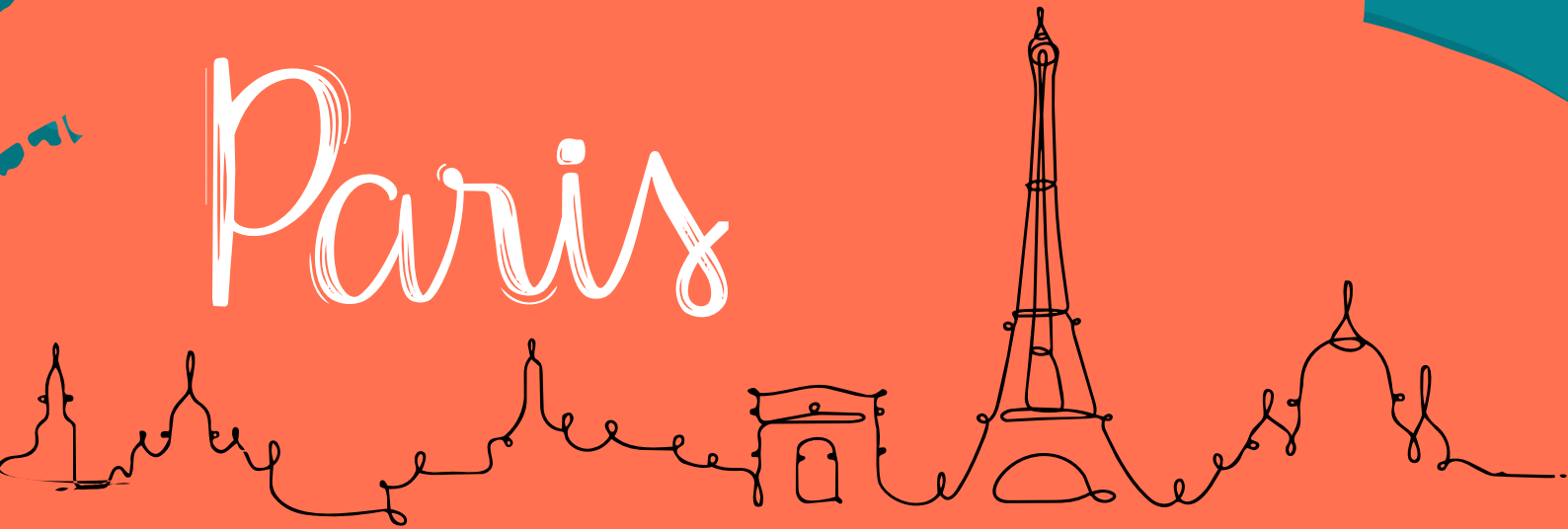




Paris



SRNT-E CONFERENCE

21-23 SEPT 2026



**BOOK
OF ABSTRACTS**





SRNT-E CONFERENCE • 21-23 SEPT 2026

Advancing the tobacco endgame:
science, policy and equity
for a healthier future.

KEYNOTE SPEAKERS

3

ABSTRACTS

6



Keynote Speakers



Dr. Stéphanie Caillé-Garnier

Research Director at the French National Centre for Scientific Research (CNRS) and Institute for Cognitive and Integrative Neurosciences of Aquitaine, University of Bordeaux.

Keynote title: **Not All Brains Are Equal: The Neuroscience of Nicotine Vulnerability**

Dr. Caillé-Garnier obtained her doctorate in Neurosciences and Neuropharmacology from the University of Bordeaux in 2000. Upon joining the CNRS in 2005, the researcher's primary focus was on the consequences of chronic drug exposure in rodents, with a particular emphasis on nicotine, opioids, and the endocannabinoid system. Subsequently, she shifted the focus of her research to the investigation of predictive factors associated with vulnerability to addictive behaviors. As a Principal Investigator (PI) or co-investigator on several university and national agency funding projects, she elucidated the role of interindividual differences, whether attributable to sex differences, cognitive or emotional profiles, in the expression of vulnerability to drug of abuse.

Beyond her academic research, Dr. Caillé-Garnier has served as a national and international expert on public health and regulatory matters. Since 2017, she has contributed as a scientific expert to ANSES (French Agency for Food, Environmental and Occupational Health & Safety) in the working group on tobacco and vaping products. Furthermore, she was a key contributor to the European "Joint Action on Tobacco Control" from 2017 to 2020, where she helped shape science-based policy recommendations.

[VISIT WEBSITE](#)



Luk Joossens

Senior Policy Advisor, Smoke Free Partnership, Brussels, Belgium

Keynote Title: **Reflections on 50 years of tobacco control in Europe**

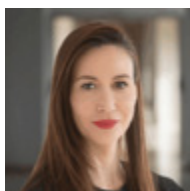
Luk Joossens obtained a Licence de sociologie, KU Leuven, Belgium, March 1972 and Maîtrise en sociologie, Sorbonne, Paris, November 1972. Since then, for almost 50 years he has contributed to the different aspects of tobacco control, such as the eight editions of the Tobacco Control Scale (2006-2026), passive smoking, advertising, labelling, taxes, smuggling (1995-2025), tracking and tracing, tobacco industry tactics, Belgian and EU tobacco control policy, FCTC, Protocol to eliminate illicit trade in tobacco products.

Luk Joossens worked closely together with consumer organisations (1973-2003), Europe against Cancer programme (1988-1995), International Union against Cancer (strategic leader 2006-2009), European Cancer Leagues (1995-2020), Belgian Foundation against Cancer (2003-2016). Framework Convention Alliance (2007-2012), Smoke Free Partnership (2022-2026). He advised extensively international bodies on tobacco control such as the World Health Organization (from 1990 to 2025), the World Bank, The European Commission and the FCTC secretariat. In 2006, he received the American Cancer Society "Luther Terry Award" for Outstanding Individual Leadership in Tobacco Control and in 2015 the World Health Organization Director-General's Special Recognition of Contribution to Global Tobacco Control.

[VISIT WEBSITE](#)



Keynote Speakers



Dr Cristina Martínez

Head of Cancer Prevention Programme and Tobacco Control Unit at the Catalan Institute of Oncology, University of Barcelona Associate Lecturer, Faculty of Nursing, University of Barcelona

Keynote title: **Why Evidence Is Not Enough: Making Smoking Cessation Happen in Hospital Care**

Dr. Martínez is a senior researcher in tobacco control and implementation science. Her main areas of research include the evaluation of tobacco control policies in health care services, by assessing the impact of smoke-free policies and evaluating the effectiveness of smoking cessation and training programs. She is currently developing and testing the effectiveness of tobacco cessation training programs among healthcare professional students, and she is also evaluating policy interventions to promote smoking cessation among vulnerable persons (mentally ill or with substance abuse disorders) and promoting smoke-free environments in private settings (homes).

[VISIT WEBSITE](#)



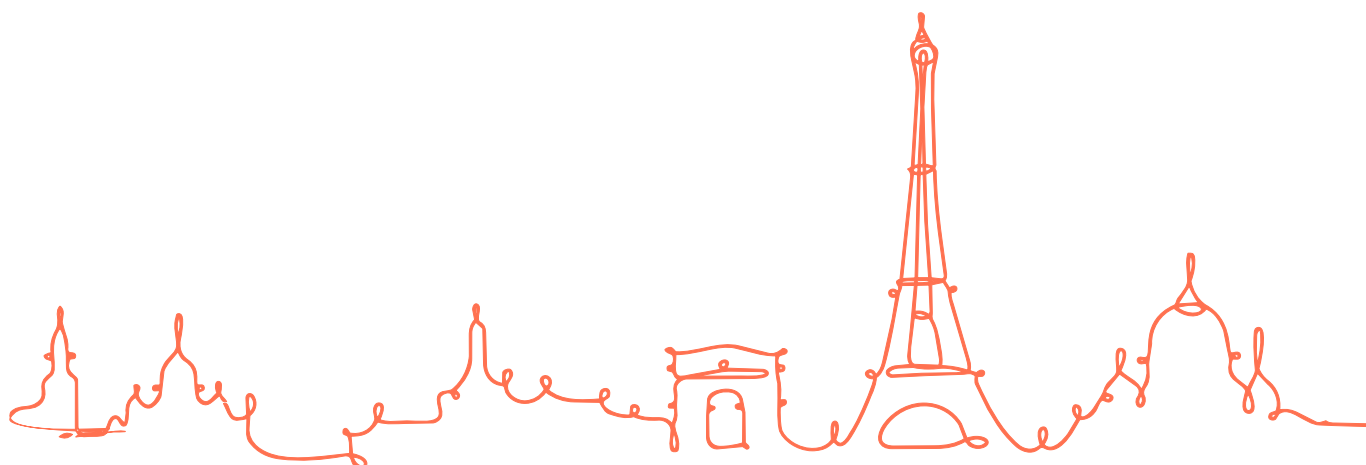
Dr Tessa Langley

Associate Professor in Public Health Economics and Evaluation, Nottingham Centre for Public Health and Epidemiology, University of Nottingham, UK

Keynote title: **Beyond Health: The Economic and Equity Implications of Tobacco and Vaping Policies**

Dr Tessa Langley is an Associate Professor in Public Health Economics and Evaluation. She completed an Honours degree in Economics and Economic History at the University of Warwick, followed by a Master's in Public Health at the University of Nottingham, before continuing to a research role, PhD and subsequently an academic position at the University of Nottingham. She specialises in public health economics and evaluation, with a focus on tobacco control and e-cigarette policy. She has led numerous studies evaluating tobacco control policies in the UK and assessing the economic impact of tobacco use, highlighting how reducing smoking rates not only improves health but also helps reduce economic inequalities. In addition to her research, Dr Langley is a member of the Royal College of Physicians' Tobacco Advisory Group, contributing to regular evidence reviews on tobacco and nicotine policy, and serves as Deputy Editor of Nicotine & Tobacco Research.

[VISIT WEBSITE](#)





ABSTRACTS

Tobacco Research with Inclusion Health Populations: What Works, What Doesn't, and What Next?

10:30 - 12:00

Tobacco Research with Inclusion Health Populations: What Works, What Doesn't, and What Next?

S. Cox^{1,2}, A. Farley³, C. Notley⁴, V. Buss^{2,5}, A. Varley⁴, Z. Swithenbank⁶¹UCL, United Kingdom²Behavioural Research UK, United Kingdom³University of Birmingham, United Kingdom⁴University of East Anglia, United Kingdom⁵University College London, United Kingdom⁶Lancaster University, United Kingdom

Workshop overview:

Background: Populations defined as 'inclusion health' (e.g., people experiencing homelessness, substance use dependencies, vulnerable migrants) face extreme social exclusion and as a result their smoking is not widely recorded, prioritised or treated. Despite high rates of smoking (up to 80%), these individuals remain substantially underrepresented in the tobacco research literature within Europe, and evidence regarding effective cessation interventions tailored to their circumstances is limited. Furthermore, methodological standards commonly employed to test smoking cessation interventions, including study designs and outcome measures, may be incompatible with the realities of research in this context and be limited in their capacity to measure the impact of interventions.

Aims: This pre-conference workshop convenes researchers with direct empirical experience of conducting tobacco-related research with inclusion health populations. Adopting a reflexive, case-study approach, contributors will appraise their own research programmes, examining the epistemological, methodological, and practical challenges encountered. Particular attention will be given to the appropriateness of prevailing research paradigms — including randomised controlled trials — for populations characterised by intersecting disadvantage, transience, and psychosocial needs, and to the potential of alternative approaches such as participatory action research, realist evaluation, and adaptive trial designs.

Methods: The workshop comprises three structured components. First, researcher-led presentations will provide critical, reflexive accounts of empirical work undertaken with inclusion health groups, foregrounding both methodological innovations and limitations. Second, facilitated breakout discussions will afford participants the opportunity to interrogate these findings, contribute complementary perspectives, and identify cross-cutting methodological and ethical tensions. Third, a collaborative plenary will synthesise emergent themes and co-develop a structured action plan delineating priority research question, recommended methodological frameworks, and strategies for embedding meaningful public and patient involvement throughout the research lifecycle.

Outcome: Participants will gain an advanced understanding of the methodological landscape surrounding tobacco research with socially excluded populations, alongside actionable guidance for strengthening research design and practice. The co-produced action plan will be disseminated as a resource to inform future research prioritisation and contribute to the reduction of tobacco-related health inequalities in the populations most severely affected.

Optimization of tobacco interventions via the multiphase optimization strategy (MOST): An informal introduction

10:30 - 12:00

Optimization of tobacco interventions via the multiphase optimization strategy (MOST): An informal introduction

L. Collins¹, M. Piper²¹New York University, United States²University of Wisconsin, United States

Background. In the classical paradigm for tobacco intervention research, intervention components are identified, pilot tested, and then assembled into a package and immediately subjected to a standard evaluation randomized controlled trial (RCT). In this approach if the intervention shows a statistically and clinically significant effect on tobacco use, it is unknown which components are effective and which are not, or whether all components are necessary. If the intervention does not show a clinically and statistically significant effect, it is unknown whether any of the individual components performed adequately, or what the next steps should be to move closer to an intervention that works. Intervention optimization, an innovative alternative to the classical paradigm, enables the investigator to look inside the “black box” and develop an intervention that strikes a strategic balance of effectiveness, affordability, scalability, and efficiency. The multiphase optimization strategy (MOST) is a framework for applying intervention optimization. **Aims.** Although the tobacco field has been a leader in applications of intervention optimization, many behavioral scientists working in tobacco have not yet considered optimizing the interventions they are developing. In this workshop Linda M. Collins (New York University, USA) and Megan Piper (University of Wisconsin, USA) will offer an informal introduction to intervention optimization. Our aim is to help attendees see how intervention optimization can relate to their research objectives. **Methods.** We will start with a brief introduction to MOST (Collins) and an example of intervention optimization in tobacco research (Piper). The rest of the time will be spent in open discussion of the intervention optimization concept and how it can further the research agendas of attendees. We will point the attendees toward resources for learning more about intervention optimization. **Results.** Attendees will gain a sense of whether and how MOST can further their research agendas. **Conclusion.** Intervention optimization is a broadly applicable paradigm that has tremendous potential for the tobacco intervention field.

Career Paths in Tobacco & Nicotine Research: Insights and Advice for Early Career Researchers

14:30 - 15:45 | AMPHITHÉÂTRE BILSKY - PASQUIER

Smoking cessation in priority populations

14:30 - 14:45

Use of tobacco and nicotine products and motivation to quit in smokers with and without coronary heart disease: A comparative analysis of two cross-sectional studies

S. Klosterhalfen¹, S. Hoppe², D. Kotz^{1,3}, U. Mons^{4,5}, S. Kastaun²

¹Institute of General Practice (ifam), Centre for Health and Society (chs), Addiction Research and Clinical Epidemiology Unit, Medical Faculty and University Hospital Düsseldorf, Heinrich-Heine- University Düsseldorf, Germany

²Institute of General Practice (ifam), Patient-Physician-Communication Research Unit, Centre for Health and Society (chs), Medical Faculty and University Hospital Düsseldorf, Heinrich-Heine-University Düsseldorf, Germany

³Department of Behavioural Science and Health, University College London, United Kingdom

⁴Department of Cardiology, Faculty of Medicine and University Hospital Cologne, University of Cologne, Germany

⁵Division of Primary Cancer Prevention, German Cancer Research Center (DKFZ), Heidelberg, Germany

BACKGROUND

Smoking significantly worsens the prognosis of coronary heart disease (CHD). However, population-based data on smoking behaviour, tobacco dependence, and quit attempts among individuals with CHD are limited. Such data are important for improving the care of this high-risk group in a targeted manner.

AIMS

The aim of the analysis was to compare smokers with and without CHD in terms of smoking behaviour, dependence, and quit attempts, and to examine the corresponding associations.

METHODS

Data from nine survey waves (06/2023-08/2024) of two population-representative cross-sectional surveys in Germany (DEBRA, OptiCor) were pooled. Individuals aged ≥ 35 years with information on smoking behaviour and CHD status were included ($n = 11,069$; 9% with CHD). Outcomes included current smoking status, tobacco dependence, motivation to quit, use of electronic inhalation products (e-cigarettes, heated tobacco products) as a cessation-related marker, and quit attempts. Regression analyses were conducted with these variables as dependent outcomes and CHD (yes vs. no) as the independent variable, adjusted for age, sex, education, and income.

RESULTS

Individuals with CHD were less likely to report current smoking than those without CHD (23.8% vs. 29.3%) and were more often former smokers (32.2% vs. 18.9%). Among current smokers, the presence of CHD was associated with higher odds of greater tobacco dependence (odds ratio [OR] = 1.63; 95% CI 1.05–2.53), higher motivation to quit smoking (OR = 1.41; 95% CI 1.02–1.96), and use of electronic inhalation products (OR = 2.53; 95% CI 1.43–4.48). Among current and recent former smokers (<1 year abstinent), CHD was also



associated with higher odds of at least one quit attempt in the past year (OR = 2.90; 95% CI 1.98–4.25).

CONCLUSION

Despite their high cardiovascular risk, about one quarter of people with CHD in Germany continue to smoke. However, they show higher quit motivation and more quit attempts, indicating a window of opportunity for cessation interventions. Population-based findings also suggest increased use of electronic nicotine products among smokers with CHD, highlighting the need to better understand their role in cessation behaviour in this high-risk population.

Use of Monetary Incentives to Promote Abstinence from Smoking Before Cancer Surgery

B. Toll^{1,2}, A. Rojewski^{1,2}, N. Baker², A. Palmer^{1,2}, S. Bernstein³, L. Fucito^{4,5}

¹MUSC Hollings Cancer Center, United States

²Medical University of South Carolina (MUSC), United States

³Dartmouth Hitchcock Medical Center, United States

⁴Yale School of Medicine, United States

⁵Yale Cancer Center, United States

Significance: Many cancer survivors are unable to quit smoking following diagnosis. Surgery is a common treatment for cancer, but many patients are also unable to achieve cessation prior to surgery. Contingency management (CM), a behavioral intervention in which abstinence is reinforced (e.g., with monetary incentives), has shown promise as an intervention for pre-surgical smoking cessation. A pilot study was conducted that revealed a significant advantage for abstinence for participants who received CM. For the present study, we tested this CM protocol among a fully-powered sample of patients undergoing surgery for cancer or suspected cancer. **Methods:** Participants (N=282) were randomized to receive either: Standard Care+Monitoring (SC; i.e., 3-6 counseling sessions+nicotine replacement therapy [NRT; patch plus lozenges]+monitoring breath CO 3 times per week with no incentives) or CM (i.e., standard care+monetary incentives delivered contingent on breath CO₂≤4ppm). The primary outcome was 7-day point prevalence abstinence (self-report verified by CO or anabasine; 7DPPA) at the time of surgery, and the secondary outcome was 7DPPA at 6-month follow-up. This study recently completed accrual and data collection for the primary outcome. **Results:** Participants were 59.1 years on average, 57.5% female, 70.2% White, and smoked 14.3 (SD=8.6) cigarettes per day on average. Evaluating only those participants who completed the timepoint and provided a biochemical sample (N=148), the CM group reported numerically higher quit rates (42.3%; 30/71) than SC (29.9%; 23/77), but this difference was not significant [adjusted RR=1.37 (0.89, 2.10), p=0.152]. When evaluating the available self-report data for those who completed the presurgical timepoint (N=182), in the CM group, 44.3% (39/88) of the patients self-reported abstinence for 7 days prior to surgery compared to 28.7% (27/94) in SC (adjusted RR=1.48 (1.00, 2.17), p=0.048). Moderators of treatment outcome and surgical outcomes will be presented. **Conclusions:** CM demonstrated higher quit rates than SC in the pre-surgical setting, though challenges with obtaining biochemical samples during the COVID pandemic resulted in increased attrition in this sample. Cancer survivors undergoing surgery are a highly vulnerable group of patients given their diagnosis and associated treatment comorbidities. Future studies should continue to investigate CM as a potential treatment for pre-surgical patients who smoke.



Adaptation and feasibility of the iSISTAQUIT intervention for smoking cessation among socioeconomically disadvantaged pregnant women in Germany

B.C. Barrera Bernal^{1,2}, T. Brand³, H. Zeeb^{2,3}, G.S. Gould⁴

¹Leibniz Institute for Prevention Research and Epidemiology- BIPS, Germany

²University of Bremen, Germany

³Leibniz Institute for Prevention Research and Epidemiology- BIPS,, Germany

⁴Southern Cross University, Australia

Background

Smoking during pregnancy and exposure to second-hand smoke remain major public health concerns, particularly among socioeconomically disadvantaged populations. Culturally adapted, multicomponent interventions may help address these inequities. This study aims to evaluate the feasibility and acceptability of the adapted iSISTAQUIT intervention in the German context.

Methods

A non-randomised mixed-methods feasibility study is being conducted in Bremen, Germany. Midwives across three implementation sites were trained to deliver the ABCD approach (Ask, Brief advice, Cessation support, Discuss psychosocial context), supported by educational resources, carbon monoxide (CO) monitoring, and nicotine replacement therapy (NRT). Pregnant people who smoke or are exposed to second-hand smoke are recruited through midwifery services. Data include baseline questionnaires, process documentation, and pre-post intervention focus groups with midwives exploring perceptions, barriers, and facilitators to implementation.

Results

To date, 20 midwives across three sites completed baseline assessments and initiated implementation, recruiting 18 pregnant people into the study. Pre-intervention qualitative findings indicate strong support for a non-judgmental and culturally sensitive approach to smoking cessation. Midwives emphasised the importance of addressing the broader social context, including partner smoking and household dynamics. After training, midwives reported that their knowledge and confidence in delivering smoking cessation support had increased, particularly in using CO monitoring as a practical and motivating tool. However, concerns were expressed regarding advising on the use of NRT during pregnancy, reflecting uncertainty about safety and communication with patients. Intervention participants highlighted the need for flexible, tailored approaches to address competing social and health priorities among disadvantaged families.

Conclusions

Initial findings suggest that implementing the adapted iSISTAQUIT intervention in routine midwifery care in Germany is feasible and acceptable. Training and culturally sensitive approaches appear to enhance provider confidence, although additional support regarding NRT guidance may be needed. Ongoing data collection will further inform the optimisation and scale-up of this intervention to reduce tobacco-related health inequities during pregnancy.

Delivering very brief advice about smoking cessation: an evaluation in social housing in Greater Manchester.

C. Kenning¹, A. Difeng Wu², E. Craddock³, J. Holloway³, W. Townsend⁴, P. Bower¹, N. Lindson²

¹NIHR Applied Research Collaboration (ARC) Greater Manchester, University of Manchester, United Kingdom

²Nuffield Department of Primary Care Health Sciences, University of Oxford, United Kingdom

³NHS Greater Manchester Integrated Care Board, United Kingdom

⁴Rochdale Borough Council, United Kingdom

Background:

Smoking prevalence in Greater Manchester (GM) fell from 18.4% in 2016 to 11.7% in 2024 but remains above the national average and concentrated in disadvantaged groups (e.g., 66% of smokers reside in social housing). Our service-academic partnership developed targeted smoking cessation interventions for people in social housing, including a face-to-face very brief advice (VBA) intervention delivered by trusted people in the community.

Methods:

Public health services in GM identified a local partner from their community and trialled a service which included VBA on smoking. We collected data via proforma and brief interviews (n=9) on (a) implementation of the service (b) experience of service delivery.

Results:

Three services agreed to participate, and 2 were successful in delivering the intervention. The two services that delivered the intervention chose different delivery models; one site worked with a local community centre and one with a social housing provider. VBA was delivered to a total of 157 individuals either in groups or one-to-one. Twenty individuals received referral to local stop smoking services, advice on swapping to vapes or a leaflet with information on the Smoke Free app. Existing relationships played an important role in set-up and delivery. It was felt that VBA integrated well with both models of delivery and added value to their existing services.

Barriers to implementation included difficulty in building new connections with local services that public health partners did not have prior relationships with; limiting recruitment to services working specifically with social housing residents; concerns that unsolicited VBA may create a barrier to people continuing to use local services; lack of funding to support delivery of the intervention. More general barriers to VBA included social norms and culture, building trust, and a perception of smoking campaigns as being judgemental.

Conclusions:

Sites reported that the VBA intervention added value to existing support they provide in their communities, and they adapted delivery to their local needs. However, a variety of barriers were also identified that should be investigated, and efforts should be made to address, in order to improve the likelihood of successful implementation and uptake.



Effectiveness of Culturally Tailored Interventions for Smoking and Vaping Cessation in Ethnic Minority Populations: A Systematic Review and Meta-analyses

Y.Y. Lee^{1,2}, T. Sun¹, J. Li¹, G. Lai², C. Gartner², J. Connor¹, C. McClure-Thomas¹, J. Brothers-Nathan¹, C. Lim^{1,2}

¹National Centre for Youth Substance Use Research, The University of Queensland, Australia

²NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame, The University of Queensland, Australia

Background: Smoking and vaping-related harms continue to disproportionately affect ethnic minority populations, underscoring the need for culturally informed interventions that support equitable cessation outcomes.

Aims: To synthesise the current evidence on the effectiveness of culturally tailored interventions for smoking and vaping cessation.

Methods: We searched five databases (EMBASE, Cochrane, PsychINFO, PubMed, and Scopus) for eligible studies published up to April 2025. Randomised controlled trials examining culturally tailored smoking and/or vaping interventions aimed at ethnic minorities with abstinence or reduction outcomes were included. Studies must compare tailored interventions against standard interventions (intensity-matched) or include tailored components in addition to standard intervention (adjunct). Data extraction included study characteristics, cultural tailoring components, and cessation outcomes. This review was pre-registered on PROSPERO (CRD420251058072).

Results: The search returned 18,133 studies, of which 34 met inclusion criteria. All included studies targeted smoking and none addressed vaping. Eighteen studies compared intensity-matched interventions while 16 were adjunct comparisons. Most studies were conducted in the United States (n=29), with three in Australia and one each South Korea, and the United Kingdom. Sixteen studies reported significant improvement on cessation outcomes for intensity-matched and adjunct culturally tailored interventions. Meta-analyses showed that intensity-matched culturally tailored interventions had a significant positive effect on short-term smoking cessation outcomes (>6 months; odds ratio [OR] = 1.61, 95% confidence interval [CI]: 1.23, 2.11), but not adjunct interventions (OR = 1.41, 95%CI: 0.91, 2.18). Both intensity-matched interventions (OR = 1.70, 95%CI: 1.31, 2.20) and adjunct interventions (OR = 1.53, 95%CI: 1.06, 2.21) showed significant positive effects on long-term smoking cessation outcomes (≥6 months).

Conclusion: Culturally tailored interventions show promising results to improve smoking cessation among ethnic minority communities; however, evidence remains limited outside of the United States. There are no current data on the effectiveness of culturally tailored vaping cessation programs. Future research should prioritise culturally tailored interventions and address vaping among these groups.



Digital innovations: development and trials

14:30 - 14:45

An mhealth smoking cessation intervention for people with TB in Bangladesh and Pakistan: Findings from a cluster randomized controlled trial

M. Boeckmann^{1,2}, M. Zahid³, K. Siddiqi²¹University of Bremen, Germany²University of York, United Kingdom³The Initiative, Pakistan

Background

Quitting smoking increases recovery in people living with tuberculosis (TB). In Pakistan and Bangladesh, the dual burden of high TB rates and high male smoking rates require effective cessation support at low costs. The Quit4TB trial assessed effectiveness of an mhealth cessation intervention compared to usual TB care in these two settings.

Methods

We conducted a multi country cluster randomized controlled trial from 2023-2025 across 27 TB clinics, randomized 2:1 for mhealth vs usual care groups. The intervention group (n=720) received text messages adapted from the WHO mTBTobacco intervention daily for 2 months, then monthly for 4 months. The usual care group (n=360) received written information on tobacco cessation strategies once.

The main endpoint was participants' self-reported continuous abstinence at six months, corroborated by a carbon-monoxide breath test. Secondary endpoints: self-reported point abstinence at nine weeks and at six months, adherence to tuberculosis therapy (measured as the number of days on treatment), overall treatment success (defined as cure plus completed therapy), treatment failure, treatment default (interruption of therapy for $\geq$ two months), and death.

Results

1,080 participants were allocated to study arms, mostly male (mHealth, 96.9 %; usual care, 95.8 %), with 985 participants (91 %) completing follow-up. For the primary outcome, 300 of 720 participants in the mHealth arm (41.7 %) achieved self-reported, biochemically confirmed continuous abstinence at six months, vs. 55 of 360 participants receiving usual care (15.3 %). In the mHealth versus usual-care comparison, mean tuberculosis-treatment adherence was 174.3 days (SD 21.5) versus 178.0 days (SD 12.1) ($p = .23$), and treatment success rates were 89.3 % versus 85.6 % (risk ratio 1.2; 95 % CI 0.9–1.6). Treatment failure (0.1 % vs. 0.5 %) and default (3.1 % vs. 1.9 %) were infrequent. Notably, mortality was reduced in the mHealth arm (3.5 %) relative to usual care (7.5 %), corresponding to a hazard ratio of 0.4 (95 % CI 0.2–0.9).

Conclusions

In the TB clinic context in Pakistan and Bangladesh, a mobile phone delivered smoking cessation intervention was successfully supporting quit attempts in participants living with TB.



From clicks to quits? Developing and delivering a digital smoking cessation campaign for social housing residents

A.D. Wu¹, C. Kenning², E. Craddock³, J. Holloway³, W. Townsend⁴, P. Bower², N. Lindson¹

¹University of Oxford, United Kingdom

²University of Manchester, United Kingdom

³NHS Greater Manchester Integrated Care Board, United Kingdom

⁴Rochdale Borough Council, United Kingdom

Background: Smoking prevalence remains disproportionately high among people living in social housing in England, contributing to persistent health inequalities. Digital media campaigns are widely used to promote cessation support; however, commonly reported engagement metrics provide limited insight into behavioural impact.

Aims: This study examines the development, delivery, and engagement metrics of a digital smoking cessation campaign designed to reach social housing residents in Greater Manchester.

Methods: A six-week paid digital campaign promoting a smoking cessation support app (Smoke Free app) was delivered via Meta (Facebook/Instagram) and programmatic display advertising. Campaign content was developed with stakeholder input and iterative refinement prior to launch, informed by behavioural evidence and prior consultation with social housing residents. Message framing shifted from initial loss-based approaches to gain-oriented messaging emphasising achievable benefits and personal agency, with attention to stigma, financial sensitivity, and representational authenticity. Two creative approaches were deployed: (1) behaviour-based messaging reframing cigarette expenditure as alternative everyday uses, and (2) app-focused messaging highlighting app features and support. Data on impressions, clicks, click-through rates (CTR), and landing page views were analysed descriptively, with stakeholder input used to contextualise observed patterns.

Results: The campaign generated 414,354 impressions and 3,101 clicks. Meta achieved a CTR of 1.38%, exceeding typical public health campaign benchmarks (~0.2%). Engagement varied by age group, with higher CTRs observed among older users. Engagement also varied across creative assets; however, delivery was algorithmically optimised toward a subset of creatives, limiting direct comparison between behaviour-based and app-focused approaches. Despite advert interaction, no increase in Smoke Free app downloads above baseline levels was observed.

Conclusions: Context-sensitive content development and targeted digital delivery generated measurable advert interaction but did not translate into uptake of cessation support. These findings highlight a gap between advert interaction and uptake of cessation support and suggest that commonly used metrics may overestimate campaign impact if interpreted in isolation, particularly in algorithmically optimised digital environments. Digital campaigns may support awareness but may be insufficient to drive cessation behaviour without integration into broader cessation strategies.



Therapeutic Alliance, Nicotine Replacement Therapy Use, and Self-Efficacy as Mediators of a Culturally Tailored mHealth Smoking Cessation Program among Latino Adults

R. Russi¹, J. Ramos-Santiago¹, E. Panizoni¹, A. Chavez¹, F. Cartujano¹, P. Cupertino¹

¹University of Rochester Medical Center, United States

Background: Latino adults in the United States are less likely than non-Hispanic White smokers to receive evidence-based cessation support. Mobile health (mHealth) smoking cessation interventions increase Latino quit rates; however, the mechanisms through which culturally tailored programs promote long-term abstinence remain unclear.

Objective: To examine whether therapeutic alliance, nicotine replacement therapy (NRT) utilization, and self-efficacy mediate the effect of Decidetexto, a culturally and linguistically tailored mHealth smoking cessation program, on self-reported 7-day point-prevalence abstinence at 6 months among Latino adults.

Methods: Data were drawn from a two-arm randomized clinical trial in which 457 Latino adults were assigned to Decidetexto (n=229; 12-week text-messaging program with free NRT) or standard of care (n=228; printed cessation booklet). Therapeutic alliance (WAI-S), NRT utilization, and self-efficacy (SEQ-12) were assessed at baseline, 3, and 6 months. The primary analytic approach used two-stage residual inclusion (2SRI) instrumental variable models to assess longitudinal mediation while accounting for time-varying confounding; product-of-coefficients analyses with mixed-effects and generalized estimating equations models were supplementary. All models were adjusted for pre-specified covariates at each mediation step.

Results: At Month 3, participants assigned to Decidetexto reported significantly higher self-efficacy (40.76 vs. 33.86; $p<0.001$), stronger therapeutic alliance (62.62 vs. 58.25; $p=0.002$), and greater NRT use (79.0% vs. 63.2%; $p<0.001$) compared with standard of care. In mediation analyses, self-efficacy ($Z=4.24$, $p<0.001$), therapeutic alliance ($Z=2.41$, $p=0.016$), and NRT utilization ($Z=2.74$, $p=0.006$) at Month 3 each significantly mediated the association between intervention assignment (Decidetexto vs. standard of care) and Month 6 smoking cessation. Improvements from baseline to Month 3 in self-efficacy ($Z=2.88$, $p=0.004$) and NRT use ($Z=1.98$, $p=0.048$) further strengthened intervention effects. Longitudinal 2SRI models showed at Month 3 mediator values predicted Month 6 levels ($\beta=0.47$, 0.42 , and 0.35 for self-efficacy, therapeutic alliance, and NRT, respectively; all $p<0.001$), and Month 6 mediator levels were independently associated with cessation outcomes.

Conclusions: Early gains in self-efficacy, therapeutic alliance, and NRT are key mechanisms through which Decidetexto influences smoking cessation among Latino adults. Culturally tailored mHealth interventions targeting these processes during the initial weeks of treatment may enhance their impact and help reduce tobacco-related disparities in Latino populations.



Digital Health Engagement and Acceptability of the StepOne Smartphone App for People Not Ready to Quit Smoking: A Randomized Controlled Trial

S. Mahmoodianfard^{1,2}, T. Gelibo¹, N. Patel¹, J. Heshmati¹, E. Quirouette¹, H. Mir^{1,2}

¹University of Ottawa Heart Institute, Canada

²University of Ottawa, Canada

Background: Digital health interventions may offer a scalable approach to support smoking behavior change; however, most evidence-based smoking cessation programs and smartphone applications target individuals who are ready to quit, and engagement among those not ready to quit is not well understood.

Objective: To evaluate engagement and acceptability of StepOne, a 14-day smartphone-based program, among individuals not ready to quit smoking.

Methods: A total of 382 adults referred to the Ottawa Model for Smoking Cessation who were not planning to quit smoking within the next 30 days were randomized to either the StepOne program intervention or usual care (educational brochure). At baseline, digital health experience, technology use, and readiness were assessed for all participants. Engagement with the program, acceptability, satisfaction, perceived usefulness, and user feedback were assessed at 14 days in the intervention group.

Results: At baseline, participants reported frequent smartphone use, with 58.3% using their smartphone more than 25 times per day. Participants also reported prior virtual care experience (26.5%), high comfort using smartphone applications (mean 4.62/5), and moderate willingness to use a physician-prescribed cessation app (mean 6.94/10). Among intervention participants, most reported feeling curious (66.9%) or excited (19.6%) about using the program. Engagement with the 14-day program was high, with approximately 79% of participants responding to daily messages and completing daily activities on most days or every day. Most participants agreed that notifications encouraged app use (74.7%), daily challenges motivated continued use (72.2%), and the information provided was useful (77.8%). Overall satisfaction was high, with a mean program rating of 7.59/10, and participants reported a high likelihood of continuing the program (8.30/10) and recommending it to others (8.10/10). About half of participants (51.2%) indicated that the program should be longer than 14 days.

Conclusions: The StepOne smartphone program demonstrated high engagement, acceptability, and satisfaction among individuals not ready to quit smoking. Therefore, digital interventions such as StepOne may help engage individuals in the pre-action stage and support progression toward readiness to make a future quit attempt.

Keywords: Keywords: Smoking cessation; Digital health; Smartphone application; Engagement; Acceptability

Meet Peter: A safe, clinically-integrated supportive chatbot for tobacco and e-cigarette cessation

P. Selby¹, P. Velmovitsky², K. Jelich², S. Veldhuizen¹, S. Hussain¹, I. Aditya², J. Cafazzo³

¹Centre for Addiction and Mental Health, Canada

²University of Toronto, Canada

³University Health Network, Canada

Background

Large language models (LLMs) have the potential to dramatically expand access to psychotherapeutic interventions. As well as clear demonstration of effectiveness, however, LLM-provided treatment requires integration with clinical care and close attention to safety and equity. Interactions with AI systems is often through text, but some users may not have relevant skills or necessary devices, and text lacks the immediacy and naturalness of voice conversations. LLMs may also periodically provide responses that are misleading or unhelpful. These issues are important barriers to the wider adoption of AI-based treatment.

Aim

We aimed to develop a safe, telephone-accessible voice agent ("Meet Peter") providing supportive coaching for people interested in quitting tobacco or e-cigarettes. To support integration with care, we also aimed to automatically generate structured clinical notes from conversations.

Methods

We worked with an engineering team to design a voice-based supportive coaching companion based on a secure LLM (UHN-Azure) and VAPI. We used iterative prototyping, testing, and regular team meetings to refine the system prompt that defines bot behaviour. Caller-identification enables LLM memory of past interactions. To address safety concerns, we used agentic supervision and applied prompt-based rules to advise and redirect callers who expressed serious psychological distress or thoughts of self-harm. Notable challenges concerned response length, response latency, and focus.

Results

The working chatbot offers two personae (one male, one female), can be contacted by phone or online, and is capable of conducting a natural conversation and gathering clinical data. The bot provides support using motivational interviewing techniques and medical information based on scientific work. Constraints prevent the bot from making clinical decisions or diagnosing conditions. Detection of distress prompts referral offers to crisis lines or other supports and generates alerts for human review. We have also developed a pilot randomized trial to assess the bot's acceptability and to constrain effect sizes for a fully-powered study.

Conclusion

AI and voice-text technology supports the development of practical automated counseling tools that are accessible, safe, and integrated with clinical care.



Current issues in nicotine pouch research: From the lab to policy

14:30 - 14:45

Chemical and Physical Characteristics of Oral Nicotine Pouches Purchased in the US

A. El Hellani¹, A. Adeniji¹, R. Singh Thakur¹, M. Rieger¹, S. Suraapaneni¹, L. Atkinson¹, T. Wagener¹, B. Keller-Hamilton¹, M. Brinkman¹

¹The Ohio State University, United States

Background. The oral nicotine pouch (ONP) market is in continuous flux, with new products or new features of established products being introduced regularly. Continuous monitoring of the chemical and physical characteristics of the market-leading ONP brands is necessary to understand their abuse liability.

Methods. We characterized two main physical characteristics of US-purchased ONPs that could affect nicotine uptake: 1) percent moisture using a volatile oven and 2) particle size distribution using certified mesh sieves (180 μm to 2000 μm). We chemically characterized ONPs to determine: 1) nicotine concentration using liquid-liquid extraction and gas chromatography tandem mass spectrometry (GC-MS) analysis, 2) nicotine form using pH analysis, 3) nicotine isomer using chiral liquid chromatography, and 4) flavor profile using suspect screening on GC-MS.

Results. Our analysis showed that ONPs have a wide range of percent moisture (2-37%). Most of the analyzed ONPs showed particle sizes between 180 and 600 μm , except for one brand that showed distribution of particles across all mesh sizes. Nicotine concentrations ranged between 1.1 and 9.4 mg/pouch, with measured concentrations lower than the labeled nicotine strengths. More than 80% of the analyzed ONPs have more than 70% freebase nicotine form. Only one brand contained a racemic mixture of nicotine isomers (50/50), while all the remaining contained S-nicotine. Analysis of the flavor profile of different ONP brands showed different makeup of nominally similar flavors, and variable chemical content based on flavors and nicotine strengths within the same brand.

Conclusions. Our chemical and physical analyses showed wide variability in moisture, particle size, nicotine content and form, and flavor profile across ONP brands. All these characteristics could impact nicotine and flavor delivery, and hence ONP abuse liability. There is a critical need for continuous monitoring of the chemical and physical makeup of ONPs to inform the public health debate on ONP's role as a reduced-risk alternative product for people who smoke or use smokeless tobacco products.



Exploring differences in nicotine pouch use topography and product preferences according to moisture level: Results from a crowdsourced cross-sectional survey

B. Keller-Hamilton¹, A. El-Hellani¹, A. Adeniji¹, A. Wermert¹, H. Curran¹, K. Cooper¹, L. Atkinson¹, S. Suraapaneni¹, P. Tomko¹, M. Brinkman¹

¹The Ohio State University, United States

Background. Moisture levels vary across oral nicotine pouch (ONP) brands and across the US and EU markets. However, moisture's role in ONP use behaviors is unknown. We investigated how moisture relates to ONP use topography and product preferences.

Methods. We surveyed US adults who used ONPs via an online panel (Prolific) in 2026. Participants (N=560) reported demographics, ONP use topography, product characteristics, and duration of flavor and nicotine effects. We linked participants' usual ONP brands with recent analyses characterizing moisture in major ONP brands (categorized as low: <10% vs. medium/high: >10%). We estimated associations between ONP moisture level and measures of ONP use topography and product preferences using generalized linear regression models adjusted for sex, race, age, education, and other tobacco use.

Results. Participants (mean age=33.8 years, 71.1% men) tended to use low-moisture ONPs (60.2%). Participants using high (vs. low) moisture ONPs had greater odds of using ONPs every day (aOR=1.50, p=0.04) and used 19% more ONPs per day (aRR=1.19, p=0.001). Participants using high (vs. low) moisture ONPs had greater odds of using fruit-flavored (vs. tobacco/unflavored) ONPs (aOR=2.53, p=0.01) and ONPs with 6-9 mg (aOR=1.60, p=0.02) or >10 mg (aOR=3.01, p=0.007) nicotine/pouch vs. <5 mg nicotine/pouch. Participants using high (vs. low) moisture ONPs also had greater odds of reporting their usual brand of ONP's flavor lasted for 31-60 minutes (aOR=1.67, p=0.007) and for >60 minutes (aOR=2.29, p=0.006) vs. <30 minutes. Finally, relative to reporting that the most important characteristic of their usual brand was the flavor, those using high (vs. low) moisture ONPs had greater odds of choosing their usual brand because it was less expensive (aOR=4.36, p<0.001), and they had lower odds of choosing their usual brand because it was easier to find (aOR=0.45, p=0.01). We observed no differences in typical use duration, duration of nicotine effects, reasons for removal, or use of multiple ONPs at once across ONP moisture groups.

Conclusions. ONP moisture level was associated with differences in product preferences and use behaviors in this large, cross-sectional survey. Experimental research probing the mechanisms underlying these differences could advance understanding of the product-related drivers of ONP use behaviors.

Adolescent and Young Adults (AYA) Using Oral Nicotine Pouches (ONPs) and/or E-Cigarettes (ECs): Associations of Harm/Addiction Perceptions, Peer Use and Quit Intentions

A. Tackett^{1,2}, M. Roberts^{1,2}, N. Breitborde¹, J. Patterson^{1,2}, T. Wagener^{1,2}, A. Ferketich^{1,2}

¹The Ohio State University, United States

²The Center for Tobacco Research at The James Comprehensive Cancer Center, The Ohio State University, United States

Background: ONPs are increasingly used by US AYAs, with prevalence rates reaching cigarette use. This study examined associations between perceived harm, peer use, past quit attempts, and quit intentions among AYAs who use ONPs.

Methods: Baseline data were analyzed from AYAs (N=508) enrolled in the US-based Generation Z Health Study who either exclusively used ONPs (n=215; Mage=22 years [SD=2 years]) or dual used ONPs+e-cigarettes (n=293; Mage=21 years [SD=2 years]). Participants reported past 6-month quit attempts and stage of change for intentions to quit (No plans, Precontemplation [planning to quit in next 6 months], or Active [currently trying or planning to quit in next 30 days]). Outcomes included: a) perceived harm (No harm vs. Harm); b) perceived addictiveness (No vs. Yes); and c) Peer Use (None vs. Some/All). Associations were examined using Chi-square tests.

Results: Among exclusive users of ONPs, those with a past quit attempt were more likely to perceive ONPs as harmful than those without a past attempt ($p < .001$), with no differences in perceived addictiveness or peer use (p 's = .38-.49). Among dual users, those with a past quit attempt were more likely to perceive ONPs as harmful ($p = .02$) and report peer use ($p = .03$), while those without a past quit attempt were more likely to perceive ONPs as not addictive ($p = .01$). Across the stages of change, both exclusive ($p < .001$) and dual ($p = .004$) users of ONPs in the contemplation or active stages were more likely to perceive ONPs as harmful than those without plans to quit. No differences were observed for peer use or perceived addictiveness by quit intentions and use category (p 's = .08 -.74).

Conclusions: ONP harm perceptions vary by quit history and quit intentions. AYAs who have engaged in a quit attempt or are in the active or contemplation phases of change are more likely to perceive ONPs as harmful. As use of ONPs continues to increase among this age demographic, public health messages related to perceptions of harm may be beneficial for reducing AYA use, enhancing motivation to quit, and support those who are ready to quit.

Oral Nicotine Pouch (ONP) Brands in the United States

C. Shang¹, S. Ma¹, V. Thai¹, S. Zhang¹, L. Xu¹, D. Mays¹, J. Chen¹

¹OSU, United States

Background: Oral nicotine pouches (ONPs) have shown rapid sales growth in the U.S. in recent years. Despite their rising popularity, an ONP brand database does not exist, and the level of competition among ONP brands has not been assessed, which is crucial for marketplace surveillance and effective policymaking.

Methods: We integrated survey data, sales data, and online brand monitoring to build an ONP brand database. For survey data, we used National Youth Tobacco Survey (NYTS) 2024-2025, which contain self-reported ONP brands used by U.S. youth. For sales data, we used Nielsen ScanTrack 2024-2026, which records ONP brands sold at point-of-sale (e.g., grocery stores) in the US. For online monitoring, we developed an automated tool, "ONPWebScout," in 2025, which leverages large language models (LLMs) and the Google Search Application Programming Interface to track emerging ONP brands. To measure competition among ONP brands, we calculated the Herfindahl-Hirschman Index (HHI) of market concentration using annual data from Nielsen (2024-2025) and NYTS (2024-2025).

Results: As of April 2026, 233 unique ONP brands were identified using the integrated sources. Among them, 88% (n = 205) were from ONPWebScout, 6.9% (n = 16) were from the NYTS, and 20.17% (n = 47) were from Nielsen. Four brands reported in the NYTS (Killa, Übbs, Lost Mary, and Loon) were not captured by Nielsen data. ONPWebScout was able to capture three out of these four brands, except for Lost Mary. In addition, ONPWebScout detected about five new brands per month in 2025-2026. The competition among ONP brands in overall sales has intensified between 2024 and 2025, with a decrease of HHI or market concentration from 2,903 in 2024 to 2,791 in 2025. During the same period, brand competition based on market shares among youth has decreased, with the HHI from NYTS increasing from 3,156 in 2024 to 3,362 in 2025.

Conclusions: It is important to track ONP brand availability and growth using point-of-sale and online monitoring. Unique ONP products sold online have rapidly increased between 2025 and 2026. While the leading ONP brands dominate use among youth, the total sales market became more competitive between 2024 and 2025.



Population level interventions and strategies for Tobacco Control and the Endgame

16:30 - 16:45

Dose-response between tobacco advertising, promotion and sponsorship exposure and current heated tobacco product use in Japan

H. Jamil^{1,2}, Y. Isaka³, K. Togawa⁴, T. Tabuchi⁵, K. Katanoda¹¹Division of Population Data Science, National Cancer Center Japan Institute for Cancer Control, Japan²Graduate School of Public Health, St. Luke's International University, Japan³Institute of Medicine, University of Tsukuba, Japan⁴Early Detection, Prevention, and Infections Branch, International Agency for Research on Cancer (IARC/WHO), France⁵Department of Public Health, Graduate School of Medicine, Tohoku University, Japan

Background. Japan has the world's largest heated tobacco product (HTP) market and continues to rely on voluntary industry self-regulation rather than a comprehensive ban on tobacco advertising, promotion, and sponsorship (TAPS). Channel-specific evidence on TAPS exposure mapped to WHO Framework Convention on Tobacco Control (FCTC) Article 13 is currently missing.

Methods. We analysed the 2025 Japan Society and New Tobacco Internet Survey (JASTIS) wave (25,424 adults aged 15–84). Current HTP use was occasional or near-daily use of any of six brands sold in Japan. Respondents reported past-six-month recognition of 20 TAPS channels across five Article 13 domains (traditional media, point of sale, digital, sponsorship and entertainment, sales promotions). We estimated weighted prevalence, cumulative dose-response, and channel-level adjusted odds ratios (aORs) with Benjamini-Hochberg FDR correction, stratified by cigarette smoking status.

Results. Current HTP use was reported by 2,727 respondents (weighted prevalence 11.1%); 50.7% reported seeing ≥ 1 TAPS channel. Weighted HTP prevalence rose from 5.8% (no channels) to 30.1% (≥ 6), with parallel aORs from 1.31 (95% CI 1.01–1.69) for 1–2 channels to 4.01 (3.25–4.95) for ≥ 6 (P-trend < 0.001). All 20 channels remained associated with HTP use after FDR correction. The largest aORs were for sales promotion channels (discounts and cashback 4.74, branded accessories and gifts 3.45, free samples 3.36, checkout displays 2.68), followed by digital (2.31 to 2.53) and point-of-sale (2.31 to 2.66) channels. aORs for traditional media were smaller. The dose-response gradient was steepest among never cigarette smokers (high versus no exposure 6.36, 95% CI 3.95 to 10.25), compared with 4.45 in former cigarette smokers and 2.63 in current cigarette smokers.

Conclusions. TAPS exposure showed a dose-response association with current HTP use across 20 channels mapped to WHO FCTC Article 13, with the largest associations for channels least restricted by Japan's voluntary self-regulation, such as sales promotions, digital, and point-of-sale. The association extended to adults who had never smoked cigarettes, indicating that HTP marketing relates to use beyond product substitution among current cigarette smokers.



The impact of the Dutch tobacco sales ban in supermarkets on impulse purchases and smoking cessation: mixed-methods evidence from adults who smoke

M. Wagijo¹, F. van den Brand¹, M. Candel¹, M. Willemsen^{1,2}, W. Vermeulen³, M. Leegwater⁴, G. Nagelhout^{1,5}

¹Maastricht University, Netherlands

²Trimbos Institute, Netherlands

³SEO Amsterdam Economics, Netherlands

⁴Platform31, Netherlands

⁵Avans University of Applied Sciences, Netherlands

Background: In July 2024, the Netherlands implemented a ban on tobacco sales in supermarkets as part of a broader strategy to reduce tobacco availability. This study evaluated the short-term impact of the ban on impulse tobacco purchases and smoking cessation among adults living in disadvantaged and non-disadvantaged neighborhoods.

Methods: A longitudinal online survey was conducted among 1,800 Dutch adults who smoked at study inclusion, with data collected in 2022, 2023, and 2024. Outcomes included impulse tobacco purchases, urge to buy tobacco, intention to quit smoking, quit attempts, and smoking cessation. Generalized Estimating Equations were used to assess changes over time, adjusting for sociodemographic and smoking-related covariates. To contextualize the survey findings, qualitative interviews were conducted with 23 adults, exploring attitudes, perceived changes in smoking and purchasing behavior after the supermarket sales ban.

Results: Quantitative analyses showed no significant change in impulse purchases after implementation of the supermarket sales ban compared with pre-policy trends ($p=0.93$). No significant changes were found for urge to purchase tobacco ($p=0.43$), intention to quit ($p=0.58$), or quit attempts ($p=0.09$). Smoking cessation increased significantly among adults living in non-disadvantaged neighborhoods ($p<0.001$), but not among those living in disadvantaged neighborhoods ($p=0.19$). Qualitative findings suggested that most participants shifted purchases from supermarkets to nearby gas stations, convenience stores, specialist tobacco shops, or cross-border sources. Participants described the ban as inconvenient rather than behavior-changing, although some reported fewer unplanned purchases or felt that removing tobacco from supermarkets could support people already trying to quit. Despite mixed or negative personal views, many participants supported the broader aim of reducing youth smoking and perceived the ban as a positive development for children and future smoke-free generations.

Conclusion: After the tobacco sales ban in supermarkets, there were higher odds of smoking cessation in non-disadvantaged areas. All other smoking-related outcomes were not associated with significant short-term behavioral changes. The qualitative findings suggest that the limited impact may be explained by continued tobacco availability in other retail settings. A more comprehensive policy approach is recommended, including further tobacco sales outlet restrictions and a licensing system.



A Scoping Review of Tobacco Retailer Segmentation: Implications for Endgame Policy

C. Rosario¹, M. Griffiths¹, A. Abdu¹

¹UNC Greensboro, United States

BACKGROUND: Retail environment policies are central to tobacco endgame strategies. The retail environment remains a major source of risk exposure, with tobacco retail density inequitably distributed across communities in ways that compound existing health disparities. Segmentation has improved the precision and equity of tobacco control interventions. Applying this logic to the retail environment represents an underexplored opportunity to strengthen endgame policy design. Given that retailer characteristics impact adherence to endgame policies, we sought to understand retailer heterogeneity in the literature as an important foundation.

METHODS: Following PRISMA-ScR guidelines, we conducted a scoping review yielding. A systematic search yielded 160 screened records and 96 studies published between 2000 and 2026 met inclusion criteria. Reviewers used a 23-item extraction form to capture study design, segmentation basis, segmentation purpose, and key study findings.

RESULTS: Included studies spanned 13 countries and 74% were US-based. Within the literature, retailers were organized according to six themes: store type, geographic and sociodemographic context, marketing practices, compliance and policy response, product portfolio, and retailer motivations and identity. Store type was the primary basis for categorization. Despite this, patterns across retailer types emerged with endgame implications. Tobacco and vape specialty shops showed the highest compliance violation rates in every country where they were studied. Convenience stores were disproportionately concentrated in high-poverty, minority, and youth-dense communities across the US, UK, China, and New Zealand. Chain retailers showed greater compliance with sales restrictions than independent retailers across jurisdictions. Small independent retailers, primarily in the US, UK, and Scotland, more frequently reported financial vulnerability to tobacco control restrictions. Retail owner characteristics, motivations, or identity were examined in fewer than 10% of studies and almost exclusively in US and UK qualitative research. No study systematically applied a segmentation framework or formal methods to derive retailer profiles from data.

CONCLUSION: A one-size-fits-all retail endgame strategy risks reproducing inequity. Retailer heterogeneity follows patterns across national contexts. Yet, segmentation frameworks needed to act on these patterns do not exist in the literature. Formally derived segmentation is a necessary tool for equitable tobacco endgame policy.



National survey of public acceptance of tobacco endgame policies in the Republic of Georgia

I. Kachkachishvili¹, G. Bakhturidze², A. Kirpich², L. Popova²

¹Tbilisi State University, Georgia

²Georgia State University, United States

Background:

Tobacco use remains a global public health crisis, causing over 7 million deaths annually. The tobacco endgame—policies aiming to phase out tobacco consumption—includes measures such as a tobacco free generation (TFG), retail outlet reductions, very low nicotine standards, and licensing. Public support is crucial for adoption. Georgia's National Tobacco Control Strategy calls for endgame planning, but awareness of the 2040 goal and public attitudes toward specific endgame policies have not been systematically assessed.

Aim:

This paper examines Georgia's shift from traditional tobacco control to endgame strategies in line with WHO FCTC principles and global health standards, emphasizing public attitudes and political will as key drivers of evidence-based policy change.

Methods:

In October 2024 we conducted a nationally representative, face to face cross sectional survey of 1,300 adults (≥ 18 years) in Georgia (multistage probability sampling; completion rate $\approx 91\%$). Interviews were in Georgian, Armenian, or Azerbaijani. Respondents reported awareness of the Tobacco Free Georgia 2040 goal and support (5 point Likert) for multiple endgame policies; responses were dichotomized (support vs. no support). Weighted multivariable logistic regression produced adjusted odds ratios (aOR) with 95% CIs.

Results:

Only 10.5% were aware of the Tobacco Free Georgia 2040 goal; once informed, 76.1% supported it. Sample: 53.7% female; smoking status: 50.5% never, 38.5% current, 11.0% former. High support was observed for raising purchase age to 21 (80.8%) and reducing nicotine content (75.3%); majority support also existed for licensing retailers, flavour bans, and industry accountability. Current smokers were markedly less likely than never smokers to support all assessed policies (e.g., licensed shops aOR ≈ 0.10 ; outlet reduction aOR ≈ 0.16 ; $p < 0.005$). Older adults, women, and rural residents showed higher support for several measures. Awareness was lower among higher educated groups, but support increased once informed.

Conclusion:

Georgian adults broadly support ambitious tobacco endgame measures—particularly youth focused and nicotine reduction policies—despite low baseline awareness of the 2040 goal. Policymakers can prioritize high support interventions (Tobacco 21, nicotine reduction, retail licensing) while using targeted communication to raise awareness and build backing for more contested measures. Mitigating industry interference and tailoring outreach to current smokers will be critical for successful implementation.



Anticipated behavioural responses to potential regulatory actions to reduce nicotine in cigarettes to non-addictive levels: Findings from the 2020 and 2022 ITC Smoking and Vaping Survey in Australia, Canada, England and the United States

K. Morphet^{1,2}, A. Cho^{1,2}, S. Gravely³, R. Borland⁴, K. East⁵, M. Cummings⁶, G. Chan⁷, T. Smith⁶, A. Hyland⁸, G. Fong^{9,10}, H. Kang^{1,2}, C. Gartner^{1,2}

¹School of Public Health, The University of Queensland, Australia

²NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame, Australia

³Department of Psychology, University of Waterloo, Canada

⁴School of Psychology, Deakin University, Australia

⁵Department of Primary Care & Public Health, Brighton and Sussex Medical School, University of Brighton and University of Sussex, United Kingdom

⁶Department of Psychiatry and Behavioral Sciences, Medical University of South Carolina, United States

⁷National Centre for Youth Substance Use Research, The University of Queensland, Australia

⁸Department of Health Behavior, Roswell Park Comprehensive Cancer Center, United States

⁹School of Public Health Sciences, University of Waterloo, Canada

¹⁰Ontario Institute for Cancer Research, Canada

Background: A very low nicotine content (VLNC) standard for cigarettes could increase quitting and reduce uptake by making cigarettes non-/minimally addictive, but no jurisdiction has implemented the policy.

Aim: We measured anticipated behaviours in response to a proposed VLNC policy among adults who smoke cigarettes.

Methods: We analysed cross-sectional data from the International Tobacco Control Four Country Smoking and Vaping Survey, an online survey in Canada, the United States (US), England, and Australia. Respondents were adults (≥ 18 years) who smoked at least monthly in 2020 ($n=4297$) and 2022 ($n=2985$). The primary outcome was anticipated behaviour if a VLNC policy were implemented. Weighted descriptive analyses compared countries, and multinomial regressions examined associations with smoking behaviours and VLNC beliefs. Data from 2020 and 2022 were analysed separately due to differing response options.

Results: The most common anticipated behaviour was to smoke VLNCs (44.8% in 2020; 37.0% in 2022), followed by quitting without using other substitute nicotine products (16.5% in 2020; 14.3% in 2022). The least commonly selected response in 2020 was to switch to NRT (2.3%) and, in 2022, it was to switch to a different type of smoked tobacco product (e.g., cigars) (3.2%). Those intending to quit in next six months were more likely to respond that they would quit without taking up another product ($aOR_{2020}=3.3$, 95% confidence interval (CI) range 2.7-4.0; $aOR_{2022}=3.1$, range 2.5-3.9, vs. those intending to smoke VLNCs or seek nicotine-containing cigarettes). High smoking intensity was associated with lower odds of quitting without substitution ($aOR_{2020}=0.5$, 95% CI range 0.4-0.7; $aOR_{2022}=0.4$, range 0.3-0.6 vs. non-daily). Current vaping (i.e., dual use) was associated with anticipating switching to vaping or NRT in 2020 ($aOR_{2020}=4.8$, 95% CI range 3.5-6.7 vs. never vaped) and switching to a non-smoked nicotine product in 2022 ($aOR=4.0$, range 2.3-6.9, vs. never vaped).

Conclusions: Most participants anticipated smoking the VLNCs if the policy was implemented, but there was substantial variation and uncertainty. Those intending to quit in the near future had greater odds of anticipating that they would quit nicotine products altogether if a nicotine reduction policy was introduced.



Tobacco Control and Smoking Cessation in LMICs

16:30 - 16:45

Maintenance of smoking cessation one year after the final consultation: Experience of a tunisian cessation clinic

Y. Ayedi^{1,2}, C. Harizi^{1,2}, S. Mechraoui¹, R. Fakhfakh^{1,2}¹Department of Preventive and Community Medicine, Abderrahmane Mami University Hospital, Ariana, Tunisia²Faculty of Medicine of Tunis, University of Tunis El Manar, Tunis, Tunisia

Introduction: Despite the proven efficacy of structured smoking cessation programs, maintaining long-term abstinence remains difficult, with a high risk of relapse, particularly during the first months following cessation. Evaluating the actual duration of abstinence after specialized care is therefore an essential indicator for assessing intervention effectiveness and identifying critical periods that require reinforced follow-up. The objective of our study was to determine the duration of successful abstinence following our smoking cessation program.

Methods: We conducted a longitudinal retrospective study including all patients who attended the smoking cessation clinic at the Preventive and Community Medicine department of Abderrahmane Mami University Hospital between January 2022 and December 2024. Patients were contacted by telephone at least one year after their final visit. For this specific analysis, we focused on patients who attended at least three consultations. "Tobacco-free survival" data were analyzed using the Kaplan–Meier method with SPSS software.

Results: During these three years, 257 patients with three or more consultations were contacted by telephone. We successfully reached 163 consultants, representing a response rate of 63.4%. The sex ratio (M/F) was 3.43. The median number of consultations was 6 (IQR 4–10). Seventy percent of patients (n = 182) achieved successful smoking cessation on their last visit. The median follow-up duration at our clinic was 63 days (IQR 30–128 days).

Among the respondents, 36.6% (n = 60) maintained complete abstinence at the time of the phone call, with a median abstinence duration of 450 days. Of these 60 patients who achieved abstinence, 81% reported significantly better health than before cessation. Forty-one percent (n = 67) resumed cigarette consumption, with a median relapse time of 90 days (IQR 23–180 days).

Conclusion: This study demonstrates that patients who adhere regularly to a smoking cessation program can maintain prolonged abstinence, confirming the value of structured and repeated care. This highlights the need to strengthen medium- and long-term follow-up, particularly through extended support interventions and regular contact, to consolidate initial cessation benefits and improve abstinence maintenance.



The Missed Opportunity: A Cross-Sectional Survey of Hospital-Based Smoking Cessation Support in Bogotá, Colombia

L.A. Torres López¹, L.H. Alba², N. Becerra-Martinez³, O.M. Garcia⁴, K. Martínez de Hoyo⁴, A. Muñoz Florez⁵, A.J. Rose⁶, Y. Bar-Zeev¹

¹Braun School of Public Health and Community Medicine, Hebrew University of Jerusalem, Israel

²Family Medicine Service-Hospital Universitario San Ignacio, Preventive and Social Medicine Department, Pontificia Universidad Javeriana, Bogotá, Colombia

³Javesalud (Healthcare Institution), Bogotá, Colombia

⁴Internal medicine department, Fundación Santafé de Bogotá, Bogotá, Colombia

⁵Research department, Fundación Cardioinfantil-Instituto de Cardiología, LaCardio, Bogotá, Colombia

⁶Braun School of Public Health and Community Medicine, Hebrew University of Jerusalem, Jerusalem, Israel

Background: Hospitalization is a key opportunity for smoking cessation (SC), yet delivery remains inconsistent. While the 5As model (Ask, Advise, Assess, Assist, Arrange) is considered standard practice, the 3As (Ask, Advise, Act) may be more feasible in busy clinical environments.

Aim: To assess Healthcare Professionals' (HCPs) knowledge, attitudes, and practices related to hospital-based SC support, using the COM-B (Capability, Opportunity, Motivation, Behavior) model as a theoretical framework.

Methods: An online cross-sectional survey (July-October 2025) was conducted across three hospitals in Bogotá, Colombia. One hospital had an institutional SC program. We assessed SC knowledge (score 0-100), attitudes (COM-B informed), practice frequency of 5As and 3As, and implementation considerations related to counseling, pharmacotherapy, follow-up and training. High performance was defined as reporting "always/often" across all practice items. Multiple imputation addressed missing age data (14.3%).

Multivariable logistic regression identified predictors of high 3As performance.

Results: Among 224 HCPs (mean age 34 years; 66% women; 57% physicians; 75% never smoked), 13% reported high 5As performance versus 64% for the 3As. In the final multivariable model, being a physician (Adjusted Odds Ratio [AOR] 5.7, $p < 0.001$, 95% CI 2.2-14.8) and positive attitudes towards SC (AOR 2.0, $p = 0.013$, 95% CI 1.2-3.4) were independently associated with high 3As performance. We observed a significant interaction between professional role and the presence of an institutional SC program (AOR 5.8, 95% CI 1.0-33.3, $p = 0.05$) suggesting that organizational infrastructure may influence SC practices across provider groups. Provider-level knowledge, training, and years of experience were not significant predictors of high 3As performance. Regarding implementation, 67% favored multidisciplinary delivery, 80% supported counseling immediately after identification, 56% considered combined counseling and pharmacotherapy feasible, and around 80% identified time, lack of staff, and patient adherence as barriers for follow-up. Almost all (98%) reported needing additional SC training.

Conclusions: The 3As model may be more feasible than the 5As model. Practice is driven by positive attitudes towards SC, professional role identity, and organizational context rather than knowledge, training, or experience alone. These findings will inform the co-design of a hospital-based SC intervention in Colombia, prioritizing behavioral and contextual determinants, as well as implementation considerations.



Developing and evaluating a culturally appropriate school-based e-cigarette prevention intervention: A mixed-methods study in Vietnam

P. Nguyen¹, N. An Hoang¹, S. Kwarteng², N. Nguyen Thi Kim¹, B. Halpern-Felsher³, T. Tran Thi Phuong¹, M. Hoang Van¹

¹Hanoi University of Public Health, Vietnam

²School of Public Health, Georgia State University, United States

³Stanford REACH Lab, Department of Pediatrics, School of Medicine, Stanford University, United States

Background: This study aimed to develop and evaluate a culturally appropriate school-based e-cigarette prevention curriculum for Vietnamese students.

Methods: We conducted a mixed-methods study in Hanoi in 2025. We conducted four in-depth interviews with key stakeholders and nine focus group discussions with students, parents, and teachers to develop and refine the intervention. We then implemented a 1-month pilot study of an e-cigarette prevention at Phu Thuong Secondary School, including four main components: (1) posters/infographics displayed throughout the school campus from the Stanford REACH Lab and WHO Vietnam; (2) a 45-minute school-wide talk delivered by a respiratory expert; (3) a classroom-based curriculum adapted from the U.S. Stanford REACH Lab's You and Me, Together Vape-Free program, delivered by teachers over two weeks; and (4) creative activities, including a drama competition and a drawing/poster-design contest focused on e-cigarette prevention themes. Pre-post intervention surveys were conducted among 410 students to assess changes in e-cigarette-related knowledge, perceptions, and behaviors. Additionally, a short training assessment was conducted among 40 teachers to evaluate their confidence in delivering the e-cigarette curriculum.

Results: From the qualitative study, stakeholders underscored the urgency and importance of implementing a school-based e-cigarette prevention program. Teachers and students provided extensive feedback to develop and refine the intervention, such as adding more Vietnam-context images and short videos on the harms of e-cigarettes and increasing interactive activities. In the pilot study, students' knowledge and risk perceptions related to e-cigarettes increased significantly after the intervention. The proportion of students reporting that they would 'definitely not' try vaping if invited increased from 86.5% to 91.4% after the prevention ($p < 0.05$). The proportion of teachers who expressed confidence in teaching students about vaping-related knowledge increased from 15.0% to 82.5% after training ($p < 0.05$). After the training, 80.0% of teachers agreed or strongly agreed that they intended to use the curriculum for future classes.

Conclusions/Implication: This school-based intervention tailored specifically for Vietnamese students is feasible and improved knowledge, risk perceptions of e-cigarettes, and reduced intentions to try vaping, indicating its potential for broader implementation in Vietnam.



Intention to Quit Smoking and Vaping Among Adolescents (10-17 years) in Nigeria and Kenya: Evidence for Policy and Program Action

T. Gelibo¹, R. Pokothoane², J. Djiofack², L. Eby², W. Awuor², H. Mir^{1,3}

¹University of Ottawa Heart Institute, Canada

²Development Gateway, United States

³Faculty of Medicine, University of Ottawa, Ottawa, Ontario, Canada

Background: Smoking and vaping among adolescents remain a major public health challenge across the globe. Understanding quit intentions and knowledge of smoking and vaping harms is important for advancing tobacco endgame strategies. This study assessed intention to quit smoking and vaping within 12 months among adolescents in Nigeria and Kenya.

Methods: Nationally representative cross-sectional household surveys were conducted among adolescents aged 10–17 years in Nigeria (n = 7,502) and Kenya (n = 6,435) between April and June 2024 using multistage stratified cluster sampling. The primary outcome was self-reported intention to quit smoking or vaping within 12 months. Weighted prevalence estimates and survey-weighted logistic regression analyses were conducted.

Results: The analytic sample included 13,937 adolescents (Nigeria: 53.8%; Kenya: 46.2%), with a mean age of 13.1 years (SD = 2.2); 51.5% were male. The prevalence of smoking or vaping was reported by 6.5% of adolescents in Kenya and 6.7% in Nigeria. Knowledge of the harmful health effects of smoking or vaping among ever users was generally low (44% in Kenya and 30% in Nigeria).

Among current users, 43.2% (95% CI: 32.5–54.6) intended to quit smoking or vaping within 12 months. Quit intention was highest among adolescents aged 10–12 years (59.3%) and lowest among those aged 16–17 years (34.3%). Male adolescents reported higher quit intention than females. In adjusted analyses, adolescents in Kenya were more likely to report intention to quit compared with those in Nigeria (aOR = 3.46; 95% CI: 1.61–7.41; p = 0.002).

Conclusions: Lower knowledge of smoking and vaping -related harms, particularly in Nigeria, suggests the need for stronger adolescent-focused tobacco education and health communication strategies. More than half of adolescent tobacco users reported no intention to quit, highlighting an important gap in cessation motivation. Strengthening school- and community-based cessation support and implementing evidence-based tobacco control policies may improve quit motivation and support progress toward the tobacco endgame in Africa.



Delivering Tobacco Cessation Support During Conflict: Lessons from Lebanon

J. LeLaurin¹, D. Bteddini¹, C. El Ashkar², R. Abl², L. El Kadi², M. Montague¹, J. Lee¹, M. Romani², T. Kabakian², D. Shelley³, R. Nakkash⁴, R. Salloum¹

¹University of Florida, United States

²American University of Beirut, Lebanon

³New York University, United States

⁴George Mason University, United States

Background: The burden of tobacco use is increasingly shifting to low- and middle-income countries (LMICs), and the availability of population-level tobacco control strategies remains limited. Lebanon has some of the highest rates of tobacco use in the world, with 35% of adults reporting current cigarette use and 39% using waterpipe. In Lebanon, the traditional challenges of implementing cessation programs in LMICs are compounded by political instability and recent wars.

Aims: We report our experience conducting a trial of population-based cessation interventions in Lebanon and identify lessons learned for implementing and sustaining tobacco control programs in conflict-affected settings.

Methods: We conducted a cluster-randomized hybrid effectiveness-implementation trial of a primary care-based cessation intervention involving telephone cessation counseling. The eruption of armed conflict during the trial necessitated modifications to study procedures and the delivery of interventions. We documented these contextual factors and resulting adaptations throughout the study through research logs, meeting minutes, and reflection sessions with study staff.

Results: Strategies to continue intervention delivery and study activities during the conflict included regular stakeholder engagement and strengthening existing communication channels, routine monitoring and feedback on trial progress, optimizing resource allocation, and adapting procedures while maintaining core components of the intervention. Specific adaptations included 1) strategic selection of sites in safer areas ahead of each study phase, 2) pausing enrollment when escalations in conflict occurred, 3) changing from in-person to remote data collection procedures, 4) allowing flexibility in the timing of counseling calls and data collection, and 5) establishing procedures to provide participants with information on resources such as mental health support and services for displaced persons.

Conclusion: Tobacco cessation interventions can be delivered in conflict-affected settings but require flexible approaches, strong local partnerships, and balancing methodological rigor with pragmatic considerations. The successful delivery and sustainment of tobacco control strategies in these settings should be reframed as adaptation to ensure continuity, while allowing flexibility with intervention protocols.



Ending the tobacco epidemic: Global progress, opportunities and challenges

16:30 - 16:45

International experience with endgame goals and endgame policy implementation

R. Edwards¹¹Flinders University, Australia

Significance

There is growing interest in tobacco endgame policies and goals. However, research investigating outcomes from jurisdictions that have adopted endgame goals or assessing the introduction of endgame measures is limited. We will present key findings from the INSPIRED study: an investigation of the experience from the first six countries (Finland, NZ, Sweden, Scotland, Ireland and Canada) to adopt government endgame goals. We will also present results from a scoping study investigating the extent and nature of endgame goal and/or endgame measures implementation up to the end of 2025.

Methods

For INSPIRED we collected data from tobacco control experts and a review of key documents in each country to assess the experience and progress with their endgame goal to the end of 2024. For the scoping study we searched databases, grey literature and key websites.

Results

The INSPIRED countries had implemented multiple MPOWER measures to achieve their endgame goals. Regulatory approaches to alternative nicotine products varied. All six countries had a strategy or action plan, but none had implemented endgame measures. New Zealand introduced endgame measures, but implementation was abandoned following a change of government. Progress towards the goals was variable. Countries' endgame plans all identified the importance of reducing inequities, however inequities in smoking prevalence largely persisted. Thirteen countries and two regions (the Pacific and the European Union) have adopted endgame goals, with four goals incorporating equity-focused targets (Aotearoa New Zealand, Australia, Scotland, and the Netherlands). None of the 13 countries had successfully introduced endgame measures. However, endgame measures (mainly tobacco free generation policies) have been implemented in several sub-national jurisdictions (e.g. Vatican City and several jurisdictions in the United States). There were examples of endgame measures being introduced but then withdrawn (Bhutan, Aotearoa New Zealand, and Balanga City).

Conclusions

Endgame goals are increasingly being adopted at national level. However, evidence is urgently needed to inform best practice and the most effective measures and strategies for achieving the tobacco endgame. Future research should include ongoing investigation of the experience from countries adopting endgame goals and robust evaluation to assess feasibility, effectiveness, equity impacts and cost-effectiveness of endgame measures.



Applying systems thinking to implement effective commercial tobacco endgame policies: A New Zealand case study

A. Waa¹

¹University of Otago, New Zealand

Significance

Systems thinking helps explain why commercial tobacco endgame policies succeed, stall, or are reversed by making visible the interacting political, commercial, social and cultural dynamics that shape the tobacco/nicotine system. Aotearoa New Zealand (Aotearoa) provides a case example for exploring tobacco systems and endgame policy. Māori (the Indigenous peoples of Aotearoa) leadership, tobacco control sector advocacy, and government commitment contributed to world leading endgame legislation passed in 2023, yet key measures were repealed in 2024 following a change of government. This presentation explores how tobacco control policy can be influenced by the legitimisation or exclusion of key stakeholders, community dynamics, and structural inequities.

Methods

Critical Systems Heuristics informed key informant interviews with Māori and non-Māori tobacco system stakeholders and reflexive thematic analysis was used to appraise interview data. A Māori-specific analysis explored how Māori systems and worldviews interacted with the wider tobacco system context, while an overall analysis of all participants examined how the broader tobacco system was understood across participants. These findings were synthesised with findings from a wider research programme they were part of to map key feedback processes, tensions, and leverage points within the tobacco system and were visually presented as causal loop diagrams.

Results

Among Māori participants, the impact of tobacco and nicotine addiction was intimately tied to the enduring impacts of European colonisation on wellbeing. Across the broader key informant analysis key tensions emerged around smoked tobacco only vs all nicotine products; biomedical vs holistic paradigms; and individual vs collective rights. The causal loop diagrams demonstrated how industry influence, political dynamics, social conditions, and policy instability interact to either enable or undermine effective endgame policy implementation.

Conclusions:

Our findings demonstrate the value of systems thinking for developing effective endgame policies. It highlighted the importance of recognising the voices and needs of those experiencing inequities, including Indigenous peoples. Navigating tensions around endgame policy can help consolidate support and reduce threats to implementation. Understanding how tobacco and nicotine policies interact within wider social and political systems may help strengthen implementation, minimise unintended consequences, and reduce vulnerability to industry influence and policy reversal.



The State of Science for Tobacco Endgame Policies: An Updated Scoping Review of Evidence Syntheses

C. Gartner^{1,2}, M. Mardani^{1,2}, J. Nip^{2,3}

¹School of Public Health, The University of Queensland, Australia

²NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame, Australia

³Otago University Wellington, Australia

Significance

Evidence syntheses support the movement of policies toward implementation and indicate growth in the evidence base. A previous review of evidence for tobacco endgame policies identified 49 relevant publications between 1998 and March 2021. We updated this previous review to explore how the tobacco endgame research field is progressing and which policies are generating most interest.

Methods

We systematically searched five databases for evidence syntheses (reviews and modelling studies) on endgame policies published since March 2021. Additional reviews were identified through snowball and expert knowledge (snowballing still in progress).

Results

We identified 47 relevant evidence syntheses (preliminary result), including an evidence brief prepared for the Conference of the Parties to the WHO Framework Convention on Tobacco Control by an Expert Group. Publications covered the following endgame policies: retailer reduction (N=26), denicotinisation of tobacco (N=20), tobacco/nicotine-free generation (N=17), ending sales (N=13), very large tax increases (N=10), product standards to reduce appeal (N=7), 'sinking lid' (N=6), reducing tobacco industry viability (N=6), replace smoked tobacco with lower risk products (N=5), performance-based regulation and 'polluter pays' (N=4). Evidence syntheses examining retailing regulations (reduction and tobacco free generation) have greatly increased since the previous review, reflecting greater policy activity on these measures. This presentation will also provide an update on the types of evidence included in these evidence syntheses.

Conclusions

The synthesised evidence base for endgame policies has approximately doubled in the last five years, indicating a rapid acceleration in research on these policies. This increase in evidence syntheses has coincided with a period of increasing interest of policymakers in endgame policies to achieve ambitious national smoking prevalence targets and implementation of the tobacco free generation policy in three countries (although one was repealed), and multiple local jurisdictions in the United States.



Tobacco industry strategies in the era of endgame policymaking: The case of the UK's Smokefree Generation policy

B.K. Matthes¹

¹University of Bath, United Kingdom

Background:

As interest in tobacco endgame policies grows, governments are increasingly considering measures to phase out commercial tobacco sales and use. Yet only a small number of countries have adopted such policies, and tobacco industry opposition remains an important barrier to progress.

Analysis:

This presentation examines contemporary tobacco industry strategies in response to endgame policymaking, using the UK's Smokefree Generation policy as a case study. Drawing on research analysing consultation and parliamentary submissions to the UK Tobacco and Vapes Bill, this presentation shows how tobacco companies expressed support for the government's smokefree 2030 ambition and sought to present themselves as responsible stakeholders committed to reducing smoking, protecting youth, and improving population health.

At the same time, tobacco companies and linked actors opposed the proposed age-based phase-out of tobacco sales using familiar arguments that the policy would be ineffective, unsupported by evidence, economically damaging, and likely to increase illicit trade. Instead, they proposed exempting certain products and raising the age of sale to 21. These actors also challenged stronger regulation of nicotine products, suggesting broader efforts to shape the meaning of the "smokefree ambition".

Monitoring of industry activity around the Bill also identified familiar strategies, including legal threats, lobbying, third-party mobilisation, and favourable evidence generation. However, compared with previous major UK tobacco control debates, activity appeared less visible in the public domain, which may reflect tensions with the industry's "transformation" narratives.

Conclusion:

The presentation argues that endgame debates concern not only whether and how tobacco control should go further, but also who gets to define the terms of a future beyond commercial tobacco. Successful endgame policymaking requires not only strong policy design but also robust safeguards against undue influence from vested interests. Full implementation of Article 5.3 of the WHO Framework Convention on Tobacco Control, alongside the capacity to anticipate predictable opposition and to monitor, expose, and, where appropriate, counter tobacco industry strategies, will be important if countries are to accelerate progress toward ending the tobacco epidemic.



E-Cigarettes

15:45 - 16:30

Estimating the Association Between Vaping, Depression and Anxiety: A Triangulation Study Using Questionnaire, Diagnoses and Linked Health Data in a Large UK Cohort

O. Bastiani¹, Z. Reed¹, M. Munafò², M. Nivard¹, J. Khouja²¹University of Bristol, United Kingdom²University of Bath, United Kingdom

Background and aims:

Evidence suggesting that vaping is associated with anxiety and depression mostly relies on questionnaire-based measurements, which may be impacted by recall or social desirability biases. In our study, we aimed to triangulate measures to cross-sectionally investigate the relationship between vaping and anxiety/depression, using questionnaires, self-reported diagnoses, and linked health data to see if these associations persist across measures with different sources of biases. This investigation was observational and not intended to investigate causality in these relationships.

Methods:

We used data from Our Future Health, a new UK cohort study (Release 13, N=1,929,752). Participants self-reported current vaping, ever having regular vaped (ever-regular vaping), anxiety and depression symptoms (General Anxiety Disorder-7 [GAD-7]; Patient Health Questionnaire [PHQ-9], respectively), and anxiety and depression diagnoses in the baseline questionnaire. Anxiety and depression diagnoses were also identified via linked records (National Health Service [NHS] Hospital Episode Statistics [HES]). We conducted three logistic regressions for each vaping exposure and anxiety/depression outcome: 1) unadjusted, 2) adjusted for age, sex, ethnicity, education, household income, 3) further adjusted for ever-regular smoking. Participants were 57.3% female and aged 18+ (M=52.5 years (SD=15.9)).

Results:

Our fully-adjusted primary analyses (N= 853,730 to 1,195,091) found consistent positive associations between ever-regular vaping and all anxiety and depression measures: GAD-7 (odds ratio [OR]= 1.53, 95% CI=1.5-1.56), self-reported anxiety diagnoses (OR=1.62, CI=1.59-1.64), HES anxiety records (OR=1.52, CI=1.49-1.55), PHQ-9 (OR=1.68, CI=1.65-1.71), self-reported depression diagnoses (OR=1.64, CI=1.62-1.67), and HES depression records (OR=1.72, CI=1.68-1.75). Current vaping was also consistently positively associated with all measures of anxiety and depression: GAD-7 (OR=1.55, CI=1.52-1.58), self-reported anxiety diagnoses (OR=1.63, CI=1.61-1.66), and HES anxiety records (OR=1.52, CI=1.48-1.55), PHQ-9 (OR=1.74, CI=1.71-1.77), self-reported depression diagnoses (OR=1.66, CI=1.64-1.69), and HES depression records (OR=1.72, CI=1.68-1.76).

Discussion:

Our results consistently show positive associations between vaping and anxiety/depression across all measures, despite differing biases possibly impacting each measure. This study is limited by its cross-sectional design, and future research should elucidate the potential causal nature of these relationships, including the direction of any causal effects.





Climate Concern, Pro-environmental Behaviours and Use of E-cigarettes in the European Union

C.X. Li¹, S. Fan¹, A. Feliu¹, A.A. Laverty¹, F.T. Filippidis²

¹Department of Primary Care and Public Health, School of Public Health, Imperial College London, London, United Kingdom

²Department of Primary Care and Public Health, School of Public Health, Imperial College London, London, UK, United Kingdom

Background:

E-cigarettes have become increasingly popular in the European Union (EU). Beyond their health risks, e-cigarettes, particularly disposable products, may harm the environment through electronic waste and emissions. However, little is known about whether environmental attitudes and behaviours are associated with e-cigarette use. This study examined the associations of climate concerns and pro-environmental behaviours with e-cigarette and disposable e-cigarette use in the EU.

Methods:

We analysed cross-sectional data from 26,353 participants in Special Eurobarometer 99.3 across 27 EU Member States (May–June 2023). Exposure variables included having reduced and separated waste for recycling, having reduced the use of disposable items, having engaged in either of these behaviours in the past six months, and perceiving climate change as a serious problem. Multivariable multilevel Poisson regression models examined associations of climate change perceptions and pro-environmental behaviours with current e-cigarette and disposable e-cigarette use after adjusting for sociodemographics.

Results:

Among those ≥ 15 years old, 3.1% were current e-cigarette users and 0.9% were current disposable e-cigarette users. Overall, 43.6% perceived climate change as a serious problem, while 70.0% reported reducing and separating waste, 53.4% reported reducing disposable item use, and 77.6% reported either behaviour in the past six months. Perceiving climate change as a serious problem was associated with a lower likelihood of current e-cigarette use (Prevalence Ratio [PR] = 0.84, 95% Confidence Interval: 0.72–0.99). Those who had engaged in at least one of the two pro-environmental behaviours were less likely to be current disposable e-cigarette users (PR = 0.72, 0.53–0.99). Although not statistically significant, estimates consistently suggested the same direction of association, including for reducing and separating waste and current disposable e-cigarette use (PR = 0.75, 0.55–1.02) and for either behaviour and current e-cigarette use (PR = 0.85, 0.72–1.02).

Conclusions:

Climate change concern and pro-environmental behaviours were associated with a lower likelihood of e-cigarette and disposable e-cigarette use in the EU. These findings suggest that policy responses to e-cigarettes, particularly disposable products, may benefit from combining environmental and health-based arguments, alongside regulatory measures aimed at reducing product use and waste.



Fine-Grained Longitudinal Patterns of Dual Use and Transitions to Smoking Abstinence: A Pilot Natural History Study of Cigarette and E-cigarette Use

R. Wiley¹, S. Sigmon¹, W. Middleton², S. O'Connor¹, M. DeSarno¹, S. Higgins¹, E. Klemperer¹

¹University of Vermont, United States

²University of Kentucky, United States

Background: Dual use of combustible cigarettes and e-cigarettes is increasingly common, but little is known about day-to-day use patterns.

Aim: This pilot natural history study aimed to explore longitudinal fine-grained use patterns and transitions to cigarette abstinence among US adults who dually use cigarettes and e-cigarettes.

Methods: Adults who smoked cigarette daily, vaped e-cigarettes daily or non-daily, and desired to quit smoking within 3 months (N=59) completed nightly smart phone surveys for 56 consecutive days. Episodes of product use were defined as consecutive days of (1) using both cigarettes and e-cigarettes, (2) exclusive smoking, (3) exclusive vaping, or (4) complete abstinence. Cigarette abstinence was defined as episodes of no smoking regardless of vaping. Markovian multi-state models were used to determine the probability of transition between episodes.

Results: Across participants, use of both products occurred on 36.9% of days and lasted for a mean of 5.9 (SE=0.42) consecutive days per episode. Exclusive smoking occurred on 23.1% of days (lasting a mean of 4.5 [SE=0.36] days per episode) and exclusive vaping occurred on 25.6% of days (lasting a mean of 7.7 [SE=0.73] days per episode). Complete abstinence occurred on 14.4% of days and lasted for a mean of 6.1 (SE=0.71) days per episode. Participants transitioned between episodes a median of 8 (IQR=5.0-16.5) times. Episodes of using both products vs. exclusive smoking were more likely to result in a transition to exclusive vaping on the very next day (HR=3.2, 95% CI=1.8-5.6). However, there was no observable difference in the likelihood of transitioning from an episode of using both products vs. exclusive smoking to an episode of cigarette abstinence overall (regardless of vaping; HR=1.0, 95% CI=0.7-1.4).

Conclusions: Daily patterns of dual use were characterized by frequent transitions between episodes of product use combinations and abstinence. Naturally occurring periods of cigarette abstinence identified in this study represent opportunities for clinical interventions to promote sustained smoking cessation among adults who dually smoke and vape. Findings also indicate that episodes of using both products on the same day commonly precede a transition to exclusive vaping, but not complete abstinence, on the very next day.

NEW OUTCOMES & LATEST EVIDENCE FROM THE COCHRANE LIVING SYSTEMATIC REVIEW OF E-CIGARETTES FOR SMOKING CESSATION

N. Lindson¹, J. Livingstone-Banks¹, A. Butler¹, H. McRobbie^{2,3}, C. Bullen⁴, P. Hajek², C. Ma⁵, A. Difeng Wu¹, R. Begh¹, A. Theodoulou^{1,6}, C. Notley⁷, N. Rigotti⁸, T. Turner⁹, T. Fanshawe¹, J. Hartmann-Boyce¹⁰

¹University of Oxford, United Kingdom

²Queen Mary University of London, United Kingdom

³University of New South Wales, Australia

⁴University of Auckland, Australia

⁵University of Michigan School of Public Health, United States

⁶Flinders University, Australia

⁷University of East Anglia, United Kingdom

⁸Massachusetts General Hospital, Harvard Medical School, United States

⁹Monash University, Australia

¹⁰University of Massachusetts Amherst, United States

Background

Nicotine e-cigarettes (EC) can help people to stop smoking. However, uncertainties remain over their comparative effectiveness, and the extent and consequence of long-term post-cessation use.

Aims

To assess the effectiveness and safety of EC for smoking cessation, as well as the long-term patterns of tobacco smoking and EC use.

Methods

We updated our Cochrane living systematic review. We searched (to 1/1/2026) for RCTs that recruited people who used combustible cigarettes (CC), and compared an EC intervention with another EC intervention/another smoking cessation intervention/no intervention, and reported smoking abstinence at ≥ 6 months and/or safety data at ≥ 1 week. For the first time, we also analysed data on combinations of long-term EC and CC use. Data synthesis used random-effects meta-analysis.

Results

We included 81 RCTs (42 high risk of bias; N=29,911). There were no substantial changes to our conclusions on the effectiveness and safety of EC for smoking cessation. Quit rates were higher with nicotine ECs versus NRT, non-nicotine ECs, and behavioural/no support, and we found no clear evidence of a difference in the likelihood of serious harms between groups.

At 6+ months follow-up, compared to those randomised to NRT, more people randomised to ECs had stopped using CCs and were using ECs (RR=4.4, 95%CI 1.27-15.28; I²=78%; 5 RCTs, N=2,776). Concurrent use of EC and CC was higher in those randomised to EC compared to NRT (RR=0.49, 95%CI 0.26-0.91; I²=31%; 5 RCTs, N=2,776). There was no clear difference in those using CC but not EC (RR=0.76, 95%CI 0.58-1.01; I²=83%; 4 RCTs, N=2,543) between arms. Five studies compared the dual use of CCs and ECs between EC and NRT arms, however, statistical heterogeneity precluded synthesis. In most cases, heterogeneity was high and results were imprecise.

Conclusions

Data continues to demonstrate the effectiveness of nicotine EC for smoking cessation, with no clear evidence of short-term harms when used to quit tobacco smoking. Compared with NRT, using ECs to stop smoking may lead to more exclusive EC use in the longer term, but there is currently no clear evidence it leads to more dual use of EC and CC.



Transcranial Direct Current Stimulation (tDCS) for Vaping Reduction in Daily E-Cigarette Users: Randomized Sham-Controlled Pilot Trial

E. Chen^{1,2}, S. Veldhuizen², S. Voci², P. Selby^{1,2}, L. Zawertailo^{1,2}

¹University of Toronto, Canada

²Centre for Addiction and Mental Health, Canada

Background. Nicotine vaping is prevalent among young adults, with many reporting difficulty reducing or quitting. Evidence-based, non-pharmacological interventions remain limited. Transcranial direct current stimulation (tDCS), a non-invasive neuromodulation technique targeting the dorsolateral prefrontal cortex (DLPFC), may reduce craving and enhance cognitive control. This pilot trial evaluates the feasibility and acceptability of repeated active versus sham remote tDCS paired with cognitive behavioral therapy (CBT) for vaping reduction.

Methods. Daily e-cigarette users interested in reducing vaping (N=40) were enrolled in a 1:1 randomized, sham-controlled pilot trial. Participants were assigned to active or sham tDCS and completed 10 treatment sessions over a 2-week period, supplemented by CBT materials; 8 treatment sessions were conducted remotely. A 20-minute stimulation (2 mA) was delivered each session over the left DLPFC. Vaping behavior was assessed using measures of use frequency, puffs consumed, and nicotine strength. Working memory and attentional bias were also examined to explore potential cognitive correlates of treatment response. Prespecified outcomes included changes in vaping frequency and intensity, craving, dependence, and feasibility indicators, including recruitment, retention, and acceptability.

Results. Forty daily e-cigarette users (52.5% male; mean age = 28.7 ± 5.9 years) were enrolled, with a median vaping duration of 5.0 years (IQR = [3.0, 9.0]). Retention was 97.5% at end of treatment (EoT) and 80.0% at 1-month follow-up. In the pooled blinded sample, vaping intensity (puffs per pick-up) decreased significantly from baseline to EoT (Median: 30.0 → 15.0; 44% reduction; $p < .001$, $r = .69$) and remained significantly reduced at 1-month follow-up (Median: 30.0 → 10.0; 55% reduction; $p < .001$, $r = .65$), with no significant change in puffs per pick-up between EoT and follow-up ($p = .508$). These findings are preliminary, as data collection is ongoing. Complete unblinded results, including condition-specific vaping outcomes and cognitive correlates of treatment response, will be presented at the conference.

Significance. This study will provide preliminary findings regarding the feasibility of a sham-controlled remote tDCS protocol for vaping reduction in daily e-cigarette users. The findings will inform the design of future trials evaluating tDCS as a scalable, non-pharmacological intervention for vaping reduction and cessation.

Patterns of Illicit Vape Seizures Across Retail Outlet Types in England: Analysis of National Trading Standards Data

A. Kartal¹, O. Blakemore¹, K. East¹, R. De Visser¹, K. Pike²

¹Brighton and Sussex Medical School, United Kingdom

²Trading Standards North West, United Kingdom

Introduction.

Illicit vaping products pose both a public health and regulatory challenge. Despite increasing enforcement activity, there is limited evidence on which retail outlets are most implicated in the distribution of illicit vaping products and whether these patterns vary geographically. This study aimed to quantify variation in illicit vape seizure events and quantities across retail outlet types in England and to assess whether such associations vary across regions.

Methods.

This study involved analysis of cross-sectional data in England from Operation Joseph (2023-2025), a National Trading Standards' programme carrying out intelligence-led seizures of illicit vapes. Primary outcomes were (1) seizure events and (2) units seized per event, restricted to events with recorded quantities. Associations between outcomes and retail outlets (convenience stores, mini-marts [e.g., hairdressers, mobile phone shops], vape shops, 'other' [e.g., storage units, wholesalers]) and region were assessed using negative binomial regressions, adjusting for region and year.

Results.

There were 22,675 seizure events and 3,424,694 seized vaping products documented between 2023 and 2025. Nationally, convenience stores accounted for 66% of seizure events, but relatively lower median quantities seized (median=29). 'Other' premises constituted relatively fewer events (8.5%), but demonstrated the highest median quantities seized (median=39). Negative binomial regression confirmed these descriptive patterns. Compared with convenience stores, seizure event rates were significantly lower in vape shops (IRR=0.207, 95% CI=0.179-0.239), mini-marts (IRR=0.138, 95% CI=0.116-0.164), and 'other' (IRR=0.136, 95% CI=0.117-0.158) premises. Per-event seizure quantities were significantly higher in vape shops (IRR=1.699, 95% CI=1.593-1.813), mini-marts (IRR=1.326, 95% CI=1.210-1.456), and particularly "other" premises (IRR=5.246, 95% CI=4.845-5.683) compared with convenience stores. There was a significant interaction between region and retail outlet type for seizure events ($\chi^2=104.73$, df=27) and per-event quantities ($\chi^2=652.69$, df=26), indicating that associations between outlet type and seizure events varied by region.

Conclusion.

Convenience stores were the most frequent site of illicit vape seizures, but larger per-event seizure quantities were more commonly associated with vape shops and 'other' premises (e.g., storage units, wholesalers), with regional variation in these patterns that require further exploration. Enforcement strategies may benefit from combining broad inspections of convenience stores with more targeted approaches in outlet types associated with larger supplies.

Competing Narratives in U.S. E-Cigarette Prevention Campaign Discourse: A Semantic Network Analysis of Twitter/X, 2018–2023

M. Feng¹, C. Carter¹, N. Wang¹, M. Borowiecki¹, S. Page¹, G. Kostygina¹, S. Emery¹

¹Social Data Collaboratory, NORC at the University of Chicago, United States

Background/aims: Digital public health campaigns operate within contested social media ecosystems where prevention messages compete with reinterpretation, commercial promotion, and organized opposition. E-cigarette prevention, shaped by rapid regulatory and cultural shifts, provides an instructive case. While prior studies document coordinated opposition and platform dynamics that produce positional disadvantage for health actors, the semantic organization of this discourse remains underexamined. We apply semantic network analysis to U.S. e-cigarette prevention discourse on Twitter/X (2018–2023) to map dominant clusters, identify central and bridging concepts, and track temporal shifts.

Methods: We analyzed 34,504 campaign-related tweets by constructing post-level word co-occurrence networks with frequency-weighted associations. Text preprocessing included punctuation standardization, tokenization, as well as the removal of URLs, hashtag symbols, English stopwords, and low-information/off-topic terms. Co-occurrence was defined as two words appearing in the same post, with pair frequencies aggregated across the corpus. Networks were built from the top 200 co-occurring pairs. We computed degree, betweenness, and eigenvector centrality to identify salient terms and applied the Louvain algorithm for community detection. Analyses were conducted for the full corpus and by year.

Results: Tweet volume rose through 2019, declined in 2020, and stabilized at lower levels from 2022 onward. Three core thematic clusters structured discourse: (1) general vaping and health risks; (2) flavored tobacco products, youth, and policy; and (3) pro-vaping advocacy and commercial promotion, including systematic co-opting of campaign hashtags such as “vapingtruth.” A youth-focused flavored tobacco theme emerged by 2019 and persisted through 2023. Policy discussions peaked in 2020–2021, referencing state-level flavor bans. Prevention-linked terms (e.g., “tobacco,” “vaping,” “flavorshookkids,” and campaign identifiers such as “therealcost”) were among the most central nodes, with “tobacco” and “vaping” bridging clusters. From 2021 onward, the network became more fragmented, with multiple disconnected clusters.

Conclusions: Despite the centrality of campaign-associated terms, this structural prominence did not prevent hashtag co-optation by commercial entities, the isolation of campaign identifiers from broader prevention discourse, or the fragmentation of the conceptual field into disconnected clusters. Public health communicators should monitor not only conventional engagement metrics but also whether campaign concepts remain meaningfully integrated within the broader discourse in which they circulate.



Evaluating the Effects of a Nicotine Reduction Policy and E-Cigarette Device Characteristics on Behavioral Economic Demand for Cigarettes in Young Adults

M. Bello¹, S. Colby², K. Arthur², J. Tidey², R. Cassidy²

¹Medical University of South Carolina, United States

²Brown University School of Public Health, United States

BACKGROUND: Implementing a nicotine reduction policy could lead to substantial reductions in smoking and prevent millions of tobacco-related premature deaths. However, in a rapidly evolving tobacco marketplace, it is unclear whether such policies may shift use toward alternative nicotine products like e-cigarettes, especially among young adults. **AIMS:** This laboratory study evaluated the main and interactive effects of cigarette nicotine content and e-cigarette device characteristics (nicotine concentration, flavors) on the reinforcing value of cigarettes. **METHODS:** Young adults (N=76; ages 18-20) who smoked cigarettes daily and reported lifetime e-cigarette use participated in a 2x2x2 mixed-factors laboratory study. Participants were randomized to smoke either very low nicotine content (VLNC; 0.4 mg/g nicotine) or normal nicotine content (NNC; 15.8 mg/g) study cigarettes in each of 6 laboratory sessions. Following session 1 where only assigned cigarettes were available, participants completed 5 sessions in which e-cigarettes varying in nicotine concentration (3 vs. 18mg/ml) and flavor (tobacco vs. non-tobacco) were concurrently available. At each session, participants completed a Cigarette Purchase Task (CPT) assessing demand for study cigarettes across escalating prices. Participants were instructed to respond assuming they have access to both their study cigarettes and e-cigarette device that they just sampled. **RESULTS:** Multilevel linear mixed effects models demonstrated that young adults who were assigned to smoke NNC cigarettes reported greater cigarette consumption when cigarettes were free (intensity) compared to young adults who smoked VLNC cigarettes ($p=.013$). Demand (α) was more elastic among young adults assigned to smoke VLNC cigarettes relative to young adults who smoked NNC cigarettes ($p=.011$), indicating reduced reinforcing value. These effects were consistent across e-cigarette conditions. No significant main effects or interactive effects of e-cigarette device characteristics were found. **CONCLUSIONS:** Reducing nicotine content in cigarettes decreased the reinforcing value of cigarettes among young adults who smoke. Notably, these effects were observed regardless of concurrently available e-cigarette device characteristics, suggesting that a reduced nicotine standard would result in reduced addiction potential even in the context of alternative products. Findings support the potential effectiveness of a nicotine reduction policy in reducing the rewarding value of smoking among young adults who have access to alternative nicotine products.

ENHALE: integrated clinical and non-clinical assessment of a novel electronic nicotine replacement therapy

D. Lawson^{1,2}, B. Willcock¹, T. Jackson¹, S. Salim-Sartoni³

¹Ventus Medical, United Kingdom

²Cardiff University, United Kingdom

³Salim Sartoni Associates, United Kingdom

Background

Nicotine products intended for smoking cessation should provide rapid craving relief while minimising toxicological burden and limiting features associated with uncontrolled use. ENHALE is a cartridge-based electronic nicotine replacement therapy delivering 0.5 mg nicotine per dose in a discrete, single-use format.

Aims

To assess the pharmacokinetic (PK), pharmacodynamic (PD), and non-clinical aerosol profile of ENHALE relative to licensed nicotine replacement therapies, and to characterise its toxicological profile in the context of comparator nicotine products.

Methods

In a randomised, open-label, three-period crossover study, 24 adult smokers received ENHALE, Nicorette QuickMist, and Nicorette Inhalator under repeated dosing conditions. PK endpoints included T_{max}, C_{max}, and AUC following single and repeated administration. PD effects were assessed using urge-to-smoke visual analogue scale (VAS), including early post-dose timepoints and repeated-dose responses. Separately, ENHALE aerosol was analysed for priority harmful and potentially harmful constituents (HPHCs) using validated analytical methods. Toxicological findings were interpreted in the context of comparative exposure and risk.

Results

ENHALE demonstrated rapid nicotine uptake, with a shorter median T_{max} (approximately 2–3 min) than QuickMist and Inhalator (approximately 10–15 min). Systemic nicotine exposure per dose was lower than QuickMist and higher than Inhalator. ENHALE produced the greatest early reduction in urge-to-smoke scores, including within 10 minutes of administration, and maintained consistent craving suppression across repeated dosing. Trends in cumulative craving reduction over the dosing period favoured ENHALE, although variability was observed. No measured HPHCs were detected in ENHALE aerosol.

Conclusions

ENHALE combined rapid nicotine delivery with early and sustained craving relief and a minimal detectable aerosol toxicant profile. Its fixed-dose, cartridge-based format provides controlled nicotine administration and may limit continuous ad libitum use. These findings support ENHALE as a novel electronic nicotine replacement therapy with clinically relevant pharmacodynamic effects and a favourable non-clinical profile.

Inequalities

15:45 - 16:30

Income-Related Inequalities in Smoking and the Role of Tobacco Control Policies Across 31 European Countries

Z. Lone¹, U. Mons¹¹German Cancer Research Center (DKFZ), Germany

Background: Smoking remains the leading preventable cause of morbidity and mortality in Europe. Although overall smoking prevalence is declining, socioeconomic inequalities in smoking are widening. Increasing evidence of inequalities in smoking has been reported in Europe, mostly focusing on education. However, few studies have assessed income-related inequalities, and their association with existing tobacco control policies is yet to be investigated. This study aims to quantify the absolute and relative income-related inequalities in smoking and examine their association with tobacco control policies across Europe.

Methods: We used country-level aggregate data from European Health Information Survey to estimate absolute and relative income-related inequalities in smoking across 31 European countries, using regression-based, rank-dependent measures: the slope index of inequality (SII) and the relative index of inequality (RII). Country scores for overall tobacco control policy and individual policy domains were extracted from the Tobacco Control Scale, and their associations with smoking prevalence and inequalities were examined.

Results: Summary inequality estimates indicated that lowest-income groups consistently had higher smoking prevalence (SII= -5.89, RII= 0.72), with inequalities larger among males (SII= -10.9, RII= 0.61) compared to females (SII= -3.51, RII= 0.77). Country-level comparisons showed the highest inequalities in Netherlands, Hungary, and Bulgaria, and the lowest in Finland, Slovakia and Portugal. In most countries, lowest-income groups smoked more than highest-income groups, except in Bulgaria, Romania, and Turkey. Overall tobacco control policy scores were negatively associated with smoking prevalence ($rs = -.45$, $p < .05$). Individual policy domains generally showed no significant association, except for the “public bans” domain ($rs = -.36$, $p < .05$). Neither SII nor RII were significantly associated with overall policy scores. However, the “treatment” domain showed a significant positive association with RII ($rs = .37$, $p < .05$).

Conclusion: Our findings indicate that income-related smoking inequalities persist across Europe, disproportionately affecting lower-income groups, with greater disparities among males and notable variation between countries. While stronger tobacco control policies are associated with lower smoking prevalence, they do not appear to be associated with income-related inequalities in smoking.



Shifts in disadvantage: changes in predictors of cessation among people in formal treatment

S. Veldhuizen^{1,2}, L. Zawertailo^{1,2}, N. Minian^{1,2}, K. Iturralde¹, P. Selby^{1,2}

¹Centre for Addiction and Mental Health, Canada

²University of Toronto, Canada

Background

A number of variables have long been known to predict outcomes of smoking cessation treatment. Some of these associations may, however, be context-dependent, and may change over time due evolving patterns of nicotine use, other contextual changes, various cohort effects, or changes in the population of people who smoke.

Aims

This study aimed to measure and understand shifts over time in the associations between treatment outcome and baseline variables.

Methods

We used 8 years of data (2016 to 2024) on 107,204 unique enrollees in a large nicotine replacement therapy-based smoking cessation program in Ontario, Canada. We began with a set of 24 predictors, selected a priori on the basis of previous results. For each variable, we fit a generalized additive model that included its interaction with time. We used the Holm method for multiplicity correction and entered interactions that remained significant into a backwards stepwise selection to arrive at a final model.

Results

We found large increases in cessation probability over time for younger people (at age 26, absolute adjusted change from study beginning to end = 9.7%, 95% CI = 5.0%, 14.4%) and those who used e-cigarettes daily (absolute adjusted change = 10.8%, 95% CI = 1.7%, 19.8%), as well as a compression of differences across levels of income.

Conclusion

Findings show that, though the effects of many well-known predictors of cessation have remained approximately consistent, those of age, e-cigarette use, and income have changed markedly. Outcomes have improved for youth and people who use e-cigarettes daily. These shifts may be related to changes in the prevalence, social acceptability, and reasons for use of different nicotine products.

Results are relevant to ongoing discussions of the complex relationship between tobacco smoking and use of other nicotine products. Clinically, they show that the longstanding advantage of older adults has disappeared and that dual use of e-cigarettes requires careful consideration, particularly as it may represent an attempt to transition away from tobacco use.

A scoping review of tobacco use and its impact among culturally and linguistically diverse (CALD) populations in Australia

K. Ko¹, H. Kang^{2,3}, R.B. Khatri², A. Cho^{2,3}, R. Kumar⁴, Y.Y. Lee^{3,5}, T. Sun^{3,5}, C.C. Lim^{3,5}, C. Gartner^{2,3}, H. Akbar²

¹University of Auckland, New Zealand

²School of Public Health, Faculty of Health, Medicine and Behavioral Science, The University of Queensland, Brisbane, Australia

³NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame, School of Public Health, The University of Queensland, Brisbane, Australia

⁴Faculty of Health, Southern Cross University, Australia

⁵National Centre for Youth Substance Use Research, School of Psychology, The University of Queensland, Brisbane, Australia

Background: Despite substantial reductions in smoking across Australia over the past 50 years, tobacco use remains a significant public health problem. Data from National Drug Strategy Household 2022-2023 suggest a lower smoking prevalence among Australia's culturally and linguistically diverse (CALD) population compared to general population. However, aggregating them into a single category obscures important differences in their tobacco use patterns and overlooks their unique socio-cultural challenges.

Aims: To systematically review tobacco research on culturally and linguistically diverse (CALD) populations in Australia by examining prevalence, patterns and forms of use, associated factors and cessation or prevention interventions, and to identify gaps that can inform future research on culturally responsive tobacco control strategies.

Methods: We searched literature published since 2000 across nine databases without restrictions on study design. Included studies involved participants born outside Australia from non-English speaking backgrounds who were residing in Australia temporarily or permanently, including migrant workers, international students, and first- and second-generation Australians. Studies focused on short-term visitors were excluded.

Results: Of 5,574 articles screened, 47 studies met the inclusion criteria. Smoking prevalence varied markedly across CALD populations, typically influenced by birthplace, and gender. Compared to non-CALD counterparts, higher smoking rates were observed among men from Lebanon and Syria, Vietnam, China, Greece, and Italy and men and women from the Pacific Island Countries and Territories. Factors influencing tobacco use were categorized into five main domains: demographic factors, cultural and social factors including gender norms, accessibility to tobacco products, health literacy and awareness and migratory trajectory. Cultural and familial practices shaped the use of alternative tobacco products, such as waterpipe smoking among Arabic-speaking communities, smokeless tobacco use among South Asian communities, and betel chewing among Burmese communities. Only two studies that evaluated tobacco cessation interventions, both targeting Arabic-speaking communities were identified, with one social marketing campaign demonstrating significant post-intervention effectiveness.

Conclusion: This review highlights a critical gap in evidence on tobacco use and cessation interventions for CALD populations in Australia, highlighting an urgent need for more inclusive, culturally responsive research and public health strategies that address the unique social, cultural and structural factors of tobacco use within these communities.



Smoking and social inequalities in France: trends from 2000 to 2024

A. Pasquereau¹, R. Guignard¹, R. Andler¹, V. Nguyen-Thanh¹

¹Santé publique France, the national public health agency, France

Background: Since the early 2000s, smoking prevalence has declined overall in France, but social inequalities remain very marked. This study aims to describe the evolution of social inequalities in smoking using data from 2000 to 2024, in light of tobacco control policies implemented.

Methods:

Data come from Santé Publique France's Health Barometers, cross-sectional surveys conducted by telephone between 2000 and 2021 on representative samples of the French population aged 18–75 using random digit dialing (between 9,074 and 28,224 people were surveyed depending on the edition). For the 2024 edition, the methodology was updated: respondents were randomly selected from an administrative database, and the survey used a multimodal approach. 34,940 people responded. Evolutions in smoking prevalence are considered according to socioeconomic status.

Results:

In 2024, 25% of people aged 18 to 75 report smoking tobacco, including 18% daily smokers. The downward trend observed since 2016, which was interrupted in 2020–2021, has resumed.

In 2024, the proportion of daily smokers is significantly higher among the most disadvantaged populations. It is:

- 1.6 times higher among those without diploma or with a diploma below the high school level than among those with a diploma above the high school level (23% vs. 13%)
- 3.0 times higher among those who perceive their financial situation as difficult than among those who report being financially comfortable (32% vs. 10%)
- 1.5 times higher among the unemployed compared to workers (31% vs. 19%).

The gaps between the most advantaged and the most disadvantaged increased between 2000 and 2016.

Between 2016 and 2024, the prevalence of smoking decreased overall and particularly among less advantaged socioeconomic groups, despite a period of increasing disparities between 2019 and 2021.

Conclusion:

The downward trend in smoking rates observed in France since 2016—linked to the implementation of national tobacco control plans and interrupted during the COVID-19 pandemic—is resuming. Although social inequalities regarding smoking remain significant, a decline has also been observed among less advantaged socioeconomic groups. The next edition of the Barometer in 2026 will allow for more post-Covid perspective and trends using a similar survey method.

Socioeconomic Inequalities in Secondhand Smoke Exposure at Home Among Women of Reproductive Age in 23 Countries: Evidence from Global Adult Tobacco Survey, 2015–2023

J. Shi¹

¹CDC Foundation, United States

Background: Exposure to secondhand smoke (SHS) is a leading health hazard in women of reproductive age (WRA), increasing risks of adverse maternal and child health outcomes. In many low- and middle-income countries (LMICs), the home is a predominant setting for SHS exposure, yet comparable cross-country evidence on socioeconomic disparities among WRA is limited.

Aims: To examine socioeconomic inequalities in SHS exposure at home among WRA in 23 LMICs.

Methods: Data were analyzed from 23 LMICs that completed the Global Adult Tobacco Survey (GATS) during 2015–2023. WRA were defined as women aged 15–49 years. The WRA analytic sample size ranges from 2,032 in Romania to 55,621 in India. Socioeconomic inequalities were assessed using the Slope Index of Inequality (SII) and the Relative Index of Inequality (RII), which are the absolute and relative measures of inequality, respectively. Country-specific SII and RII by wealth index and education levels were estimated using modified Poisson regression models adjusting for age. A Relative to an Identified Distribution (RIDIT) score was constructed for each socioeconomic variable.

Results: SHS exposure at home among WRA ranged from 4.1% in Costa Rica to 61.0% in Viet Nam. In 18 of 23 countries (78.3%), reported SHS exposure at home among WRA decreased with increasing wealth (RII range: 1.20 [95% CI 1.02–1.44] in China to 5.19 [95% CI 5.16–5.22] in Uganda; SII range: 0.05 [95% CI 0.02–0.07] in Ethiopia to 0.33 [95% CI 0.29–0.37] in Indonesia). In 18 of 23 countries (78.3%), SHS exposure at home among WRA reduced with increasing education (RII range: 1.23 [95% CI 1.21–1.24] in Turkey to 3.66 [95% CI 3.653.67] in China; SII range: 0.03 [95% CI 0.02–0.05] in Costa Rica to 0.39 [95% CI 0.29–0.49] in China).

Conclusions: Across LMICs studied, marked socioeconomic inequalities in SHS exposure at home were observed among WRA. In most countries, SHS exposure at home is higher among WRA with lower levels of wealth and education. Strengthening tobacco control efforts that target socioeconomically disadvantaged populations and promote smoke-free homes are essential to reduce these disparities and protect women and future generations from preventable harm.

Two decades of increasing disparities: decomposition of socioeconomic inequalities in smoking status in Belgium.

M. Vankelegom^{1,2}

¹VUB, Belgium

²Sciensano, Belgium

Background: Despite advances in tobacco control, smoking remains a leading public health challenge in Belgium. According to 2021 estimates from Sciensano, tobacco use accounted for 10.5% of years of life lost, with a disproportionate impact on socially disadvantaged groups.

Aim: This study assessed long-term trends in socioeconomic inequalities in smoking in Belgium between 1997 and 2018 and assessed the contribution of key socioeconomic determinants.

Method: Using data from six waves of the Belgian Health Interview Survey (1997–2018), a repeated cross-sectional survey of individuals aged 15 and older conducted every three to four years, this study assessed socioeconomic inequality in smoking with the Erreygers-corrected concentration index (C_{lc}) and decomposed the index to estimate the contribution of specific socioeconomic determinants to the observed inequalities.

Results: Although overall prevalence of smoking declined, socioeconomic inequality in smoking increased over the years, with the C_{lc} rising from -0.036 (95% CI: -0.058; -0.013) in 1997 to -0.141 (95% CI: -0.182; -0.100) in 2018, indicating an increasing concentration of smoking among lower socioeconomic groups. This increase is not monotonic; in 2001, the index was not statistically distinguishable from zero (-0.012; 95% CI, -0.034 to 0.011). Household income remained the main contributor to inequality, with lower-income groups having higher smoking rates. Employment status acted as a consistent offsetting factor, with being employed associated with lower smoking prevalence.

Conclusion: Despite overall declines in smoking, socioeconomic inequalities in smoking have widened over the last two decades. These findings point to the need for policy targeting lower-income households and the unemployed.

Socioeconomic Disparities in Smoking Cessation Success and E-Cigarette Use During Quit Attempts: A Population-Based Cross-Sectional Study in France

M.N. Al Zayat¹, V. Nguyen-Thanh², A. Pasquereau², R. Guignard², M. Melchior³, G. Ibanez³, F. El-Khoury³

¹Sorbonne University / INSERM, France

²Santé publique France, France

³INSERM/ Sorbonne, France

Background: Despite the global decline in smoking, tobacco use remains disproportionately concentrated among individuals with low socioeconomic status (SES). Although electronic cigarettes (e-cigarettes) are widely used in quit attempts, it is unclear whether their use during quitting is socially patterned or similarly associated with successful smoking cessation (SSC) across SES groups.

Aim: This study examines the association between e-cigarette use during quit attempts and SSC over five years, and whether these patterns differ by SES.

Methods: We analyzed data from the 2021 edition of the nationally representative French Health Barometer survey. The primary outcome classified reported quit attempts during 2016–2021 as successful (former smoker) or unsuccessful (current smoker). SES was constructed using Multiple Correspondence Analysis combining education, income, and employment status. Logistic regression models estimated the likelihood of SSC, adjusting for sociodemographic, behavioral, and health-related factors.

Results: Among 4,114 former smokers or quit attempters over five years, 36.4% reported SSC. E-cigarette use during quit attempts (14.7%) was associated with SSC (adjusted odds ratio = 2.67). Smoking cessation showed a clear socioeconomic gradient, with higher success among members of intermediate and high-SES groups. Older age, female sex, and living with a partner were also positively associated with SSC. No statistically significant socioeconomic differences in e-cigarette use overall or during quit attempts were observed.

Conclusion: E-cigarette use during quit attempts was associated with higher odds of SSC, but not with socioeconomic inequalities. These findings suggest that policies must address social determinants while providing intensified, proportionate cessation support for disadvantaged smokers.



Priority Populations

15:45 - 16:30

A Preference-Based Smoking Cessation Intervention for French Smokers Experiencing Socioeconomic Disadvantage, Combining Electronic Cigarettes and Nicotine Replacement Therapy: a Pragmatic, Multicenter, Randomized Controlled Trial

M.N. Al Zayat¹, M. Melchior¹, G. Ibanez¹, F. El Khoury¹¹Sorbonne University / INSERM, France

Background: Smoking remains disproportionately prevalent among individuals experiencing socioeconomic disadvantage, yet few cessation interventions are tailored to their needs or preferences.

Aim: This trial evaluated a pragmatic preference-based smoking cessation intervention providing free nicotine replacement therapy (NRT) and/or electronic cigarettes (e-cigarettes), through healthcare professionals.

Methods: We conducted a multicenter, single-blind, parallel-arm, pragmatic randomized controlled trial among adult daily smokers in France who met predefined indicators of socioeconomic disadvantage. Participants were randomized to either free provision of preferred cessation tools plus routine counseling (intervention) or routine counseling with access to standard reimbursed cessation treatments (control). The primary outcome was self-reported smoking abstinence at 6-months and beyond; secondary outcomes included $\geq 50\%$ reduction in daily cigarette use, quit attempts, and use of cessation aids. We estimated absolute risks (ARs) using log-binomial regression. This trial was registered on ClinicalTrials.gov (Identifier: NCT04654585).

Results: A total of 170 participants were enrolled, and 102 completed follow-up at 6-months and beyond. Abstinence was reported by 31% of participants in the intervention group and 24% in the control group (AR 1.18; 95% CI: 0.62 to 2.21). Smoking reduction occurred in both groups. E-cigarette use was substantially higher in the intervention group (49% vs. 23%), whereas NRT use was similar. No statistically significant between-group differences were observed in cessation or reduction outcomes.

Conclusion: While providing free cessation tools based on patient preference did not improve cessation rates in a context where NRT is already widely reimbursed, the findings highlight the importance of ongoing personalized support and accessibility of diverse cessation options.



Investigating Smoking Cessation Interventions in Routine and Manual Workplaces: A Restricted Review.

A. Talbot¹, N. Lindson¹, J. Livingstone-Banks¹, J. Taylor¹, A. Difeng Wu¹

¹University of Oxford, United Kingdom

Background

While cigarette smoking has steadily declined globally, rates remain disproportionately high among certain groups, including people in routine and manual occupations (e.g., construction, manufacturing). Inflexible working hours and a pervasive workplace smoking culture can hinder access to cessation interventions, compounding health inequalities. Interventions delivered within the workplace are a potential solution; however, effectiveness and acceptability should be established.

Aims

To rapidly assess the acceptability and effectiveness of routine and manual workplace smoking cessation interventions in achieving smoking reduction/cessation.

Methods

We searched three databases for any quantitative and qualitative studies published between January 1st 2007 to the search date 11th December 2025. Eligibility criteria included: (1) employees (16+) in routine or manual occupations who smoke cigarettes, employers, and service providers; (2) any intervention that involved support for employees to stop smoking; and (3) smoking cessation/reduction rates, employee uptake, or intervention acceptability outcomes.

One reviewer screened, extracted, and quality-assessed studies using the Cochrane Risk-of Bias-1 or the CASP tool. A second reviewer checked 20%. We will synthesise qualitative studies thematically and quantitative studies narratively (or meta-analyse, where possible).

Results

Thirty-five studies were included (n=22,594 employees, 34 employers, 9 service providers. These included 25 quantitative studies (of which 14 were trials), five qualitative studies, and five mixed-methods studies. We judged 20 quantitative studies and all mixed-methods studies to be at high risk of bias. Of the qualitative studies and the qualitative components of the mixed-methods studies, we judged there to be one high-, four medium-, and three low-quality studies. Reported outcomes included smoking cessation (n= 23), smoking reduction (n= 6), employee uptake (n= 8), and intervention acceptability (n= 15).

Early synthesis shows that most authors' interpretations were that workplace smoking cessation interventions are effective and acceptable to employees and employers. Early synthesis also highlights barriers to uptake like insufficient advertisement, inaccessibility for those working night shifts, and facilitators like employer endorsement, zero-cost access, and integrating the intervention into existing company smoking policies.

Conclusion

Studies of routine and manual worksite smoking cessation interventions report that they are effective and acceptable to employees and employers; however, most of this evidence is low quality.

National Smoke-free Pregnancy Incentives Scheme (NSPIS): Quantitative evaluation using secondary data analysis

S. Tipping^{1,2}, M. Ussher^{3,4}, L. Brose^{2,5}

¹University of Glasgow, United Kingdom

²NIHR Policy Research Unit in Addictions, United Kingdom

³University of Stirling, United Kingdom

⁴City St George's, University of London, United Kingdom

⁵King's College London, United Kingdom

Background/Aims: There is strong and growing evidence that financial incentives are highly effective in supporting smoking cessation during pregnancy. In response to this, the Government in England introduced the National Smoke-free Pregnancy Incentives Scheme (NSPIS), offering structured support and vouchers to pregnant individuals who quit. An evaluation is being conducted using NSPIS monitoring data, alongside data from NHS Digital Maternity Services Dataset, to explore trends in smoking and birth outcomes, participation rates, quit success, and demographic equity.

Methods: Secondary analysis of data from the monitoring platform (9,731 pregnant mothers who set a quit date) and routinely collected data on NHS-funded maternity services in England. Data were analysed using descriptive statistics, regression analysis, and Kaplan-Meier survival curves.

Results: Analyses are ongoing, to be completed July 2026. Full results will be presented. Emerging findings indicate scheme participants were more likely to stop smoking if they were under 25 years (OR:1.63, 95%CI:1.16-2.30) or lived in a smoke-free household (OR:1.54, 95%CI:1.26-1.89), and less likely if they had a CO reading over 4 ppm at enrolment (OR:0.22, 95%CI:0.09-0.55), were not working (OR:0.41, 95%CI:0.28-0.60), or joined the scheme during later stages of pregnancy (22+ weeks gestation, OR:0.62, 95%CI:0.46-0.83).

Women who returned to smoking were given a chance to re-join the scheme and set a second quit date. These mothers are a sub-set of the mothers who relapsed, and have similar characteristics, being older, less likely to live in a smoke-free household, more likely to be heavier smokers at enrolment, and less likely to be in work. Cessation rates were lower for re-joiners compared to those who stayed in the scheme.

Conclusions: The findings reinforce the importance of household factors in smoking cessation. The rate of smoke free births amongst those who dropped out and rejoined, whilst lower than the corresponding rates for those who did not drop out, represent success within a group of mothers who were harder to engage. This highlights the importance of giving second chances to these mothers in the scheme.



Does Nicotine Replacement Therapy reduce smoking when pregnant people cannot quit abruptly?

J. Emery¹, T. Coleman², F. Naughton¹, S. Lewis², Y. Huang², R. Smith³, S. Orton²

¹University of East Anglia, United Kingdom

²University of Nottingham, United Kingdom

³University of York, United Kingdom

Background: Despite high motivation, many people cannot quit smoking abruptly when pregnant. Previously, for pregnant women who continued to smoke, we found an inverse relationship between daily nicotine replacement therapy (NRT) intake and number of cigarettes per day (CPD). We aimed to investigate this in a larger sample.

Methods: Analysis of observational ecological momentary assessment (EMA) data from the ongoing SNAP2 smoking cessation trial. Participants were pregnant daily smokers (N=410) willing to set a quit date and try quitting with NRT. Daily EMAs capturing CPD and NRT use were collected via the NicUse app for 28 days post-quit date. A mixed effects analysis explored within- and between-person associations between daily NRT intake and CPD, adjusted for time and baseline heaviness of smoking (HSI).

Results: Most participants (79%; 322/410) smoked after quit dates (~3 CPD). Of these, 88% (283/322) also used NRT (mean daily intake 27mg). We found that, within-persons, individuals' CPD was lower on days when they used more NRT; for light smokers, each 10mg NRT = -0.21 CPD (95% CI -0.31, -0.11), $p < .001$. Baseline HSI interacted with this association (-0.3 [-0.45, -0.15], $p < .001$); for "moderate-heavy" smokers the estimate was -0.51 CPD. Between-persons, we did not find those who used more NRT than average smoked less than average.

Discussion: Most participants smoked and used NRT; within these individuals, daily NRT intake was inversely related to daily CPD, suggesting NRT was substituted for cigarettes. For pregnant women unable to quit smoking abruptly, using NRT could reduce prenatal exposure to tobacco smoke.

Spanish midwives' knowledge and use of the 5A model for smoking cessation during pregnancy

C.M. Posse¹, M.C. Míguez¹

¹University of Santiago de Compostela, Spain

Background: Smoking is the leading modifiable risk factor associated with adverse perinatal outcomes. However, in Spain, approximately 50% of women continue to smoke during pregnancy. It is therefore essential that professionals in contact with pregnant women, such as midwives, support them in smoking cessation during this period. The 5As model is one of the interventions recommended in clinical practice for this purpose.

Aims: This study aimed to determine whether midwives in Spain are familiar with and apply the 5As model, and to identify the characteristics associated with such knowledge and use.

Methods: An anonymous questionnaire was administered to midwives in Galicia (Spain) between December 2025 and May 2026.

Results: A total of 105 midwives completed the questionnaire, of whom 97.1% were women. The mean age was 40.47 years (SD = 9.14). Of the respondents, 95.2% reported being non-smokers and 77.1% stated they had received training in perinatal smoking cessation. When assessing perceived capacity to help pregnant women quit smoking (0–10), a mean score of 3.95 (SD = 2.19) was obtained. Overall, 62.9% of midwives reported being familiar with the 5As model, although only 16.2% applied it. Midwives familiar with the model were more likely to be under 35 years of age (45.5% vs 10.3%, $p < .001$), to have fewer than 10 years of experience (50% vs 12.8%, $p < .001$), to be non-smokers (100% vs 87.2%, $p = .006$), and to report having received training in this area (86.4% vs 61.5%, $p = .003$). Midwives who applied the model reported a significantly higher perceived capacity to help women quit smoking than those who did not (5.71 vs 3.61, $p < .001$).

Conclusion: A large proportion of Spanish midwives are familiar with the 5As model, but few put it into practice. Spanish midwives need to be educated and trained in this model, with the aim of increasing the likelihood that they will support pregnant women in smoking cessation.

Validating motivational interviewing fidelity with the OnePass measure in a pregnancy smoking-cessation RCT

A. Onișor^{1,2}, M. Dascăl^{1,2}, A. Morar^{1,2}, O. Blaga^{1,2}, C. Meghea^{1,3}, K. Foley^{1,4}, K. Resnicow⁵

¹Center for Health Policy and Public Health, College of Political, Administrative and Communication Sciences, Babeș-Bolyai University, Cluj-Napoca, Romania

²Department of Public Health, College of Political, Administrative and Communication Sciences, Babeș-Bolyai University, Cluj-Napoca, Romania

³Department of Obstetrics, Gynecology and Reproductive Biology, College of Human Medicine, Michigan State University, Michigan, Romania

⁴Department of Implementation Science, Division of Public Health Sciences, Wake Forest University School of Medicine, North Carolina, Romania

⁵Division of Epidemiology & Community Health, School of Public Health, University of Minnesota, Romania

Background: Motivational Interviewing (MI) trials often under-report treatment fidelity, limiting inferences about how interventions were delivered and why they worked. OnePass is a brief, global MI fidelity coding system, but evidence on its psychometric performance within RCTs and its association with participant outcomes remains limited.

Aim: To evaluate OnePass's psychometric properties and association with participant outcomes in a pregnancy smoking-cessation RCT.

Methods: Smoke-Free Together 2.0 is a Romanian RCT pairing MI counseling with a smoking-cessation mobile app for pregnant smokers. A random sample of 25% (N=46) audio-recorded counseling sessions delivered by five counselors was transcribed and rated using OnePass by two trained coders, with 23.9% double-coded for inter-coder reliability. Analyses included descriptive statistics, Spearman correlations between composite and item-level scores, simple linear regressions, and internal consistency checks. Linear mixed-effects models estimated counselor variability and motivation trajectory, and exploratory analysis examined the association between OnePass Total score and quit status.

Results: Counselors showed high MI competence (Total Score= 5.98, SD=0.77, range 4.00-6.91 on a 1-7 scale) and high inter-rater reliability (ICC = 0.935). The subskill items accounted for 93.4% of variance in Total Score, but only 19.3% of variance in Performance Metric Score, suggesting that Performance Metric captures aspects of MI delivery beyond what subskills alone capture. The strongest contributors to overall competence were relational and technical skills (MI spirit, complex reflections, evoking change talk, and values or strengths work). Competence varied significantly across counselors (Kruskal-Wallis, $H(4) = 16.02$, $p = .003$). Exploratory analyses found no significant associations between OnePass scores and participant motivation or quit status, likely reflecting the small follow-up sample (N=35; 10 quit) and a narrow range of counselor competence (IQR 5.54–6.57). Motivation followed an inverted U-shape, peaking during counseling and declining below baseline at follow-up.

Conclusion: OnePass yielded reliable fidelity scores in this trial, the first application to pregnancy smoking cessation and replication outside English-speaking settings. Relational and technical skills were the strongest contributors to competence. The lack of fidelity-outcome associations should be read as an underpowered test, not evidence fidelity is unrelated to outcomes. Findings support OnePass as a practical fidelity-monitoring tool for resource-limited RCTs.



Co-designing a chatbot-led comprehensive digital stop smoking service for pregnancy

L. McDaid¹, E. Shackleton¹, P. Belderson¹, J. Emery¹, A. Dickinson², Z. Khadjesari¹, M. Ussher^{3,4}, E. Bailey⁵, R. Sanders¹, C. Glover⁶, F. Naughton¹

¹University of East Anglia, United Kingdom

²University of Nottingham, United Kingdom

³University of Stirling, United Kingdom

⁴City St George's, University of London, United Kingdom

⁵Birmingham City University, United Kingdom

⁶Public Involvement Contributor, United Kingdom

Background: Digital interventions show promise for smoking cessation in pregnancy. However, few pregnancy-specific digital cessation interventions integrate technological innovations, such as artificial intelligence (AI), to enhance their capability. We undertook a NIHR-funded co-design study to guide the adaption of the 'Smoke Free' app to create a novel digital stop smoking service for pregnancy, with an AI chatbot quit advisor to deliver UK guideline support.

Methods: Participants were people with recent prenatal smoking experience (n=16), partners of those with prenatal smoking experience (n=2), and smoking in pregnancy experts (n=15). They participated in two stages of co-design workshops or interviews, followed by consensus surveys. Stage one focused on the app's chatbot plus additional features, while the second explored design, user experience, and content. Generated themes were reviewed for feasibility with the app developer and presented back to co-design participants in an iterative dialogue.

Findings: Stage 1 feature-related themes included: a preference for simplicity, having a human-like chatbot, chatbot-led conversations, vape provision alongside nicotine replacement therapy, a baby-size tracker for engagement, and a not-ready-to-quit pathway. Stage 2 themes highlighted: a need for clearer in-app navigation, pregnancy-focused visual cues, explicit communication of the chatbot's dual role in supporting both structured sessions and general conversational use, and practical, multi-format cessation content delivered in a professional tone, with the chatbot avoiding "text-speak". Challenges arose balancing co-design priorities, the capabilities of the existing app, and resource constraints, leading to a process of collaborative negotiation.

Discussion: The findings informed a minimum viable product and chatbot prototype. The next step is optimising the app, including chatbot conversations, through iterative user testing. This study demonstrates how co-design can enhance the development of AI chatbots and highlights key considerations.



Improving Maternal Smoking Outcomes Through a High Impact Approach in the North East and North Cumbria, England

R. McIlvenna^{1,2}, J. Feeney², R. Sharrock³, R. Mitchell¹, R. Scott¹

¹North East North Cumbria ICS, United Kingdom

²Fresh & Balance (hosted by County Durham & Darlington NHS FT), United Kingdom

³Gateshead NHS Foundation Trust, United Kingdom

Background:

Historically high maternal smoking rates in North East and North Cumbria (NENC) have contributed to poorer maternal outcomes, as smoking is the most modifiable risk factor for adverse pregnancy outcomes. Women who smoke during pregnancy are 2.6 times more likely to experience premature birth, alongside lower birth weight and higher stillbirth rates. In 2010, the North East had a Smoking at time of Delivery (SATOD) rate of 19.8%, compared with 14% across England.

Aim:

To utilise high impact approach to reduce high maternal smoking rates

Method/ Intervention:

A comprehensive programme of work to improve the reach and effectiveness of maternity service led provision delivery was put in place across NENC, complementing the national healthcare commitments and building on over two decades of work to address maternal smoking as part of a whole systems approach to tobacco control.

A robust tobacco dependency in pregnancy pathway has been embedded across all 8 hospital maternity services including systematic screening of all pregnant people, opt out referral to maternity tobacco dependency services. This coupled with changing the narrative of smoking formerly seen as a lifestyle choice now a chronic relapsing long term condition requiring treatment.

This package of support included:

- o Free access to Nicotine Replacement Therapy (NRT)
- o Evidence based behavioural support throughout pregnancy and post-partum
- o Free access to nicotine vapes
- o NENC NRT electronic voucher scheme
- o NENC pregnancy financial incentives scheme
- o Comprehensive training programme

Results

This high impact approach to reduce maternal smoking rates in the North East & North Cumbria led to over 40% drop from 13.1% in 2020 to 7.8% (2024) and latest data available for Q3(2025/26) is that maternal smoking rates are around 5.1%. We estimate there are at least 1,425 fewer women smoking annually with an annual savings to maternity of \$5.7million (£4.12million). We estimate this will also have led to a reduction of 731 in neonatal night stays per annum.

Conclusions:

Addressing high maternal smoking rates through a collaborative, high impact approach has improved maternal and child health outcomes and reduced health inequalities for women in NENC.

Smoking and quitting behaviours by different indicators of socioeconomic position in England: a population study, 2014 to 2023

A. Theodoulou¹, J. Hartmann-Boyce², N. Lindson¹, T. Fanshawe¹, S. Jackson³

¹University of Oxford, United Kingdom

²University of Massachusetts, Amherst, United States

³University College London, United Kingdom

Background and aim

The social gradient in smoking is well-established but how associations differ across different indicators of socioeconomic position (SEP) is less clear. This study aimed to estimate associations of five SEP indicators with smoking and quitting-related behaviours.

Methods

We used nationally representative, cross-sectional survey data on 195,543 adults aged ≥ 18 years in England surveyed between Jan-2014 and Dec-2023. Exposures were occupational social grade, employment status, housing tenure, educational-level, and household income. Outcomes were smoking prevalence; motivation to stop smoking; level of tobacco addiction and past-year quit attempts; and use of cessation aids and quitting success. Associations between exposure and outcome variables were estimated using logistic or linear regression, as appropriate. Covariates included age, gender, survey year, and (for the latter two outcomes) level of tobacco addiction.

Results

Across all measures of SEP, increasing disadvantage was associated with higher odds of smoking, higher levels of tobacco addiction, and lower motivation to stop smoking. People from more disadvantaged occupational social grades, on lower household incomes and with less education were less likely to have made a quit attempt in the past year relative to those in the most advantaged categories. Odds of quitting success were lower in more disadvantaged housing tenures; however no clear evidence was observed when looking at other indicators of SEP. There were some differences in use of e-cigarettes as a cessation aid by SEP, but these either varied greatly across different SEP indicators or were inconclusive. There was a lack of clear evidence for all other cessation aids.

Conclusions

Inequalities in smoking persist across multiple forms and degrees of disadvantage across England.

Novel Nicotine Products

15:45 - 16:30

Harm reduction controversial use: the case of alternatives to smoked tobacco in France

M. Baudrin¹¹Anses, France

Background: The concept of harm reduction (HR) now occupies an increasingly prominent place in public health policies in France. Initially developed to address specific health challenges, it has gradually expanded to other fields and practices, to the point of generating multiple and sometimes contradictory interpretations. While its ultimate goal remains the same—preventing or limiting the harmful consequences of risky behaviors or exposures—the modes of action, target populations, and involved stakeholders have evolved, raising questions about the coherence and scope of this approach. “Modified risk products”, “reduced harm”, “reduced risk”, tobacco manufacturers have recently appropriated a lexical field articulated around the notion of risk reduction (RdR) whose use they claim to put forward “alternatives to cigarettes”, ranging from heated tobacco to vaping products including nicotine sachets.

Aims: This article is the result of an expertise carried out by ANSES, the French national agency for food, environmental and occupational health & safety, it aims to trace the main stages in the emergence and dissemination of harm reduction within the field of public health in France.

Methods: Based on a documentary corpus and a discussion of the scientific literature dealing with harm reduction, this work aims to shed light on the continuities, ruptures, and tensions that have accompanied the development of the harm reduction concept.

Results: It shows the underlying logics of action of each version of harm reduction and clarify its boundaries at a time when new objects, such as vaping products, are reigniting the debate over its definition and use.



Awareness and use of oral tobacco and nicotine products among people who smoke or recently stopped smoking: Findings from the 2024 EASE/ITC New Zealand Survey

J. Ball¹, J. Nip¹, J. Zhang¹, J. Hoek¹, J. Stanley¹, A. Waa¹, E. Tautolo², T. Agar³, A. Quah³, G. Fong³, R. Edwards⁴

¹University of Otago, New Zealand

²Auckland University of Technology, New Zealand

³University of Waterloo, Canada

⁴Flinders University, Australia

Background and aim

Aotearoa New Zealand (A/NZ) prohibits the sale of oral tobacco and nicotine products, but permits their importation for personal use. The A/NZ Government has proposed legalising sales, arguing that doing so will support smoking cessation among older adults with long-term smoking histories. We examined awareness and use of tobacco-free oral nicotine products (ONPs), snus, and other oral tobacco products among NZ adults who currently smoke or who have recently stopped smoking.

Methods

We analysed data from adults aged ≥ 18 years in the 2024 (Wave 5) EASE/International Tobacco Control (ITC) NZ Survey (N=1, 371) who currently smoked or had recently stopped smoking. We examined overall prevalence of awareness, ever use, and current use of oral tobacco/nicotine products and prevalence stratified by demographic characteristics and smoking status/cessation intentions.

Results

Awareness was 41.3% for ONPs, 31.5% for snus, and 70.2% for other oral tobacco products. Ever-use was 12.5% (ONPs), 7.0% (snus), 11.6% (other oral products), and 22.4% for any oral nicotine or tobacco products. Current use was 4.1% for ONPs, 2.4% for snus, 2.6% other oral tobacco products, and 6.4% for any oral nicotine or tobacco product.

Current use of any oral tobacco or nicotine product was highest (9.3%) among 18-24 year olds and lowest (3.0%) among people aged >45 years. Current use of any oral product was 5.8% among those who smoked daily with no intention to stop, 8.7% among those who smoked daily who intended to stop, 9.9% among people who smoked less than daily, and 3.3% among people who had recently stopped smoking.

Conclusions:

Use of oral nicotine and tobacco products was more likely to occur alongside continued smoking and was less common among people who had recently stopped smoking, and among older adults. There is limited evidence for the effectiveness of these products as smoking cessation aids and concerning international evidence of youth-oriented social media marketing accompanied by high youth uptake. Our findings and these experiences from other settings challenge the assumption that legalising these products in A/NZ will primarily support smoking cessation among older adults, and support a cautious regulatory approach.



Discreet but not benign: A qualitative analysis of how young adults living in Aotearoa New Zealand perceive oral nicotine pouches

J. Hoek¹, A. Fitton¹, J. Fisher¹

¹University of Otago, New Zealand

Background

Tobacco companies present oral nicotine pouches (ONPs) as a discreet and convenient product that offers people who smoke a “reduced-harm” alternative to smoking or vaping. Yet rather than target people who smoke, ONP marketing has positioned these products as youth-oriented lifestyle accessories. Awareness, ever use and regular use of ONPs has increased rapidly among young people, even in countries that do not allow their sale.

Aim

To explore how ONPs become integrated into young people’s everyday lives and inform policy that protects young people from nicotine addiction.

Methods

We conducted in-depth qualitative interviews with 25 participants aged 16–25 living in Aotearoa New Zealand between November and December 2025. We recruited participants via social media, community advertising, and snowball sampling. In-person and online interviews explored awareness, perceptions and use of ONPs, and views on their regulation. We analysed transcripts using reflexive thematic analysis.

Results

We identified three overall themes: acceptability and versatility, discreetness as an ambiguous attribute, and risk calibration. Participants found ONPs quickly became embedded within their everyday activities, offering benefits of convenience and enhanced focus and performance. Discreetness reduced stigma and enabled use where smoking and vaping were not permitted but also raised concerns about uncontrolled consumption and renormalisation of nicotine use. Participants used non-inhalation as a heuristic signally reduced risk, which “tobacco-free” claims reinforced. Although some saw ONPs as cessation tools, most believed they risked increasing overall nicotine consumption.

Conclusion

Participants’ comments they found ONPs ambiguous products. While perceived as discreet, versatile, and bringing fewer physical risks, they also posed new risks, including renormalising nicotine consumption, which could facilitate poly-use and increase addiction. Thus, although participants saw some potential for ONPs to help some people reduce or stop smoking or vaping, they also saw risks that the nicotine market would expand. The paucity of robust independent evidence on ONPs, suggests a precautionary regulatory approach is prudent, at least until safety and cessation efficacy data are available.



How are new nicotine products marketed in shops? Insight from retail trade press magazines in the UK

A. Morgan¹, N. Critchlow¹, A.M. MacKintosh¹, C. Best¹, A. Ford¹

¹Institute of Social Marketing and Health, University of Stirling, United Kingdom

Introduction and aim: In the UK, the retail availability of new nicotine products (NNPs), such as vaping products, nicotine pouches and heated tobacco, has grown rapidly in recent years. As a result of this market growth and concerns over increased use by young people, the UK government is considering what steps are necessary to regulate and control the NNP market through the Tobacco and Vapes Bill. A key consideration for regulation focusses on how NNPs are marketed and promoted. To date, there is a lack of evidence on how industry and retailers display and promote NNPs and how products are communicated to customers in the retail setting. This trade press review examines key strategies used by retailers and suppliers to display and promote NNPs in stores.

Methods: A review of 236 purposively sampled retail trade press magazines (January 2023-April 2025) focusing on the display and promotion of NNPs and any content which discussed current and potential future controls on the retail display and promotion of NNPs.

Results: Retailers and producers highlighted the importance of where and how NNPs are positioned, promoted, and displayed in store. They deployed a variety of marketing strategies, including: bespoke gantry displays, lights and colour to increase visual salience, and positioning marketing around the exterior and interior of stores to attract consumer attention. Both retailers and suppliers cited the positive consumer impact this marketing had, such as increasing sales, increasing impulse purchasing, and helping to support customers through market changes (e.g. disposables ban). They also highlighted concerns about future restrictions on the retail display and promotion of NNPs within the Tobacco and Vapes Bill, the impact any restrictions may have.

Conclusions: The findings illustrate strategies used by retailers and suppliers to promote NNPs, increase appeal, and attract consumers. The findings also show how retailers and suppliers have already begun to prepare for, and consider their response to, potential restrictions on retail display that may arise from the Tobacco and Vapes Bill.



A Qualitative Examination of ENDS Experiences among Younger and Older Adults who Smoke through a Diffusion of Innovation Lens

O. Ganz¹, K. La Capria¹, J. Gleckel¹, M. Robichaud¹, O. Wackowski¹, C. Delnevo¹, M. Bover Manderski¹

¹Rutgers University, United States

Background: Use of electronic nicotine delivery systems (ENDS) varies among adults, with the highest prevalence among the youngest adults, aged 18-24. Despite the potential for ENDS to provide a safer alternative to cigarette smoking, many adults engage in dual use rather than fully transitioning to ENDS, likely increasing exposure to harmful toxicants. Limited research has examined why adults at different life stages experience and evaluate ENDS differently. Diffusion of Innovation theory (DoI) has been used to understand young adults' uptake of ENDS, but not to explain how ENDS characteristics influence or prevent adults of different ages from switching from cigarettes. **Methods:** Using the constructs of DoI, we conducted in-depth interviews about ENDS use and perceptions with 20 adults aged 18 and over who were current or recent cigarette smokers. Interviewees were stratified into younger adults (18-44) and older adults (45+). Interviews explored experiences with cigarettes and ENDS, perceptions of harm and addictiveness, and assessments of ENDS across key DoI attributes (relative advantage, compatibility, complexity, trialability, and observability). Transcripts were analyzed thematically using a DoI-informed coding framework. **Results:** Key perceived advantages included convenience, social acceptability, flavor variety, and customization, while major barriers included uncertainty about health risks, perceived addictiveness, technological challenges, and incompatibility with established smoking routines and identities. Although this qualitative study was not designed to make generalizable comparisons, participants suggested that social norms, smoker identity, and media exposure may vary by age and shape how ENDS are evaluated and used. **Conclusions:** DoI provides a strong framework for delving into the influences and barriers of ENDS use. Findings reinforce the need for FDA to investigate product characteristics that may influence dependence and appeal, particularly in the context of rapidly evolving disposable and pod-based ENDS products. Future messaging efforts must account for the complex and heterogenous ways that adults conceptualize addiction and harm.

Characterizing Oral Nicotine Pouch-related Instagram Posts

D. Li¹, Z. Xie¹

¹University of Rochester Medical Center, United States

Introduction: Oral nicotine pouches (ONP) have gained increasing popularity in recent years and are widely used among youth and young adults in the U.S. ONP-related posts are prevalent on Instagram, a very popular social media platform among youth and young adults. This study aims to identify non-image post features associated with Instagram user engagement.

Methods: English-language ONP-related Instagram posts were collected from February 2016 to April 2026 using the Meta Content Library, based on relevant keywords such as “oral nicotine pouches” and “Zyn.” We used an error-trend-seasonal (ETS) model to examine temporal trends in ONP product mentions on Instagram. Sentiment in post captions was assessed using a lexicon/rule-based sentiment analysis approach. Associations between non-image post features and user engagement were examined using generalized linear mixed models with random intercepts to account for clustering of engagement outcomes within post owners. Models adjusted for the number of views and time since posting.

Results: We collected 10,609 English-language ONP-related Instagram posts. Time-series analysis showed a significant seasonally adjusted increase in mentions of ONP products on Instagram over time ($\beta = 0.35$, $P < 0.001$). In generalized linear mixed models, posts from creators (relative ratio [RR] = 1.13, 95% CI: 1.03–1.23) and posts with positive (RR = 1.13, 95% CI: 1.06–1.20) or neutral sentiment (RR = 1.22, 95% CI: 1.15–1.30) were associated with a higher number of likes. For comments, posts containing videos were associated with greater engagement (RR = 1.24, 95% CI: 1.10–1.40). Compared with posts from business accounts, posts from creators (RR = 1.31, 95% CI: 1.15–1.48) and personal accounts (RR = 1.57, 95% CI: 1.09–2.26) were associated with a higher number of comments. Posts published on Wednesdays (RR = 1.17, 95% CI: 1.04–1.32) and Sundays (RR = 1.14, 95% CI: 1.01–1.30) were also associated with more comments than posts published on Fridays.

Conclusion: Our study identified several non-image features associated with user engagement in ONP-related Instagram posts, providing important evidence to inform the design of future ONP prevention messages aimed at reducing ONP uptake among youth and young adults in the United States.



Qualitative Perceptions of Oral Nicotine Pouches in Young Adult Cigarette Smokers

H. L'Etoile¹, S. Colby¹, R. Cassidy¹

¹Brown University, United States

Background: Oral nicotine pouches (ONP) are noncombustible and non-carcinogenic nicotine alternatives that have the potential to reduce smoking-related disease and mortality in young adults. The FDA has authorized the marketing of Zyn ONPs. Preexisting perceptions, subjective response to using Zyn, and how Zyn compares to their usual brand cigarettes may influence young adults' switching behaviors. We examined participants' qualitative reactions to Zyn ONPs following a protocol in which they sampled 3 flavored products and then chose one to sample for 30 minutes.

Aims:

We aimed to answer the following questions: What are young adults' preexisting perceptions of Zyn? How do young adults perceive Zyn after sampling them? How are Zyn perceived to compare to their usual brand of cigarette?

Methods:

Young adults who smoke cigarettes at least 3 times per week ($n=13$, mean age [SD] = 24.5 [2.4], mean cigarettes per day (CPD)[SD] = 4.9[2.8]) with no recent experience using Zyn sampled three flavors of Zyn ONPs (cool mint, wintergreen, and citrus) in either 3mg ($N=12$) or 6mg ($N=1$) for thirty seconds each. Then, participants sampled their preferred flavor for thirty minutes. Participants were interviewed about their prior perceptions of Zyn, nicotine level, flavor perceptions, and how the ONPs compared to their experience of smoking. Interviews were thematically coded for 'preexisting Zyn perceptions', 'subjective response', 'comparison to usual brand cigarettes', and others.

Results:

Perceptions of the Zyn brand varied, with several expressing negative perceptions of people who use the product. After sampling, participants were generally favorable of the taste and nicotine level of their chosen flavor, with several reporting reduced craving, though a few also reported unpleasant nicotine effects such as nausea. Most participants contrasted the experience of using Zyn with the "act" of smoking a cigarette, which they preferred; however, several also acknowledged the health benefits of Zyn relative to cigarettes.

Conclusion:

Oral nicotine pouches may be a promising alternative to cigarette smoking in young adults. This study provides a basis for future studies to investigate these products as reduced-harm alternatives by identifying qualitative aspects of ONP use that may promote or impede full switching in this population.



Perceptions among Healthcare Professionals regarding ENDS Use and Counseling Practices

C. Kwan¹, M. Dark¹, E. Klyushnenkova¹, C. Kernan¹, N. Khanna¹

¹University of Maryland School of Medicine, United States

Background: Around 5% of United States adults (18 and older) use Electronic Nicotine Delivery Systems (ENDS), often as a perceived safer alternative to cigarettes. Despite lacking Food and Drug Administration approval, ENDS are frequently used, and sometimes even recommended by healthcare professionals, as a smoking cessation method.

Aims: This study examined ENDS-related knowledge, perceptions, and counseling practices among healthcare professionals in a local health system.

Methods: A cross-sectional survey was distributed to healthcare professionals at the University of Maryland Medical System from September 2024 to March 2025. Key measures included perceived risk of ENDS use (range 0-3), acceptance of ENDS as a cessation method (range 0-3), perceived confidence/action in ENDS counseling (range 0-2.8), and ENDS knowledge (range 0-24). Higher scores indicated greater perceived risk, acceptance, confidence, and knowledge, respectively. Kruskal-Wallis tests were used to assess score differences between healthcare professional roles (attending physicians, fellows/residents, and other).

Results: Among 92 respondents, 49 (53%) were physicians, 22 (24%) were fellows/residents, and 21 (23%) were other healthcare professionals. Median scores for the study population were 2.4 (interquartile range [IQR] 0.5) for perceived risk, 1.8 (IQR 0.6) for acceptance, 1.5 (IQR 0.9) for perceived confidence/action, and 12.0 (IQR 3.0) for knowledge. The distribution of acceptance scores differed significantly between the healthcare professional roles (chi-square=8.5; p=0.0139), with physicians and fellows/residents viewing ENDS as a cessation method more favorably compared to other healthcare professionals. Examination of some of the individual survey items comprising the acceptance score indicated that 70 (76%) respondents believed ENDS can decrease the number of cigarettes smoked, 40 (43%) respondents believed ENDS can lower the risk of tobacco-related disease, and 23 (25%) of respondents believed ENDS can be regarded as a type of smoking cessation treatment. No significant differences were observed among the perceived risk, confidence/action, and knowledge score distributions between healthcare professional roles.

Conclusion: Healthcare professionals' attitudes towards ENDS use vary by role. These findings highlight the need for tailored educational and training programs that address differing perspectives and ensure consistent, evidence-based counseling across provider types.

Smoking Cessation

15:45 - 16:30

Immediate post-visit scheduling was associated with increased follow-up visits in a specialist smoking cessation clinic in Gdańsk, Poland

K.B. Kubiak^{1,2}, J. Nowicka-Janik^{1,2}, C. Ambroży^{2,3}, J. Arendt^{2,3}, A. Małkowski^{2,3}, K. Michta^{2,3}, U. Siderska^{2,3}, A. Drażkowska², Ł. Balwicki^{1,2}

¹Division of Public Health and Social Medicine, Medical University of Gdańsk, Poland

²University Clinical Centre in Gdańsk, Poland

³Faculty of Medicine, Medical University of Gdańsk, Poland

Background:

Retention in nicotine dependence treatment is vulnerable to organizational friction between visits. In routine care, patients may be required to contact hospital registration after leaving the clinic to schedule their next appointment, creating an avoidable barrier to follow-up.

Aim:

To evaluate a low-cost workflow improvement introduced in the Centre for Nicotine Prevention (CNP), a specialist smoking cessation clinic in Gdańsk, Poland.

Methods:

This was a service-level quality improvement analysis using aggregated quarterly visit counts from CNP. Before implementation, patients could schedule follow-up appointments later by phone, email, or in person, but had to initiate contact after leaving the clinic. During 2025-Q2, a new workflow was introduced: after completing the current visit, patients were directed to the adjacent preparation room, where clinic staff offered immediate scheduling of the next follow-up visit. The implementation quarter was treated as a transition period and excluded from the main comparison. The primary outcome was the number of follow-up visits conducted per quarter. We compared two pre-implementation quarters immediately preceding the change (2024-Q4, 2025-Q1) with three post-implementation quarters (2025-Q3, 2025-Q4, 2026-Q1). Follow-up visits per first visit were calculated to account for changes in clinic volume.

Results:

In the pre-implementation period, the clinic recorded 228 first visits and 61 follow-up visits, corresponding to a mean of 30.5 follow-up visits per quarter and 0.27 follow-up visits per first visit. In the post-implementation period, the clinic recorded 348 first visits and 339 follow-up visits, corresponding to a mean of 113 follow-up visits per quarter and 0.97 follow-up visits per first visit. This represented a 3.7-fold increase in mean quarterly follow-up visits and a 3.6-fold increase in follow-up visits per first visit. From the second post-implementation quarter onward, follow-up visits remained more than 4-fold higher than the pre-implementation mean.

Conclusion:

A simple workflow change that removed patient-side scheduling friction was associated with a substantial increase in follow-up visits in CNP. Because only aggregated visit counts were available, the analysis assessed service-level follow-up activity rather than individual patient retention. Organizational workflow redesign may be an underused strategy for improving continuity of smoking cessation care.



Non-cigarette tobacco cessation support in England: current provision, confidence, and barriers identified in a cross-sectional survey of healthcare professionals involved in smoking cessation support

Y.S. Byun¹, E. Taylor², L. Shahab¹, K. East³, J. Brown¹, H. Tattan-Birch¹, S. Cox¹, M. Mishu¹, D. Hammond⁴, S. Jackson⁵

¹UCL, United Kingdom

²King's College London, United Kingdom

³University of Sussex, United Kingdom

⁴University of Waterloo, Canada

⁵University College London, United Kingdom

Background: While cigarette smoking remains the dominant form of tobacco use in England, a range of other tobacco products are also used. Evidence on demand for non-cigarette tobacco cessation support – and on providers' preparedness and barriers to offering such support – remains limited.

Aims: To examine healthcare professionals' awareness, confidence, training, and current practices related to non-cigarette tobacco cessation across England.

Methods: We conducted a cross-sectional online survey of professionals involved in smoking cessation support in England (n=96). For each specific non-cigarette tobacco products (cigars, cigarillos, shisha, pipes, bidis, chewing tobacco, dry snuff, moist snuff/dip, and heated tobacco), the survey assessed awareness, perceived harms, demand for cessation support, interventions offered, training and confidence, and perceived barriers to providing support.

Results: Awareness was universal for cigars, pipes, and shisha; high for chewing tobacco (87.5%), heated tobacco (77.1%), and cigarillos (71.9%); and lower for dry snuff (56.3%), bidis (33.3%), and moist snuff/dip (26.0%). Client demand for cessation support was low: 20.8% of participants reported requests at least monthly for cigars and ≤13.5% for other products. Support was mainly behavioural and NRT-based, with few offering other pharmacotherapies (<25%). Most participants who offered support used the same approach as for cigarettes (>90% across products), with few having received product-specific training (2.1-19.8% of all participants). The main barriers included perceived lack of demand (46.9%), training (44.8%), and knowledge (43.8%); open-ended responses also emphasised that commissioning constraints excluded non-cigarette products.

Conclusions: Healthcare professionals in England report limited demand for cessation support for non-cigarette tobacco products, which may partly reflect service reach and commissioning constraints rather than lack of need. Few report receiving product-specific training; most apply standard cigarette cessation approaches or are not commissioned to provide support.



Proactive re-engagement of older smokers in Wales: a protocol quasi-randomised trial embedded within a national cessation service

N.F. Frennesson¹, C. Emmerson¹, R. Howell¹, J. Lewis², R. Embling¹

¹Public Health Wales, United Kingdom

²Cardiff University, United Kingdom

Background: Smoking remains the leading cause of preventable morbidity and mortality in Wales, responsible for over 10% of deaths among adults aged ≥ 35 . Although the Help Me Quit (HMQ) programme provides effective behavioural and pharmacological support, many individuals disengage before successfully quitting. Older smokers (aged 55–74) are a key priority group due to longer smoking histories and an increased risk of smoking-related disease. Re-engaging individuals who have previously attempted to quit represents a potential opportunity to improve cessation outcomes and reduce health inequalities.

Aim: To evaluate whether proactive re-engagement, and the framing of re-engagement messages, influences re-enrolment in a national smoking cessation programme.

Methods: This study protocol describes a pragmatic quasi-randomised controlled trial embedded within routine HMQ service delivery. A cohort of 6,415 individuals aged 55–74 who previously attended at least one session but did not quit smoking were identified from service records. Participants are allocated to intervention or control groups, with monthly random selection. Intervention participants receive a three-stage contact sequence (two text messages followed by a phone call), while control participants receive no contact. Message framing is varied across four conditions: standard invitation, health-focused, finance-focused, and medication-focused messaging. The primary outcome is re-enrolment in the programme, defined as attendance at ≥ 1 session following contact or selection. Secondary outcomes include quit status at four weeks, session attendance, and timing of re-engagement. Analyses will follow an intention-to-treat approach using logistic regression, adjusting for demographic and behavioural covariates.

Results:

A pilot phase has been completed to test feasibility of embedding proactive outreach within existing systems. To date, 100 standard invitation text messages have been successfully delivered to eligible participants. This pilot demonstrates the feasibility of identifying eligible individuals from service data and delivering outreach at scale within the HMQ infrastructure. Full implementation is scheduled to commence in July 2026.

Conclusion:

This study protocol outlines an approach to re-engaging older smokers within a national cessation service. Early findings support the feasibility of implementation. The full trial will provide evidence to inform strategies to increase service reach and support Wales' ambition to achieve a smoke-free population by 2030.



Perceptions of Smoking, Health, and Cessation in Older Adulthood: a Qualitative Study

N.F. Frennesson¹, A. Kolosowska¹, C. Emmerson¹, R. Howell¹, R. Embling¹

¹Public Health Wales, United Kingdom

Background: Smoking remains the leading cause of preventable morbidity and mortality in Wales. Despite declining prevalence, older adults remain a key priority group due to long-term exposure and increased risk of smoking-related disease. Engagement with smoking cessation services varies, and there is limited understanding of how this group perceives quitting, support, and interventions.

Aim: To explore the perspectives of smokers and ex-smokers, aged 55–74 on barriers and facilitators to engaging with smoking cessation programmes, including the role of health perceptions, social influences, and support needs.

Methods: Preliminary findings are reported from qualitative focus groups with adults aged 55–74, who currently smoke or have quit within the past five years. Data were analysed using an inductive thematic approach.

Results: Four themes have been identified so far. (1) Smoking as habit and coping: Smoking was embedded in daily routines and linked to stress and emotional regulation. Repeated quit attempts were common, with relapse often triggered by life stress. (2) Health beliefs and quitting triggers: Many participants reported they would be unlikely to attend lung cancer screening, often preferring 'not to know' and believing little could be done if cancer was found. Quitting was often prompted by health scares (e.g. hospitalisation or respiratory illness) or relational motivations, including staying healthy for family or pets. (3) Social influences: Smoking was normalised earlier in life, with early initiation being common. Social networks could hinder and support quitting, with family acting as a motivator for some, while others experienced pressure that led to resistance. (4) Cessation support experiences: Participants highlighted the importance of personalised, supportive, and ongoing cessation support. Rigid approaches were viewed as less helpful, while personal and relational aspects of support were important for engagement.

Conclusions: These preliminary findings highlight the role of habit, health perceptions, and social context in shaping smoking behaviours among older adults. Reluctance to engage with lung cancer screening, linked to a preference not to know and beliefs about limited treatment options, suggests an important barrier to early detection. Smoking cessation programmes that respond to stressful life events and provide personalised, long-term support may improve engagement and outcomes.



Coordinating Smoking Cessation Treatment with Menstrual Cycle Phase to Improve Quit Outcomes: Findings from an Online Randomized Controlled Trial

T. Kabir^{1,2}, S. Veldhuizen², S. Voci², O. Melamed², P. Selby^{1,2}, L. Zawertailo^{1,2}

¹University of Toronto, Canada

²Centre for Addiction and Mental Health, Canada

Background. Women are more susceptible to smoking-related disease yet experience greater difficulty quitting compared to men. Ovarian hormone fluctuations during the menstrual cycle can affect smoking cessation. Therefore, coordinating a quit attempt to a specific phase of the menstrual cycle could improve quit outcomes in premenopausal females who smoke.

Aims. This trial investigates whether quitting in the mid-follicular or mid-luteal phase of the menstrual cycle improves smoking abstinence. We hypothesized that participants who attempted to quit in the mid-follicular phase would have a higher quit rate than those quitting without considering menstrual cycle phase (usual care, UC), or in the mid-luteal phase.

Methods. Naturally cycling individuals (n=602) were randomized to set a target quit date either: 1) during their mid-follicular phase; 2) during their mid-luteal phase, or 3) any day within 15-60 days of enrolment (UC). All participants received a 6-week supply of nicotine replacement therapy. Dried blood spots were collected on target quit date to quantify ovarian hormones. Quit outcomes were assessed by self-report on day 7, at 6 weeks, and 6 months post-target quit date. Quit outcomes will be compared between groups using mixed-effects regression models.

Results. Recruitment concluded on April 20, 2026 (mid-follicular group: 187; mid-luteal group: 228; usual care: 187). On average, participants were 33.9 ± 5.2 years old and smoked 16.7 ± 10.0 cigarettes per day at baseline. The 7-day point prevalence of smoking abstinence (PPA) on day 7 was 31.2% in the mid-follicular group, 36.2% in the mid-luteal, and 33.0% in usual care (response rate 53%; 289/548). At 6 weeks, the 7-day PPA was 56.7% in the mid-follicular group, 50.0% in the mid-luteal, and 30.5% in usual care (response rate 33%; 181/543). One hundred participants have completed the 6-month follow-up, with an overall 30-day PPA of 40%. The full data analysis will be presented at the meeting.

Conclusion. With no consensus on how menstrual cycle affects smoking cessation, this real-world trial will elucidate the effects of menstrual cycle phase and ovarian hormones on quit outcomes with nicotine replacement therapy. Findings may inform accessible sex-specific interventions and help reduce the sex gap in quit outcomes.

Ethical Development of a Conversational Agent to Support Varenicline Adherence

N. Minian¹, P. Selby¹, L. Zawertailo¹, S. Veldhuizen¹

¹CAMH, Canada

Background: Suboptimal adherence to varenicline remains a major barrier to smoking cessation, with over one-third of patients discontinuing treatment within the first two weeks. Digital interventions, including conversational agents, offer scalable adherence support but raise ethical challenges in clinical contexts, particularly related to safety, transparency, and equity. ChatV is a theory-informed, rule-based conversational agent developed to support varenicline adherence using a curated library of clinician-validated, evidence-based responses grounded in behavioural science.

Objective: To describe how ethical principles were operationalised throughout the design of ChatV and to propose a framework for ethically responsible chatbot development.

Methods: ChatV was developed using a multi-phase, theory- and evidence-informed approach. First, a rapid systematic review identified key barriers and facilitators to varenicline adherence. Second, semi-structured interviews were conducted with 20 patients and 19 healthcare providers; data were analysed thematically to inform intervention targets and user needs. Third, a Wizard of Oz study (n = 39) simulated real-time interactions to refine conversational flows, assess response safety, and identify unanticipated user queries. Fourth, intervention functions and behaviour change techniques were selected using the Behaviour Change Wheel and refined through application of APEASE criteria (Affordability, Practicability, Effectiveness, Acceptability, Side-effects, Equity).

A rule-based conversational architecture was implemented, comprising a clinician-validated response library mapped to predefined user intents. Ethical considerations, including transparency, scope limitation, and risk mitigation, were integrated at each stage of development.

Results: Ethical principles informed design decisions. A rule-based architecture was selected over generative AI to minimise the risk of unsafe or non-evidence-based outputs, enabling full auditability and clinical validation of all responses. Transparency was operationalised by clearly informing users they were interacting with an automated system and by explicitly delimiting the chatbot's scope to medication support. Co-design recruitment prioritised inclusion of participants from equity-seeking groups, and application of APEASE criteria ensured behaviour change techniques were not only effective but also feasible, acceptable, and equitable. The resulting system delivers reminders, side-effect management support, tracking, and motivational messaging.

Conclusions: ChatV demonstrates that ethical principles, particularly safety, transparency, and equity, can be translated into concrete design and governance decisions, offering a replicable model for developing trustworthy conversational agents.

AMIGOS (A Multimedia Intervention for Group-based Online Support) to Promote Smoking Cessation among Latinos: Study Protocol for a Feasibility Trial

J. Ramos Santiago¹, I. Vilca², M. Delgado Sutton³, E. Rivera-Segarra⁴, A.P. Cupertino¹, F. Cartujano-Barrera¹

¹University of Rochester Medical Center, United States

²SNAP-Ed New York, United States

³Latinos Unidos Contra el Cancer, Cancer Support Community at Gilda's Club Rochester, United States

⁴Ponce Health Sciences University, Puerto Rico

Introduction

Latino adults in the United States face a disproportionate and growing burden of tobacco-related disease. More than five million Latino adults currently smoke, and tobacco-related disparities remain substantial due to limited access to culturally and linguistically appropriate cessation resources. Although mobile health (mHealth) interventions have shown strong potential to overcome traditional barriers to care, existing approaches for Latino populations remain largely individual-level, text-based, and insufficiently attuned to the central role of social support in smoking behavior.

Aims

Building on evidence that smoking is often socially reinforced and that peer support can enhance quit success, we propose AMIGOS (A Multimedia Intervention for Group-based Online Support), the first culturally accommodated, group-based mHealth smoking cessation intervention developed specifically for Latino adults. The purpose of this study will be to develop AMIGOS and evaluate its feasibility, acceptability, and preliminary abstinence rates among Latino adults.

Methods

This study will use a multi-phase, mixed methods design over three years. AMIGOS will adapt our prior efficacious intervention, Decídetexto, a culturally tailored individual-level text messaging program for Latinos who smoke, by incorporating group-based peer support and multimedia communication features. In partnership with a Community Advisory Board of Latinos with diverse smoking experiences, we will integrate culturally appropriate content delivered via WhatsApp, a widely used platform among US Latinos, into a 12-week program facilitated by a bilingual tobacco treatment specialist. Guided by community-based participatory research principles, Social Cognitive Theory and the Cultural Accommodation Model, we will (1) use user-centered design methods to develop AMIGOS with Latino adults who smoke; (2) conduct a single-arm pilot study with 30-50 Latino adults enrolled across five WhatsApp groups to assess feasibility, acceptability and preliminary cessation outcomes (e.g., self-reported abstinence, engagement); and (3) examine barriers and facilitators to implementation through semi-structured interviews with 20 intervention participants, analyzed using the Consolidated Framework for Implementation Research.

Expected Outcomes

This study will generate critical data on the feasibility, acceptability, and preliminary effectiveness of a culturally appropriate, group-based mHealth cessation intervention for Latino adults. Findings will inform iterative refinement of AMIGOS and provide the foundation for a future randomized controlled efficacy trial.



ENHANCING ACCESS TO SMOKING CESSATION SUPPORT: USE AND IMPACT OF AN ONLINE BOOKING PLATFORM FOR SMOKING CESSATION SPECIALISTS IN FLANDERS (BELGIUM)

M. Pappens¹, L. Belenger¹, L. Buelens¹, S. Schol¹

¹Respiratoire Gezondheid, Belgium

BACKGROUND AND AIMS

Despite the well-established health and economic benefits of smoking cessation support, access to professional services remains suboptimal. In Belgium, Smoking Cessation Specialists provide evidence-based support, partially paid by the government. However, both direct uptake by smokers and referrals from healthcare professionals remain limited.

To address these barriers, the online platform (www.tabakologen.be) was redesigned to improve accessibility to Smoking Cessation Specialists for both smokers and healthcare professionals. The platform aims to facilitate engagement with cessation services and strengthen referral pathways within routine care.

METHODS

The platform was redesigned to include a geolocation-based search tool and an integrated online booking system. Smokers can directly request appointments with certified Smoking Cessation Specialists, while healthcare professionals can submit requests on behalf of their patients. Platform usage was monitored over a one-year period, between 23 May 2025 and 28 April 2026, including website traffic, acquisition channels, and appointment requests.

RESULTS

During the monitoring period, the platform recorded 83.778 page views and 12.730 unique visitors. Of these users, 41.27% (n=5254) accessed the platform via organic search, 30.72% (n=3911) via referral, and 28.54% (n=3633) through direct access. Only a small proportion originated from organic social media (0.54%, n=69) or unassigned sources (0.13%, n=17).

A total of 709 appointment requests were submitted through the system. Most requests were initiated directly by smokers, with limited contribution from referral pathways: 10 requests originated through family members, 12 through medical doctors, 2 via the Quitline (Tabakstop), and 13 through other sources.

CONCLUSIONS

These findings suggest that digital tools such as online booking platforms can facilitate access to smoking cessation support, primarily driven by self-referral and search-based discovery. The minimal contribution of social media highlights an important opportunity for targeted outreach and increased visibility. Additionally, the low number of referrals through healthcare professionals indicates that further efforts are needed to better integrate the platform into routine clinical practice and referral pathways.

Acute Post-Quit Mood and Early Relapse to Smoking or Vaping: A Systematic Review

E. Knight¹, F. Al-Huda¹, G. Hughes², K. McPherson¹, A. Theodoulou^{1,3}, J. Livingstone-Banks¹, J. Hartmann-Boyce⁴, G. Taylor⁵, H. McRobbie⁶, A. Difeng Wu¹, N. Lindson¹

¹Nuffield Department of Primary Care Health Sciences, University of Oxford, Oxford, United Kingdom

²Department of Experimental Psychology, University of Oxford, Oxford, UK, United Kingdom

³National Centre for Education and Training on Addiction, Flinders Health and Medical Research Institute, Flinders University, Adelaide, Australia

⁴Department of Health Promotion and Policy, University of Massachusetts Amherst, Amherst, MA, United States

⁵Centre for Public Health, and Medical Research Council's Integrative Epidemiology Unit, University of Bristol, Bristol, United Kingdom

⁶Wolfson Institute of Population Health, Queen Mary University of London, London, United Kingdom

Background

Acute mood changes following smoking or vaping cessation may contribute to early relapse, with the first four weeks strongly predicting longer-term abstinence. Individual studies suggest that post-quit mood, including negative affect, anhedonia, and irritability, is associated with relapse risk, but evidence has not been systematically synthesised during this critical period.

Aims

To systematically review and meta-analyse associations between post-quit mood within four weeks of cessation and subsequent relapse to smoking or vaping within 12 weeks, and explore variation by intervention type and psychiatric history.

Methods

We searched MEDLINE, Embase, PsycINFO, CENTRAL, CINAHL, and Web of Science in March 2026 for prospective studies of adults abstinent from smoking and/or vaping. Eligible studies assessed mood during the first four weeks post-quit and reported relapse or abstinence within 12 weeks. Screening and extraction followed a partially duplicate process. Risk of bias will be assessed using the Newcastle-Ottawa Scale. Random-effects meta-analyses will pool effect estimates for change in mood from pre- to post-quit and absolute post-quit mood. Planned subgroup analyses include timing, mood domain, nicotine delivery system, and psychiatric history. We are contacting study authors to obtain data for meta-analysis.

Results

We identified 18,149 records and removed 8,971 duplicates. Of 9,178 records screened, 8,608 were excluded. Full-text screening is ongoing; approximately one-quarter has been completed, with 15 studies included to date. Evidence indicates greater post-quit anhedonia is associated with reduced odds of abstinence, independent of other withdrawal symptoms. Other included studies suggest depressive symptoms, anxiety sensitivity, and related affective processes within four weeks post-quit are associated with earlier relapse. Intervention studies suggest targeting mood may improve short-term cessation outcomes. This presentation will include final meta-analytic results and narrative synthesis of other eligible data.

Conclusion

Findings to date support early post-quit mood disturbance as a proximal mechanism in relapse to smoking and vaping. This review provides the first time-sensitive synthesis of these associations and highlights mood as a potential intervention target during the highest-risk period for relapse.



Healthcare professionals' experiences and perspectives on cessation support for people who use non-cigarette tobacco: a qualitative study

E. Taylor^{1,2}, H. Tattan-Birch³, S. Cox³, L. Shahab³, J. Brown³, M. Pervin Mishu³, K. East⁴, S. Jackson³, H. Cheeseman⁵

¹University College London, United Kingdom

²King's College London, United Kingdom

³UCL, United Kingdom

⁴Brighton and Sussex Medical School, United Kingdom

⁵ASH, United Kingdom

Background:

A range of non-cigarette tobacco products are currently used in England, including cigars, cigarillos, pipes, bidis, shisha, and chewing tobacco. Use of these products, specifically shisha, bidis and chewing tobacco, is more common among ethnic minority communities, where they can hold cultural meaning. Under the new Tobacco and Vapes Act, all tobacco products, including these products, will be included in the generational age of sale ban. Healthcare services provide comprehensive cigarette smoking cessation support; however, little is known about the support available or specific barriers that healthcare professionals face when supporting people to quit non-cigarette tobacco.

Aims:

To explore healthcare professionals' 1) experiences of providing cessation support for non-cigarette tobacco, 2) perceived barriers and facilitators, and 3) suggestions for improving service provision.

Methods:

Four semi-structured focus groups and interviews were conducted with N=19 specialist (tobacco dependence advisors) and non-specialist (e.g. pharmacist, nurse) healthcare professionals who had experience in providing smoking cessation support across England. Data were analysed using iterative categorisation with thematic analysis.

Results:

Healthcare professionals vary in their experiences supporting people to stop using non-cigarette tobacco products, usually depending on demographic composition of the local community. Professionals who regularly engage with people who use non-cigarette tobacco described providing a range of tailored support, such as behavioural support, nicotine replacement therapy, and vapes. Structural barriers to providing support included screening tools that only ask about "smoking," commissioning that restricts services to cigarette use, and limited training and resources for non-cigarette products. Professional barriers included low confidence in supporting cessation due to a lack of official guidance or training on these products. Recommendations to improve services included adapting screening tools to capture non-cigarette tobacco use, expanding service eligibility to all tobacco users, developing culturally tailored resources, and strengthening community partnerships to improve outreach.

Conclusions:

In a sample of healthcare professionals in England, there was substantial variation in the provision of, and healthcare professionals' confidence in providing, support for non-cigarette tobacco cessation. Amending screening tools, developing clinical training and guidelines, and expanding access to services for all types of tobacco use could improve support provision and improve treatment equity.



Association of the Dutch national Stoptober campaign with smoking cessation: a prospective longitudinal analysis

F. van den Brand¹, M. Twellaar¹, A. Kunst², B. Winkens¹, O. Van Schayck¹, G. Nagelhout^{1,3}

¹Maastricht University, Netherlands

²Amsterdam UMC, Netherlands

³Avans University of Applied Sciences, Netherlands

Introduction: Stoptober is an annual nationwide smoking cessation campaign that encourages people to quit smoking collectively for 28 days in October. This study evaluates Stoptober 2022 in the Netherlands, focusing on smoking outcomes up to one year and the role of psychosocial determinants.

Methods: A prospective cohort study (n=1273) was conducted among participants who registered for Stoptober. Online surveys were administered at baseline, post-campaign, and at four and twelve months, supplemented with reminder calls to reduce attrition. Smoking abstinence was self-reported. Logistic regression was used to assess associations between baseline characteristics and psychosocial determinants related to smoking, and abstinence at four and twelve months. Determinants included intention, confidence, self-efficacy, attitude, social norm, and non-smoker identity. Linear mixed models examined longitudinal changes in determinants between abstinent participants and those who relapsed.

Results: From the participants, 34.9% (359/1030) reported that they had remained abstinent during the 28 days of Stoptober. At four months, 299/1273 (23.5%) participants were abstinent; at twelve months, 284/1273 (22.3%) were smoke-free. A higher frequency of Stoptober app use was positively associated with abstinence at four months (OR=1.47, 95%CI=1.03-2.11) but not at twelve months. Longitudinal analyses showed consistently higher self-efficacy and slightly higher non-smoking identity among abstinent compared with relapsed participants.

Conclusions: Stoptober was associated with substantial long-term quit rates and therefore shows the potential of theory-driven collective quitting campaigns to engage and support diverse groups of people who smoke.

“While they’re here, we can give them the chance to change”: Staff perspectives on embedding tobacco dependence services within the English National Health Service

M.R.J.(. Aquino¹, B. Senior¹, F. Watson², M. Patterson¹, S.E. Ramsay¹, E.F. Kaner¹

¹Newcastle University, United Kingdom

²Tees, Esk and Wear Valleys NHS Foundation Trust, United Kingdom

Background:

Tobacco remains a leading cause of preventable death. It disproportionately affects people from lower socioeconomic backgrounds, those with severe mental illness, and pregnant women. The English National Health Service (NHS) offers Tobacco Dependence Services (TDS) to everyone identified as tobacco users within acute, maternity, and mental health settings. Understanding staff experiences of implementing TDS and perceptions of its impacts, including embedding this innovative service into everyday practice, is key to advancing the provision of treatment and support to those most vulnerable to tobacco harms.

Methods:

Qualitative interviews with purposefully sampled TDS staff, drawn from a mixed-methods evaluation of TDS delivered in the English NHS. Data were analysed framework analysis. Informed by Normalisation Process Theory.

Findings:

Between 2022-2024, we interviewed staff in acute, maternity, and mental health services in England (N=78; e.g., tobacco dependency advisers, midwives, nurses, pharmacists, managers, and service leads). Seven themes were identified. Service design and infrastructure report the improvements in the accessibility and quality of opt-out TDS compared with previous opt in models and hospitalisation/clinical encounters as a ‘critical window’ for engaging tobacco users. Professional identity and role clarity outlines staff attributes that promoted high-quality care e.g., being an ‘expert by experience’. Organisational and systemic influences reveal challenges faced including workforce instability due to time limited funding, competing clinical priorities, pre-existing culture/attitudes towards smoking (especially in mental health settings) and limited integration with community services. Leadership and collaboration demonstrate the influence of strong senior leadership/support and interprofessional collaboration on implementing high-quality TDS. Workforce development and training highlight the value of ongoing training and development opportunities to support wider implementation and knowledge exchange. Policies and behaviour change approaches describe the evolving framing and language around treating tobacco dependence which can support engagement. Data and evaluation reflect challenges to monitoring impact including fragmented/complex data systems, and the need to capture measures of success other than quit rates (e.g., improved health, financial gains).

Conclusion:

Embedding high-quality hospital-based TDS into routine care with requires adequate, sustainable resources and strong leadership. Findings show staff find TDS appropriate for NHS settings, addressing inequities by reaching and benefitting the most disadvantaged tobacco users.



The Motivation to Stop Scale - Results from Health in Germany panel 2025, a representative survey of the German population

A. Starker¹, D. Mößnang¹

¹Robert Koch Institute, Germany

Background:

Monitoring motivation to quit smoking can identify necessary tobacco control measures. The Motivation to Stop Scale (MTSS) is a validated, single-item tool enabling standardised, population-level assessment of quitting motivation. The seven response categories capture increasing levels of motivation to quit smoking from absence of motivation (level 1) to strong desire and short-term intention to quit (level 7).

Aims:

We aimed to examine the distribution of motivation to quit smoking among adult smokers in Germany and to identify differences between demographic and educational groups.

Method:

We used the 2025 Health in Germany panel data from the Robert Koch Institute, a population-based survey collected via web and paper questionnaires. The sample was drawn from residents' registration offices. Complete-case analyses of current smoking and motivation to quit smoking were conducted for adults aged 18 years and older, resulting in an analytic sample of 4,982 participants. Motivation to quit smoking was assessed using the German version of MTSS. Weighted prevalence estimates with 95 % confidence intervals were calculated and stratified by gender, age and CASMIN education groups. Multivariable ordinal regression examined associations between cessation motivation and sociodemographic characteristics.

Results:

The distribution of cessation motivation across the seven MTSS levels was uneven, with the highest proportions in level 2 (28.7%, 95% CI: 26.7–30.6), level 5 (22.4%, 95% CI: 20.5–24.3), and level 1 (19.9%, 95% CI: 18.2–21.6). Level 3 accounted for 15.2% (95% CI: 13.6–16.8), while levels 4 and 6 were each about 5%. Level 7 was least common (3.8% 95%, CI: 3.0–4.6).

No significant associations were found between cessation motivation and age (OR=1.00, 95% CI: 0.99–1.01) or gender (OR=1.05, 95% CI: 0.89–1.23). Compared with individuals with low educational level, participants with high education showed a non-significant tendency toward lower motivation (OR=0.84, 95% CI: 0.65–1.10), with no effect for medium educational level (OR=0.95, 95% CI: 0.78–1.14).

Conclusion:

The findings suggest that low motivation to quit smoking is widespread across sociodemographic groups. This highlights the need for population-wide strategies to support smoking cessation. Future research should investigate further psychological, behavioural, and structural factors that may influence motivation to quit smoking.



Coordinated generalized practice and specialized smoking cessation: the PACOO-TAB program.

N. Lajzarowicz^{1,2}, I. Lhommède²

¹University of Bordeaux, France

²Bouscat Suburban Hospital, France

way in which healthcare professionals are trained in smoking cessation and how they integrate it into their daily practice in a guided and pragmatic manner needs focused attention.

The PACOO-TAB program, an innovative initiative developed in 2017 in the Bordeaux region (Gironde), is a collaborative program between primary care physicians and tobacco cessation specialists, providing multidisciplinary support and “experiential” training to primary care physicians, who also receive educational tools on smoking cessation. The patient plays an active role in her own care and reports back to the primary care physician what they understood from the appointment with a specialist.

Beyond empowering the patient as a healthcare partner, the public health challenges are threefold:

- to increase the number of smokers who successfully quit through experience sharing between them and their health professionals. They can then, in turn, share their expertise with the paramedical staff working with the patient.
- to reduce the significant burden of preventable healthcare costs, due to the link between smoking and nearly all diseases, as well as drug interactions with tobacco smoke, which undermine the effectiveness of many medical treatments.

- to streamline health care pathways by relieving the pressure on addiction clinics, which are increasingly overwhelmed yet continue to provide sustained follow-up for persons who have difficulty quitting smoking.

The PACOO-TAB program has been evaluated in a positive way: qualitative assessments among the first 30 GPs involved and quantitative analysis of 173 shared care cases. An impact study on professional practices conducted by the regional health insurance agency demonstrated an effect on changes in smoking cessation practices of private healthcare practitioners.

Since mid-2024, a national pilot study, involving 13 hospitals, mostly university-affiliated, has been supported by the Scientific Committee of the National League Against Cancer. IPLESP researchers are involved in the qualitative evaluation of the project.

The PACOO-TAB Program (Coordinated Pathway for Smoking Cessation) received the 2025 French Award for the Fight Against Smoking, presented by the National Academy of Medicine.



Keynote Lecture: Stéphanie Caillé-Garnier

10:00 - 11:15 | AMPHITHÉÂTRE ROUSSY

Pre-clinical studies on novel nicotine products: Chemical Characterization, Emissions, and Health Risk Assessment

10:00 - 10:15

A Systematic Review and Meta-Analysis of Inflammatory and Oxidative Stress Biomarkers Associated with E-cigarette Usage

J. Heshmati¹, Z. Li¹, S. Mahmoodianfard¹, T. Gelibo¹, H. Thode¹, S. Shahan¹, M.E.M. El Yamani¹, H. Mir¹¹University of Ottawa Heart Institute, Canada

Background: The effects of e-cigarette use on inflammatory and oxidative stress biomarkers remain incompletely understood. This systematic review and meta-analysis evaluated biomarkers among e-cigarette (EC) users compared with combustible cigarette smokers (CS) and non-smokers (NS).

Aims: To evaluate differences in inflammatory, oxidative stress, endothelial dysfunction, coagulation, and hematological biomarkers between EC users, CS, and NS.

Methods: MEDLINE, Embase, Web of Science, Scopus, and PubMed were searched from inception to April 2026. Observational and interventional studies assessing biomarkers of potential harm in EC users were included. Random-effects meta-analyses using restricted maximum likelihood models were performed to calculate standardized mean differences (SMDs) with 95% confidence intervals (CI). Risk of bias was assessed using the Newcastle–Ottawa Scale, and certainty of evidence was evaluated using GRADE.

Results: Thirty-eight studies met the inclusion criteria. Compared with CS, EC users demonstrated significantly lower levels of CRP (SMD: -0.20, 95% CI: -0.39 to -0.01), fibrinogen (-0.25, -0.48 to -0.02), cICAM-1 (-0.61, -0.94 to -0.28), MCP-1 (-1.55, -2.00 to -1.10), MMP-9 (-0.59, -0.94 to -0.24), TNF- α (-1.63, -2.76 to -0.49), and WBC count (-0.36, -0.65 to -0.08). Compared with NS, EC users had significantly higher 8-isoprostane (0.50, 0.25 to 0.74), IL-1 β (1.20, 0.33 to 2.07), and malondialdehyde levels (1.01, 0.27 to 1.75). Most other biomarkers showed no significant differences. Substantial heterogeneity was observed across several analyses, and certainty of evidence was generally very low.

Conclusions: E-cigarette use was associated with lower levels of several inflammatory, endothelial, and oxidative stress biomarkers compared with combustible smoking, but persistent inflammatory and oxidative alterations compared with non-smokers. These findings support a potential harm-reduction profile relative to smoking while highlighting that vaping is not biologically inert.



Chemical Composition and Analytical Methods in Emerging Tobacco and Nicotine Products: A Systematic Review to support implementation of WHO FCTC Articles 9 and 10

D. Walia¹, S. GOEL¹, M. Chopra¹, C. Goel¹

¹Post Graduate Institute of Medical Education and Research (PGIMER) Chandigarh, India

Introduction: Emerging Tobacco nicotine products, particularly electronic cigarettes, heated tobacco products and nicotine pouches, exhibit substantial variability in chemical composition and lack standardised assessment frameworks. Evidence on their constituents remains fragmented across product types and analytical methods, limiting comparability and regulatory application under World Health Organization Framework Convention on Tobacco Control Articles 9 and 10, which address regulation of tobacco product contents, emissions, and disclosure. This systematic review aimed to synthesise available evidence on chemical constituents and measurement approaches in emerging nicotine products.

Aims: This systematic review aimed to characterise chemical constituents across emerging tobacco and nicotine product categories to support implementation of testing, disclosure, and regulation under World Health Organisation Framework Convention on Tobacco Control Articles 9 and 10.

Methods: The review was registered with PROSPERO (CRD42024611713) and conducted per PRISMA 2020 guidelines. Searches across PubMed, Scopus, and Web of Science were screened for original laboratory analyses of emerging tobacco and nicotine products. Data on constituents identification, quantification, and analytical methods were extracted and compiled into a structured chemical-constituent database covering 69 studies and over 500 test entries across six product subcategories.

Results: E-cigarette aerosols (n=215 tests) contained carbonyls including formaldehyde and acetone, toxic metals including tin and nickel, VOCs such as 1,3-butadiene and toluene, PAHs, TSNAs including NNN, and flavourants including glycerin and n-valeric acid. HTPs (n=38) yielded carbonyls, PAHs including naphthalene and benzo[a]pyrene, aromatic amines including 4-aminobiphenyl, and radioactive Lead-210. Pod systems such as JUUL (n=36) showed elevated metals including chromium, nickel, and cadmium alongside aldehydes and flavourants. E-liquids (n=175) demonstrated the widest chemical diversity, encompassing flavours, alkaloids, PAHs, metals, TSNAs, and cooling agents. Waterpipes (n=18) delivered acrolein, carbon monoxide, and nicotine vapour. Nicotine pouches (n=10), though tobacco-free, contained measurable TSNAs including NNK and NNN alongside free-base nicotine.

Conclusion: This review establishes the first systematic cross-category chemical database for emerging nicotine products, revealing substantial toxicant diversity and significant regulatory gaps. Findings provide actionable evidence to strengthen product testing mandates, disclosure requirements, and international standards under WHO FCTC Articles 9 and 10.



Quantifying health risks from aldehydes in vaping emissions: a margin-of-exposure approach comparing electronic cigarettes with smoked tobacco

T. Mansuy¹, C. Leroux¹, C. Neto¹, J. Achille¹, B. Labarbe¹

¹Risk Assessment Department, Anses, Maisons-Alfort, France

Background

Electronic cigarettes emit fewer combustion-related toxicants than smoked tobacco, but their aerosols contain reactive carbonyl compounds, including aldehydes formed during thermal degradation of propylene glycol, glycerol and flavouring ingredients. Quantitative evidence is needed to distinguish reduced exposure from reduced health risk.

Methods

We developed a quantitative health risk assessment framework for vaping products, illustrated using six aldehydes selected on the basis of hazard category, known formation mechanisms and availability in composition or emission datasets: formaldehyde, acetaldehyde, acrolein, propionaldehyde, glyoxal and furfural. Toxicological points of departure were derived from national and international assessments and adjusted for human inhalation exposure. Exposure scenarios used aldehyde concentrations from regulatory declarations, experimental measurements and the published literature, combined with vaping behaviour data. Risk was characterised using margins of exposure (MoE), interpreted against substance-specific reference values. Deterministic scenarios were complemented by a semi-probabilistic model integrating variability in emission concentrations and daily consumption. Results were compared with conventional cigarette smoking.

Results

In deterministic vaping scenarios, risk could generally not be excluded, except for acetaldehyde under the mean scenario. In the semi-probabilistic model, the probability of critical exposure among vapers was estimated at 13% for formaldehyde, 5% for acetaldehyde, 17% for acrolein, 18% for furfural, and close to 100% for propionaldehyde and glyoxal, although these latter estimates were strongly affected by toxicological and emission-data uncertainties. For smoked cigarettes, risk could not be excluded in nearly all modelled situations: 85% for formaldehyde and 100% for the other aldehydes. Compared with smoking, vaping reduced aldehyde concentrations in emissions by approximately 80% to almost 100%; however, reductions in the probability of critical exposure were not proportional, particularly for propionaldehyde and glyoxal.

Conclusion

This assessment provides a transferable framework for quantifying chemical risks from vaping emissions and shows that lower emissions do not automatically translate into proportionally lower health risk. For aldehydes, vaping appears substantially less concerning than smoking, but is not risk-free for all substances or all users. Future assessments should broaden the chemical scope to metals, volatile organic compounds, nitrosamines and flavour degradation products, while improving standardisation of emissions testing and exposure characterisation.



Comparative Emissions Analyses of Electronic Cigarettes and Combustible Tobacco Products Using a Universal Smoking Machine Adaptor

A. El Hellani¹, C. Wilson¹, C. Wu¹, A. Thomas¹, L. Sweeney¹, C. Fleshman¹, A. Hinton¹, M. Brinkman¹

¹The Ohio State University, United States

Background. Testing tobacco product emissions is important for regulatory submissions and the development of novel reduced-risk tobacco products. Critical equipment for reliable smoke/aerosol generation and collection are leak-tight adaptors that connect product mouth ends to the smoking/vaping machine ports. Standard adaptors are limited in the product geometries they can seal to, and one-off, 3D printed solutions are not reproducible. We used a patented universal smoking machine adaptor (USMA) to help standardize comparative emissions analyses within and across tobacco product categories.

Methods. Using the USMA, we compared mainstream machine smoking yields from e-cigarettes (n=7), cigarettes (n=2), and cigars/cigarillos (n=3). We quantified total particulate matter (TPM), nicotine, acetaldehyde, acrolein, and particle size, number, and mass in 10 replicates per product. E-cigarettes were vaped for 15 puffs while combustibles were smoked to the butt termination mark. Puffing regimens for machine vaping and smoking were adopted from CORESTA recommended methods.

Results. E-cigarette yields show wide ranges in TPM (23-128 mg/tp), particle numbers (42-363x10⁶/cm³), nicotine (1.1-5.3 mg/tp), acetaldehyde (0.5-2 µg/tp), and acrolein (0.02-0.27 µg/tp). Compared to combustibles, e-cigarettes emit the same level of nicotine as cigarettes (2.1 mg/tp) and cigarillos (1.9-2.5 mg/tp), while emitting significantly less acetaldehyde and acrolein compared to cigarettes (1340 µg/tp and 115 µg/tp) and cigars/cigarillos (670-878 and 21.4-25.4 µg/tp).

Conclusion. Standardized, head-to-head comparison of harmful and potentially harmful constituent emissions across tobacco products and product types is critical for harm reduction analyses and regulatory submissions. Although the USMA can seal to a wide variety of products, a collaborative interlaboratory study featuring the USMA is needed to truly standardize a multi-tobacco-product-type emissions testing method.



Lessons from investing in “Swap to stop” and stop smoking services in England

10:00 - 10:15

Impact of increased funding for Stop Smoking Services in England on quit attempts: population-based study

V. Buss^{1,2}, L. Shahab^{1,2}, L. Bauld^{2,3}, S. Michie^{1,2}, J. Brown^{1,2}¹University College London, United Kingdom²Behavioural Research UK, United Kingdom³University of Edinburgh, United Kingdom

Background: The UK Government aims to reduce smoking rates by implementing new, and investing in existing, tobacco control strategies including increased funding for Stop Smoking Services in England (by adding a further £70 million per year, bringing the total to £138 million per financial year). This study examined whether the additional funding starting in April 2024 (start of financial year 2024/2025) was associated with a detectable increase in quit attempts supported by Stop Smoking Services and whether it was cost-effective.

Methods: We used data from the Smoking Toolkit Study, a repeat cross-sectional survey conducted in 2021 to 2025. Adults aged ≥ 18 years who smoked cigarettes and had made a quit attempt in the past year were included (weighted $n=5,076$). The outcome was monthly prevalence of past-year quit attempts supported by Stop Smoking Services. We fitted general additive models with a step change in April 2024 to represent the start of the increased funding. We adjusted for tobacco tax increases, the Swap-to-Stop scheme, age, gender, and a measure of socioeconomic position. In an unplanned analysis, we extended the time series back to 2006. For the cost-effectiveness, we estimated incremental cost-effectiveness ratios for the total population and age groups, accounting for future lifetime cessation.

Results: In the primary model, the April 2024 step change was not statistically significant (adjusted odds ratio: 1.13; 95% CI: 0.52, 2.49). The cost-effectiveness analysis ranged from cost-effective to extremely ineffective (incremental cost-effectiveness ratio (ICER): £104,126, 95% CI: £939,398 to £8,293). When using the extended time series, the adjusted odds ratio for the step change was 2.70 (95% CI: 2.03, 3.60) and the intervention was cost-effective (ICER: £13,857; £21,393 to £9,620).

Conclusions: Compared with the long-term trend, increased funding to Stop Smoking Services in England in 2024 appeared to lead to an increase in quit attempts supported by Stop Smoking Services at the population level. This result is somewhat uncertain because our primary pre-planned analyses assessing the impact relative to a more recent trend were insensitive.



Evaluating the 'Swap to Stop' initiative to provide free nicotine vapes for smoking cessation: a qualitative analysis of commissioners, staff and service users' perspectives and experiences

K. Sawyer^{1,2}, S. Jennings², J. Jiang², M. Skumlien^{1,3}, J. De Oliveira⁴, E. Simonavičius⁵, H. Walsh^{1,2}, A. McNeill^{1,2}, L. Brose^{1,2}

¹National Institute of Health and Care Research (NIHR) Policy Research Unit (PRU) in Addictions, United Kingdom

²Department of Addictions, Institute of Psychiatry, Psychology & Neuroscience, King's College London, London, United Kingdom

³Social, Genetic & Developmental Psychiatry Centre, Institute of Psychiatry, Psychology & Neuroscience, King's College London, London, United Kingdom

⁴University of Bristol, United Kingdom

⁵European Union Drugs Agency (EUDA), Lisbon, Portugal

Background: This qualitative study aims to explore perceptions and experiences of the implementation and uptake of the Swap to Stop Scheme, an initiative which provides free nicotine vapes to support smoking cessation. This is important for understanding the contextual factors, acceptability, and real-world complexities that shaped how Swap to Stop was delivered and engaged with.

Methods: Seventy-three people: 19 service users, 35 staff (12 of whom were receiving vapes as part of the scheme) and 19 commissioners, took part in semi-structured interviews. Service users and staff were from a range of settings reflecting priority groups, including maternity, substance use, deprivation and homelessness, mental health and physical health. Analyses used qualitative framework analysis, supported by iterative categorisation and guided by the Consolidated Framework for Implementation Research (CFIR). The Policy Research Unit's Patient and Public Involvement Network, a group of people with lived experience of substance use and addictive behaviours, were involved in developing the interview topic guide and analysis.

Results: Although Swap to Stop was introduced primarily as a procurement mechanism to supply vapes, staff and service users described access to free vapes as part of a wider experience of smoking cessation care. Priority population services were viewed as valuable settings for delivery and enabled the intervention to reach groups with higher smoking prevalence. Most participants considered vaping less harmful than smoking, although some expressed concerns about the lack of long-term evidence, highlighting the importance of addressing misperceptions. Implementation was perceived to be more successful where organisations already supported smoke-free or harm-reduction approaches and where consistent staff training was provided. Barriers included the absence of a national communication campaign, existing supplier contracts, and the short timeframe between programme announcement and rollout.

Conclusions: Swap to Stop was generally well received, with positive experiences and outcomes reported by participant groups; however, important implementation challenges were identified.



Awareness and use of a free vapes scheme for smoking cessation in England: Findings from the 2024 ITC 4 Country Smoking and Vaping Survey

M. Skumlien¹, K. East², E. Simonavičius¹, A. Hyland³, G. Fong⁴, G. Li⁴, A. Quah⁴, C. Boudreau⁵, A. McNeill¹, L. Brose¹

¹National Institute of Health and Care Research (NIHR) Policy Research Unit in Addictions, United Kingdom

²Department of Primary Care and Public Health, Brighton and Sussex Medical School, University of Brighton and University of Sussex, United Kingdom

³Roswell Park Comprehensive Cancer Centre, University of Buffalo, United States

⁴Department of Psychology, University of Waterloo, Canada

⁵Department of Statistics and Actuarial Science, University of Waterloo, Canada

Background: England's 'Swap to Stop' scheme provides local authorities with free vape starter kits for adults who smoke.

Aims: This study aimed to evaluate the reach, uptake, and correlates of engagement with Swap to Stop within the first year after the start of implementation.

Methods: Our sample were adults (n=2009) who currently smoke or recently stopped smoking from the England arm of the 2024 International Tobacco Control Four Country Smoking and Vaping Survey. We calculated weighted proportions for Swap to Stop awareness, offer, interest, and participation, and reasons for no interest/participation. We performed weighted binary logistic regressions to explore associations between sociodemographics, health, smoking cessation attempts, and vaping status and Swap to Stop awareness, offer, and interest/participation, and whether interest/participation was associated with vaping harm perceptions.

Results: Overall, 11.0% had heard of Swap to Stop, of whom 43.6% were offered participation. Among those offered, 63.2% had participated; among those not offered, 55.1% were interested. The most common reasons for no interest/participation were not being interested in vapes (60.7%) and believing them to be unsafe (57.5%) or no less harmful than smoking (56.6%). Awareness was higher among non-White than White participants (AOR=1.86), those with high (AOR=1.78) and medium (AOR=1.89) than lower incomes, and those who did than did not currently vape (AOR=3.44), and lower among women than men (AOR=0.57) and those aged ≥40 years than those aged ≤24 years (AOR=0.28). Offer of participation was also lower among those aged ≥40 years (AOR=0.06). Interest/participation was more likely among people with prior smoking cessation attempts than those without prior cessation attempts (AOR=2.52) and among people who were current vaping than not currently vaping (AOR=4.50), and less likely among women than men (AOR=0.32). Interest/participation was associated with perceiving vaping as less harmful than smoking (AOR=2.61).

Conclusion: Within its first year, awareness of Swap to Stop was limited, though there was substantial uptake and interest in the scheme. Awareness may have been higher in areas that adopted the scheme early and will likely increase with maturation. Targeted outreach and communication on the relative harms of vaping versus smoking is key to maximising public health impact.



A national initiative to provide free vapes for smoking cessation: analysis of routinely collected stop smoking service client data

K. Soar¹, L. Brose²

¹KCL, United Kingdom

²Kings College London, United Kingdom

Background: Starting in 2024, the English government's Swap to Stop initiative provides vapes at no cost to local authorities (LA) to offer to individuals who smoke, coupled with behavioural support and not requiring the setting of a quit date. LA implemented the scheme in various settings targeting locally defined priority populations. This study aimed to assess: 1) short-term smoking cessation by support type; 2) for Swap to Stop clients, variation of abstinence by socio-demographics.

Methods: Client episode level data from 23 LA that recorded client outcomes on Quit Manager (data collection, management and reporting system) were extracted for April 2023 to May 2025. We used generalised estimating equations to assess associations between 4-week smoking cessation and 1) type of support (yes/no each for vapes, nicotine replacement therapy (NRT), other prescription medication) for n=74,370 episodes while adjusting for socio-demographics age, gender, ethnicity, occupation, area deprivation and cigarettes per day (CPD); and 2) socio-demographics and NRT use within the n=5,666 episodes using a Swap to Stop vape.

Results: Among those with none of the support types, 14.3% achieved cessation. Episodes using Swap to Stop or other vapes (cessation rate: 51.8%, Adjusted OR, 95% CI: 1.69, 1.63 – 1.76), NRT (51.8%, 2.74 (2.64 - 2.84), other prescription medication (52.6%, 2.46, 2.22 – 2.73) were more likely to achieve cessation than episodes not using each type of support. Cessation was more likely for Swap to Stop clients aged 45-59 (1.36, 1.16-1.59) or 60+ (1.31, 1.10-1.56) versus 18-34 and those also using NRT (1.77, 1.59-1.98). Cessation was less likely for clients who had never worked or were long-term unemployed (0.73, 0.61-0.88), sick/disabled and unable to work (0.64, 0.53-0.77) or had other/unknown occupations (0.76, 0.63-0.93) compared with intermediate/managerial /professional occupations, and for clients from other/unknown ethnicities (0.68, 0.54-0.86) and those smoking 11-20 CPD (0.84, 0.71-0.99). 21+ CPD (0.75, 0.63-0.90) or unknown (0.84, 0.72-0.98) versus <11. Gender and area deprivation were not significantly associated with cessation.

Conclusions: In smoking cessation service monitoring data, use of vapes, NRT or prescription medication was associated with increased success. Success associated with free vapes varied with socio-demographic characteristics.



Cost-effectiveness of the 'Swap to Stop' initiative: A health economic modelling study of a national free vape scheme in England

D. Gillespie¹, E. Moore¹, L. Brose²

¹The University of Sheffield, United Kingdom

²King's College London, United Kingdom

Background

England's 'Swap to Stop' programme is a national government-funded initiative designed to reduce smoking prevalence by providing free nicotine vape kits and behavioural support to adults who smoke tobacco. To ensure the sustainability and scalability of the programme, it is essential to understand its economic impact. This study aims to evaluate the cost-effectiveness of Swap to Stop by estimating the incremental health benefits and potential cost savings associated with the scheme.

Methods

We are developing a health economic model stratified at the local authority (LA) level to estimate the long-term impacts of the initiative. The model will take into account the different pathways through which Swap to Stop is delivered. The cost component will include the product cost of the e-cigarettes combined with additional service delivery costs. Modelled outcomes will include incremental benefits in terms of successful 4-week quits, health outcomes (e.g., prevented hospital admissions and associated healthcare costs), and mortality gains (e.g., reductions in years of life lost). Total health impact will be expressed in Quality-Adjusted Life Years (QALYs).

Results

The model will provide evidence on the potential effectiveness and cost-effectiveness of the scheme, including how these outcomes may vary when targeting different subgroups or using various delivery routes. We will present estimated incremental benefit ratios and explore the sensitivity of these results to different implementation contexts at the local authority level. These findings will help clarify the conditions under which the scheme may offer the most significant public health and economic returns.

Conclusion

By estimating projected gains in population health and potential healthcare cost savings, the findings will indicate whether the scheme might represent a value-for-money approach to national smoking cessation. These results will be used to consider the potential for future investment in such schemes and to help identify delivery strategies that may optimise public health impact.

Advancing understanding of youth use of tobacco/nicotine products and of youth-focused interventions

10:00 - 10:15

Trends in nicotine use, dependence, and cessation interest: Findings from the International Tobacco Control (ITC) Youth Surveys

D. Hammond¹¹University of Waterloo, Canada

BACKGROUND

Youth and young adulthood are critical periods for tobacco use, including initiation and transitions to long-term use. In most high-income countries, combustible cigarette use among young people continues to decline; however, nicotine consumption has shifted toward an array of novel products.

AIMS

This presentation has three primary aims: 1) to summarize trends in nicotine use among young people; 2) to compare indicators of dependence between smoking, vaping and oral nicotine products at the population-level; and 3) to examine measures of cessation, including intentions, attempts, and methods for quitting smoking, vaping, and oral nicotine products.

METHODS

Data will be presented from the ITC Youth Tobacco & Vaping Surveys, a series of repeat-cross sectional national surveys conducted in Canada, the US, and England. Data are presented from 11 survey waves conducted between 2017 and 2025 with 147,915 youth aged 16 to 19. Differences over time and between countries were tested using weighted regression models.

RESULTS

The prevalence of smoking has declined in all three countries, although to a lesser extent in England. Youth vaping increased at a similar rate across countries between 2017 and 2020, followed by declines in the US and Canada, and further increases in England. Use of nicotine pouches increased after 2023 in all three countries. Overall, the prevalence of 'any' nicotine use has remained stable in the US and Canada, and has increased in England since 2017. the Vaping dependence has increased over time to similar levels as smoking; approximately half of youth who vape have tried to quit vaping and one third plan to quit in the next 6 months. Reasons and methods for quitting will be presented, along with dependence and cessation indicators for nicotine pouches.

CONCLUSION

Nicotine consumption has shifted to non-combusted products, with different trends across the US, Canada, and England. Indicators of dependence and efforts to quit have increased along with changes in product design over the past decade. The extent to which nicotine pouches follow a similar trajectory as vaping among young people remains unclear. Policy implications will be discussed.



Entrapment or liberation? Young people's perspectives on regulating oral nicotine pouches in Aotearoa New Zealand

J. Hoek¹, J. Fisher¹, A. Fitton¹

¹University of Otago, New Zealand

Background: Use of oral nicotine pouches (ONPs) has grown rapidly in response to widespread social media marketing. While viewed by some as potential harm-reduction tools, concerns ONPs may appeal to young people and maintain rather than end nicotine dependence have prompted debate. Young people's voices are typically absent from policy debates, even though they are often the population group most affected by the emergence of new nicotine products.

Aim: To explore how young people in Aotearoa New Zealand perceive ONPs in relation to harm reduction and addiction, and to examine their views on appropriate regulatory approaches.

Methods: We conducted an exploratory qualitative study using semi-structured interviews with 25 participants aged 16–25 years. Interviews were conducted in person or online and analysed using reflexive thematic analysis. We sampled participants purposively to reflect diverse nicotine product use experiences.

Results: Participants felt ambivalent about ONPs and undertook a nuanced assessment of potential benefits for smoking or vaping cessation against risks of increased uptake and sustained addiction. Their lived experiences of nicotine dependence promoted scepticism among several, who thought ONPs would perpetuate a “cycle” of addiction rather than resolve it. Participants recognised their lack of agency in a marketplace where powerful corporations used product aesthetics, such as branding and flavours, to attract them and expand nicotine use. They thus viewed ONPs as designed to deliver profit rather than health benefits and, if ONPs were introduced, argued they should be regulated as therapeutic goods rather than as consumer products. Specific measures they suggested included limiting access by allowing pharmacy-only sales, restricting flavours, standardising packaging, introducing higher age thresholds, and limiting nicotine content.

Conclusion: Young people want interventions that will help them stop vaping and some hoped ONPs could fill that role; however, they anticipated increased uptake among young people and thought nicotine dependence would continue. They called for regulation that reframed novel nicotine products as therapeutic tools rather than consumer goods, and prioritised long-term wellbeing over corporate profits.



Co-use of tobacco and cannabis products among adolescents and young adults in a vaping cessation randomized clinical trial

P. Ling¹, J.C. Lyu², K. Llanes³, N. Lisha¹

¹University of California San Francisco, United States

²University of Oklahoma Health Sciences Center, United States

³University of Texas at El Paso, United States

Background: Co-use of multiple tobacco and nicotine products and of tobacco and cannabis is common and increasing among young adults as the product landscape expands. While tobacco cessation programs for young adults have begun to address e-cigarette use (vaping) few cessation programs address co-use.

Aim: We describe the frequency of co-use among participants in an RCT of an intervention to support nicotine vaping cessation using support groups on social media, and the impact of the intervention on co-use.

Methods: Participants (N=500) who were English literate, age 13-21 years, using social media at least 4 days per week, using e-cigarettes at least weekly, considering quitting within the next 6 months, and residing in California were recruited via social media advertisements in 2022. Participants reported past-7 day use of little cigars/cigarillos, spit tobacco, hookah, nicotine pouches, and past-30 day use of cigarettes and cannabis products at baseline and at follow up over 6 months. Generalized linear mixed models (GLMM) in a time-averaged difference examined 7-day point prevalence abstinence of use of any non-cigarette tobacco product, cigarette smoking, and cannabis use, accounting for repeated measures and clustering effects.

Results: Mean age was 18.9 years; 39.8% identified as female, 51.2% as male, and 9% as another gender; 41.1% identified as White, 1% Native American, 3.9% Black, 7.2 Asian/PI, 17.2 Hispanic, and 27.4% multiple race/ethnicity; 35.1% identified with a minoritized sexual orientation group. Overall, 30.1% of participants co-used other tobacco products in addition to vaping nicotine at baseline (11.0% little cigar, 3.8% spit tobacco, 4.6% hookah, 9.4% nicotine pouches). In addition, 42.9% reported smoking cigarettes and 77.2% used a cannabis vaporizer in the past 30 days. Use of any non-cigarette tobacco product and cigarette smoking decreased over 6 months, but there was no difference between intervention and control groups. Cannabis vaping did not change significantly over the 6 months.

Conclusion: Co-use of multiple nicotine products and cannabis is common among people who use e-cigarettes. Decreases in other tobacco product use accompany e-cigarette cessation, but enhanced approaches are needed to support tobacco and cannabis co-use cessation.



Development of a behavioral intervention for e-cigarette cessation among youth and addressing co-use of cannabis and other tobacco

S. krishnan-sarin¹, G. Kong¹, K. Bold¹, M. Gordon¹, T. Frankforter¹

¹Yale university, United States

Background: Epidemiological evidence suggests that most youth who use e-cigarettes want to quit but do not have the resources or knowledge to support such quit efforts.

Aim: We describe the development and testing of a youth-focused smartphone app designed to teach Cognitive Behavioral Therapy (CBT) skills to help youth stop using e-cigarettes and discuss the importance of addressing cannabis and other tobacco use.

Methods: Focus groups with youth who used e-cigarettes (n=60) were used to develop a youth-focused manualized CBT intervention for e-cigarette cessation. Qualitative iterative feedback from youth (n=14) who used e-cigarettes was used to adapt the CBT content into a media-rich app format called Kick-Nic!©. Initial testing with 1) youth (n=15) who had experience with an in-person CBT e-cigarette intervention examined preference for in-person vs app modalities, and 2) an 8-week open-label trial with youth (n=20) interested in quitting e-cigarettes examined initial feasibility/efficacy of the app. An ongoing RCT examining the efficacy of the app will be described.

Results: The Kick-Nic!© app uses seven modules to address coping with cravings/withdrawal, e-cigarette use refusal, mood management, decision making, and coping with lapses through a) educational narrations by moderators, b) peer role-modeling videos, c) reinforcing learning through quizzes, interactive exercises, personalized quit plans and vape-free calendars. Considering the high rates of co-use of cannabis and other tobacco products in this population, Kick-Nic!© includes modules on the negative impact of cigarette and cannabis use, including on e-cigarette cessation, and provides cessation options. Initial findings suggest that youth liked the video vignettes, personalized components and module content/lengths, but did not have a clear preference for modalities (6 liked in-person, 6 liked the app, 3 liked both equally). The open label trial observed 100% completion rates, with 70% (14/20) youth completing all 7 app sessions, and 35% (7/20) reporting abstinence in the last week. Initial findings from the ongoing RCT on e-cigarette/cannabis/other tobacco use profiles will be discussed.

Conclusion: There is a critical need for behavioral interventions to help youth quit e-cigarette use, and incorporating cannabis and tobacco use within these interventions is essential to address common co-use of these products.



Mental Health and Tobacco/Nicotine Use: Risk Factors, Patterns, and Cessation

12:00 - 12:15

Preferences and perceptions of various forms of smoking cessation support among people experiencing serious mental illness: A scoping review

G. Lai¹, T. Kaushal¹, M. Lawler², C. Puljevic¹, C. Gartner¹¹NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame, School of Public Health, The University of Queensland, Australia²Faculty of Health, Medicine and Behavioural Sciences, The University of Queensland, Australia

Background: Despite the availability of evidence-based smoking cessation interventions and demonstrated effectiveness for the general population, there is no 'one-size-fits-all' approach to smoking cessation. People who experience serious mental illness face complex challenges to smoking cessation and a tailored treatment approach may be necessary.

Aim: To synthesise existing literature on the preferences and perceptions of various forms of cessation support among people experiencing serious mental illness.

Methods: Using the JBI Scoping Review Methodology, we searched five databases (PubMed, CINAHL, Cochrane Central Register of Controlled Trials, Web of Science and Embase) for peer-reviewed literature that described the smoking cessation preferences of adults aged 18 years and older experiencing SMI. Study participants' diagnoses had to include at least one SMI (e.g., major depressive disorder, schizophrenia, or bipolar disorder) for the study to be included. Cessation preferences included participants' reported acceptability of and/or beliefs on the helpfulness or effectiveness of any kind of tobacco cessation support or preferred features of tobacco cessation treatment.

Results: We included 47 studies. These studies investigated perceptions of nicotine replacement therapy (NRT; n=23), counselling services (n=20), cessation advice or printed material (n=16), mobile or web-based interventions (n=12), peer/social support (n=10), prescription medications (n=10), e-cigarettes (n=8), and alternative methods (n=5). Peer/social support and mobile or web-based interventions were the most consistently acceptable forms of cessation support among study participants. Several studies highlighted the potentially supportive role of cessation aids with tactile characteristics (e.g., NRT inhalers, e-cigarettes).

Conclusion: Our findings highlight the potential benefits of promoting social and digital forms of smoking cessation support among people with serious mental illness. Additionally, a multi-pronged treatment approach incorporating various forms of cessation support may increase overall treatment acceptability. Future research should investigate the integration of social support and potential use of sensory modulation techniques in smoking cessation treatments for this population.

Implications: Understanding smoking cessation preferences among people with serious mental illness is important for developing tailored cessation treatments to enhance uptake, acceptability, efficiency, and effectiveness of smoking cessation treatment.



Childhood Sexual Violence and Adult Smoking: Data from a large French study

A. Mouchidi^{1,2}, F. El-Khoury^{1,3}

¹Social Epidemiology, Mental Health, and Addictions (ESSMA), France

²Sorbonne university, France

³INSERM, France

Background.

While Childhood sexual violence (CSV) is recognized as a risk factor for various mental health outcomes, its association with substance use such as tobacco consumption in adulthood remains poorly documented.

Aims.

The aim of this study is to examine the association between CSV and cigarette smoking in adulthood.

Materials and Methods.

Data were drawn from the French Constances cohort. Exposure to CSV was assessed with three items: (1) unwanted sexual touching, (2) coerced sexual contact, and (3) forced intercourse. A composite variable was created to distinguish exposure by violence type. To investigate the association between CSV and tobacco use, multinomial regression analyses were performed at baseline, using two outcome variables: smoking status (current smoker, non-smoker, ex-smoker) and daily cigarette consumption among current smokers. All models were adjusted for sociodemographic covariates, and analyses were stratified by sex.

Results.

Among participants with complete data on exposure and outcomes, 109,488 were included in the analysis. Overall, 17% of women and 6% of men reported CSV. Among all participants, 15% were current smokers, of whom 90% reported smoking more than one cigarette per day.. After adjustment for sociodemographic factors, exposure to CSV was significantly associated with smoking status, with increased odds among ex-smokers (OR = 1.73 [1.57–1.92]) and current smokers (OR = 2.04 [1.82–2.29]) compared to never smokers. Exposure to both forced intercourse and sexual assault was additionally associated with the highest odds of smoking more than one cigarette per day (women: OR = 2.49 [1.58–4.10]; men: OR = 3.65 [1.36–14.90]).

Conclusion.

These findings suggest that exposure to CSV is significantly associated with tobacco use in adulthood. Early identification of CSV may represent an important opportunity for targeted smoking prevention and cessation interventions.

Key-words : childhood Sexual violence, Tobacco, substance use, Sexual abuse, epidemiology, smoking.

Tobacco Use and Psychological Distress Among LGBTQ+ U.S. Adults

A. Blankenau¹, E. Hackworth¹, M. Ertl¹, A. Ajayi¹

¹University of Minnesota, United States

Background:

LGBTQ+ populations use tobacco at higher rates and report a greater mental health burden, but most studies fail to collect granular data on diverse sexual orientations to understand variability within the LGBTQ+ community. This study evaluated tobacco use and mental health among a diverse sample of LGBTQ+ adults in the U.S.

Aims:

Given the evolving landscape of products, we assessed prevalence of tobacco use in a large sample of LGBTQ+ U.S. adults. To disaggregate LGBTQ+ identities, we examined prevalence rates of specific groups to identify highest risk.

Methods:

We recruited U.S. adults via Prolific, an online survey platform. Participants indicated their past-month use of tobacco products (cigarettes, e-cigarettes, nicotine pouches, other non-combusted products, and other combusted products). Participants indicated their gender identity: cisgender man, cisgender woman, transgender man, transgender woman, gender nonconforming, or other identities; as well as sexual orientation: gay/lesbian, bisexual, pansexual, queer, and other orientations. Psychological distress was measured using the Depression, Anxiety, and Stress Scale (DASS-8; Ali et al., 2021). Odds ratios and 95% confidence intervals (CI) were estimated using logistic regression models.

Results:

In the full sample (n=1443), 35% reported any past-month tobacco use, 20% cigarette use, 24% e-cigarette use, and 5% nicotine pouch use. Approximately 50% reported moderate/severe depression, and 42% reported moderate/severe anxiety. Past month use of any tobacco product, cigarettes, and e-cigarettes was positively associated with psychological distress ($p<.05$), while nicotine pouch use was not significantly associated with distress. In terms of sexual orientation, bisexual participants had the highest risk of any tobacco use (OR=1.32, 95% CI=1.00-1.75), e-cigarette use (OR=1.69, 95% CI=1.23-2.33), and dual use of cigarettes/e-cigarettes (OR=1.62, 95% CI=1.07-2.44). Gender identity was not significantly associated with use of any tobacco product, cigarette use, or dual use. Transgender men had the highest risk of e-cigarette use (OR=2.18, 95% CI=1.19-4.00). Cisgender women (OR=0.41, 95% CI=0.24-0.71) had the lowest risk of nicotine pouch use.

Conclusion:

Bisexual adults and transgender men had the highest risk for tobacco use. All products were associated with distress except nicotine pouches. Interventions should target specific groups, address contextual factors related to use, and promote cessation to improve mental health.



Psychological Distress and Tobacco/Nicotine Use Patterns Among US Adolescents: Cross-Sectional Evidence from the National Youth Tobacco Survey 2023–2025

S. Fan¹, F. Filippidis¹, C. Kyriakos²

¹Imperial College London, United Kingdom

²Yale School of Medicine, United States

Background

Psychological distress has been linked to tobacco and nicotine use among adolescents. However, evidence on whether distress severity is differentially associated with specific product use patterns, including newer products such as oral nicotine pouches (ONP) and poly-use is limited.

Aims

This study aimed to examine the association between psychological distress and tobacco/nicotine use patterns among US adolescents.

Methods

Pooled data from the U.S. National Youth Tobacco Survey (NYTS) 2023–2025 (N=75,560; ages 9–19) were analysed using survey-weighted multinomial logistic regression with multiple imputation. Psychological distress was measured using the Patient Health Questionnaire-4 (PHQ-4) (normal 0–2, mild 3–5, moderate 6–8, severe 9–12). The primary outcome was current tobacco/nicotine use pattern, categorised into six mutually exclusive groups: no use (reference), cigarette-only, e-cigarette-only, ONP-only, other tobacco-only, and poly-use (≥ 2 products). Models were adjusted for age, sex, race/ethnicity, school type, home language, academic performance, household tobacco use, any current cannabis-related substance vaping, and survey year.

Results

Compared to normal psychological distress, moderate (OR=1.37, 95% CI: 1.13–1.67) and severe (OR=1.66, 95% CI: 1.32–2.08) distress levels were associated with e-cigarette-only use. Severe distress was associated with cigarette-only use (OR=1.93, 95% CI: 1.02–3.67). Moderate and severe distress were associated with poly-use (OR=1.50, 95% CI: 1.16–1.94 and OR=1.62, 95% CI: 1.22–2.13, respectively). No significant associations were found for ONP-only or other tobacco-only use.

Conclusion

Psychological distress appears to be an important correlate of adolescent nicotine and tobacco use patterns, particularly for e-cigarette use (the most used product in this population), as well as cigarette and poly-use. While no association was observed for ONP-only use, continued monitoring is warranted as these products increase in popularity. These cross-sectional findings highlight the importance of integrating mental health into efforts to reduce tobacco and nicotine use among adolescents.

Keywords

nicotine products; tobacco use; adolescents; depression and anxiety symptoms



The longitudinal relationship between e-cigarette use and mental health outcomes: a systematic review and meta-analysis.

S. Jia^{1,2}, C. Burke², O. Bastiani², A. Wu³, S. Braznell¹, A. Farley⁴, K. Thomas², G. Taylor^{1,2}

¹University of Bath, United Kingdom

²University of Bristol, United Kingdom

³University of Oxford, United Kingdom

⁴University of Birmingham, United Kingdom

Background

Electronic cigarette (e-cigarette) use has increased rapidly. Whilst research indicates that e-cigarettes are less harmful than cigarettes and useful for smoking cessation, concerns remain about their potential impact on mental health. Cross-sectional studies report associations between e-cigarette use and increased risk of adverse mental health outcomes, but longitudinal evidence remains unclear.

Methods

We conducted a systematic review and meta-analysis of longitudinal evidence on e-cigarette use and mental health outcomes in the general population (CRD42024629327). 6 electronic databases were searched from inception until February 2025. We included studies that reported associations between e-cigarette use and two primary outcome domains (grouped post search): internalising problems (e.g. anxiety) and externalising problems (e.g. ADHD). Effect estimates were transformed to standardised regression coefficients (β) or risk ratios (RR) and pooled using random-effects meta-analysis. Bias was assessed using the ROBINS-E tool. Certainty of evidence was assessed using GRADE for non-randomised studies.

Results

Twenty-one studies were included, with 12 ($n = 103,446$) contributing to meta-analyses. Compared to non-use, e-cigarette use was not associated with change in subsequent internalising problems ($K = 7$; $\beta = 0.09$, 95% confidence interval [CI] -0.05 to 0.22, very low-certainty evidence). E-cigarette use was associated with an increased risk of subsequent internalising problems ($K = 11$; $RR = 1.17$, 95% CI 1.07 to 1.28, very low-certainty evidence), but not among adolescents aged 12 to 17 years ($K = 5$; $RR = 1.11$, 95% CI 0.96 to 1.27). In sensitivity analyses for internalising problems excluding prevalence-adjusted studies, e-cigarette use was associated with increased risk of incident internalising problems ($K = 8$; $RR = 1.19$, 95% CI 1.09 to 1.30). E-cigarette use was associated with an increased risk of incident externalising problems ($K = 4$; $RR = 1.13$, 95% CI 1.08 to 1.18, low-certainty evidence). Results were judged to be at high risk of bias, largely due to uncontrolled confounding and potential selection bias.

Conclusion

E-cigarette use may be associated with an increased risk of later mental health problems. Limitations in existing longitudinal evidence preclude causal inference, and smoking status was not accounted for. Higher-quality longitudinal research (e.g. evidence triangulation) is needed to clarify the direction and magnitude underlying these associations.



Beyond standard care: new treatments for smoking cessation

12:00 - 12:15

Combined brain PET imaging and proteomics in a mouse model of tobacco-smoke exposure reveal the region-specific effects of NFL-102 on neuroimmune and signaling pathways

N. Tournier¹, S. Leterrier¹, C. Leroy¹, S. Goutal¹, G. Dal Bo², S.E. Lukas³, B. Lafont⁴¹Laboratoire d'Imagerie Biomédicale Multimodale (BIOMAPS), Université Paris-Saclay, CEA, CNRS, Inserm, Service Hospitalier Frédéric Joliot, Orsay, France, France²Laboratoire d'Imagerie Biomédicale Multimodale (BIOMAPS), Université Paris-Saclay, CEA, CNRS, Inserm, Service Hospitalier Frédéric Joliot, Orsay, France, Afghanistan³Behavioral Psychopharmacology Research Laboratory, McLean Hospital, Harvard Medical School, Boston, MA, U.S.A., United States⁴NFL BIOSCIENCES, France

Chronic tobacco smoke exposure induces persistent neurobiological alterations in brain circuits involved in nicotine dependence and withdrawal. NFL-102, a novel tobacco leaf extract with most nicotine removed, is intended for clinical development, as a smoking cessation aid to be administered subcutaneously only twice one week apart. Here, we investigated the CNS mechanism of action of NFL-102 in a mouse model of chronic cigarette smoke exposure using multimodal brain imaging and regional molecular profiling.

Female C57BL/6 mice were exposed to cigarette smoke for 4 weeks (2 h/day, 5 days/week). After exposure, smoke-exposed mice received either saline or NFL-102 (n=10 per group), and brain glucose metabolism was longitudinally assessed using [18F]FDG positron emission tomography (PET). Brain PET data were compared with those of control (tobacco-naïve, untreated) mice. Tobacco exposure induced persistent metabolic alterations in multiple brain regions, including cortical and thalamic regions (voxel-level analysis, $p < 0.05$, cluster size > 300 voxels), which remained detectable up to 16 days after cessation. NFL-102 significantly reversed these regional metabolic abnormalities at both 2 and 16 days post-treatment.

To characterize the molecular mechanisms underlying these PET-defined effects, the prefrontal cortex and thalamus were microdissected at the end of the PET imaging protocol, 16 days after treatment, and analyzed by multiplex immunoassays (n=8-9/group). On tobacco exposed mice, compared to saline, NFL-102 reduced pro-inflammatory cytokines such as IL-2 (-53.8%, $p < 0.001$), IL-9 (-50.3%, $p < 0.01$), and IL-5 (-38.2%, $p < 0.05$) levels, alongside a significant reduction in the astrogliosis marker GFAP (-25.7%, $p < 0.05$) in the thalamus, but not in the PFC ($p > 0.05$). NFL-102 significantly attenuated CREB (-26.2%, $p < 0.001$), JNK (-17.2%, $p < 0.001$), and NF- κ B (-16.1%, $p < 0.05$) expression in the PFC but not in the thalamus ($p > 0.05$).

These findings demonstrate that NFL-102 exerts region-specific neuroimmune effects in the thalamus and modulates key downstream signaling pathways in the prefrontal cortex, a region known to drive tobacco addiction by losing inhibitory control over reward circuits while strengthening cue-driven craving through maladaptive plasticity, providing a mechanistic basis for its clinical evaluation as a novel immunotherapy-inspired approach to smoking cessation.



Glucagon-Like Peptide-1 receptor agonists (GLP-1s) for treatment of tobacco and alcohol dependence: a systematic review and meta-analysis of RCTs and experiments

D. Titheradge¹, C. Burke¹, S. Jia¹, B. Cihan², I. Faulkner³, K. Abeysekera¹, M. Hickman¹, K. Thomas¹, G. Taylor¹

¹University of Bristol, United Kingdom

²University of Bristol, Afghanistan

³University of Manchester, United Kingdom

Background

Smoking and alcohol use are leading causes of preventable disease and death, contributing to >10 million deaths worldwide each year. Existing treatments for smoking cessation and alcohol use disorder remain limited. Glucagon-like peptide-1 receptor agonists (GLP-1s), used for diabetes and weight loss, target reward pathways implicated in addiction and may reduce nicotine and alcohol use.

Aims

We aimed to evaluate GLP-1 receptor agonists' effects on smoking and alcohol behaviours, and related outcomes, using evidence from clinical trials and animal studies.

Methods

This review followed Cochrane and PRISMA guidelines and was registered on PROSPERO (ID: CRD420251155420). We included in-human randomised controlled trials (RCTs) and controlled in-vivo animal studies of GLP-1 receptor agonists for smoking or alcohol outcomes. Databases were searched from inception. Two reviewers independently screened, extracted outcome data, and assessed risk of bias for each study. Random-effects meta-analyses estimated effect sizes, with heterogeneity, subgroup, and sensitivity analyses conducted, and evidence certainty evaluated using GRADE.

Results

A total of 3,113 studies were screened, with 64 studies included comprising 11 clinical trials and 39 animal studies, and 14 ongoing studies identified. Studies evaluated a range of GLP-1 receptor agonist classes. Meta-analyses of trial outcomes showed that GLP-1s reduced alcohol consumption (grams/day) (SMD = -0.48, 95% CI -0.84 to -0.11; k = 2) and cigarettes per day (SMD = -0.10, 95% CI -0.17 to -0.04; k = 3), and increased smoking cessation odds (OR = 1.39, 95% CI: 0.77 to 2.51; k = 3). There were no clear effects on AUDIT scores, drinks per week, heavy drinking days, nicotine dependence (FTND), post-cessation weight, or quality of life. Controlled animal studies showed that GLP-1 receptor agonists reduced alcohol intake and preference in self-administration models in rodents.

Conclusion

The evidence base is in its infancy. While there is emerging evidence that GLP-1 receptor agonists may reduce smoking and alcohol consumption, findings are limited by the small number of trials, small sample sizes, and heterogeneity in outcome measures. Larger, well-designed trials with standardised outcomes are needed to enable robust synthesis and adequately powered subgroup and sensitivity analyses.



Identifying promising smoking cessation ads for adults who smoke menthol cigarettes

M. Sakhuja¹, M.G. Hall¹, T. Licciardello Queen¹, S. Farris¹, J. Mendel Sheldon¹, S.D. Mills¹, C. Rosario², K.M. Ribisl¹, A.J. Lazard¹, P. Sheeran¹, N.T. Brewer¹

¹University of North Carolina at Chapel Hill, United States

²University of North Carolina at Greensboro, United States

Introduction. Adults who smoke menthol cigarettes could benefit from cessation campaigns accompanying bans on the sale of menthol cigarettes. Little is known about what type of communication messages are most effective for this group.

Aim. Our study identified and evaluated cessation ads designed specifically for adults who smoke menthol cigarettes through a randomized experiment.

Methods. Participants were 1,236 US adults (age 21+ years) who currently smoked menthol cigarettes. We randomly assigned participants to one of five conditions. Three intervention conditions presented smoking cessation ads themed on response efficacy (benefits of quitting), self-efficacy (confidence in one's ability to quit), and motivation (feeling energized to quit). Two control conditions, matched in length and readability, presented ads themed on reading and password safety (i.e., unrelated to smoking). In each condition, participants viewed six ads in random order. The primary outcome was how much the ads made them want to quit smoking (i.e., motivation). Secondary outcomes included how much the ads heightened quitting response efficacy, how much the ads heightened quitting self-efficacy, quit intentions, and efficacy beliefs.

Results. Intervention ads produced higher motivation than control ads ($M=2.69$ vs 1.44 , $p<.001$). The intervention ads also led to higher response efficacy ($M=2.63$ vs 1.46) and self-efficacy ($M = 2.62$ vs 1.46 , both $p<.001$). The impact of the ads on motivation varied by sexual orientation (interaction $\beta=-.32$, 95% CI: $-.62$ to $-.02$, $p=.03$) and nicotine dependence (interaction $\beta=-.35$, 95% CI: $-.58$ to $-.11$, $p=.003$). Intervention ads were less effective among participants who were lesbian, gay or bisexual (difference between intervention and control= 0.99 , Bonferroni-adjusted $p<.001$) versus heterosexual (difference= 1.31 , Bonferroni-adjusted $p<.001$), and among those with higher (difference= 0.98 , Bonferroni-adjusted $p<.001$) versus lower nicotine dependence (difference= 1.33 , Bonferroni-adjusted $p<.001$). Among the intervention themes, response efficacy ads produced the highest levels across all three outcomes (response efficacy: $M=3.32$; motivation: $M = 3.18$; self-efficacy: $M = 2.94$; both $ps<.001$). Response efficacy ads also led to higher quit intentions than self-efficacy ads ($M=3.14$ vs 2.90 , $p=.03$).

Conclusion. Messages about the benefits of quitting are promising for motivating cessation among adults who smoke menthol cigarettes and can inform communication strategies to support menthol-related regulatory efforts.



Non-invasive brain stimulation for treating nicotine dependence: findings from clinical trials

L. Zawertailo¹, K. Iturralde², K. Doray², Y. Chen², V. Tang¹, P. Selby¹

¹Centre for Addiction and Mental Health, Canada

²University of Toronto, Canada

Background: Transcranial Direct Current Stimulation (tDCS) targets cortical circuits and has been shown to acutely reduce craving and withdrawal symptoms among people who smoke. However, the efficacy of tDCS as an adjunct to smoking cessation pharmacotherapy has not been well-studied. Recently, tDCS has demonstrated potential in targeting and reversing the neuroadaptations associated with chronic smoking and relapse risk. Specifically, stimulation of the prefrontal cortical areas can strengthen the anterior cingulate cortex activity (salience network), suggesting a direct modulation of neurocircuits that underlie the cognitive-affective deficits found in those with tobacco use disorder. When used in conjunction with gold-standard treatment (pharmacotherapy and behavioural support), tDCS may improve end-of-treatment quit outcomes and reduce relapse over the longer-term.

Methods: Over the last 8 years we have conducted several trials exploring the utility of tDCS as an adjunctive treatment for nicotine dependence. The studies have all been randomized designs comparing active stimulation of the left dorsolateral prefrontal cortex to sham stimulation. All participants received either nicotine patches or varenicline. The primary outcome was 30-day point prevalent abstinence.

Results: In our pilot study with varenicline, 67% of the active tDCS group achieved 30-day abstinence compared to 38% in the sham group (Cohen's D = 0.6 (medium effect size) [95%CI: -0.0012 – 0.611]; p=0.12). Active tDCS also significantly decreased cigarette consumption over time but had no differential effect on nicotine craving. In our proof-of-concept trial of tDCS for vaping reduction and cessation, there was high acceptability of the intervention and reductions in vaping behaviour over the short-term. Findings from all of our brain stimulation studies will be presented and summarized.

Conclusions: Growing evidence supports the use of tDCS as an adjunctive treatment for tobacco dependence. Combining tDCS with varenicline treatment can increase continuous abstinence at the end of treatment. Fully powered randomized controlled trials are currently underway.



Nicotine pouches: who uses them, who do adverts target and reach, and do they help people quit?

12:00 - 12:15

Oral nicotine pouches for harm reduction: current evidence, gaps, and emerging data from a Cochrane systematic review

N. Lindson¹, H. Tattan-Birch², J. Brown², L. Shahab², M. Goniewicz³, C. Ma⁴, A. Difeng Wu¹, H. Jarman⁴, J. Livingstone-Banks¹, J. Hartmann-Boyce⁵

¹University of Oxford, United Kingdom

²UCL, United Kingdom

³Roswell Park Comprehensive Cancer Center, United States

⁴University of Michigan School of Public Health, United States

⁵University of Massachusetts Amherst, United States

Background

Since their introduction to the market in 2016, oral nicotine pouches (ONPs) have gained in popularity, alongside claims regarding their harm reduction potential. An investigation of the extent, quality, and completeness of the evidence base evaluating these claims is needed.

Aims

To evaluate: (1) benefits and harms of ONPs for transitioning from tobacco products and nicotine vapes, and (2) their impact on tobacco product and nicotine vape use prevalence, with emphasis on the breadth of evidence, key gaps, and ongoing research.

Methods

We searched to January 2025 for randomised controlled trials (RCTs) of ONPs in people using tobacco products and/or nicotine vapes. Eligible RCTs reported use outcomes (≥ 4 weeks), adverse events and/or biomarkers (≥ 1 week). We also sought interrupted or multiple time-series studies of population-level effects on prevalence. Primary outcomes were smoking abstinence, serious adverse events (SAEs), and smoking prevalence. We used Cochrane methods and assessed risk of bias using the RoB1 tool. Ongoing and unpublished studies were identified to characterise the evolving evidence base. We will present updated information on the status and progression of these studies, highlighting how the evidence base is evolving and where key uncertainties remain.

Results

Four completed RCTs met eligibility criteria ($n=282$; three independent, one industry-funded); all at high or unclear risk of bias. Two reported smoking abstinence at ≥ 4 week. A three-arm RCT ($n=45$) comparing ONPs, nicotine vapes and combustible cigarettes (CCs) produced highly uncertain estimates (ONP vs CC: RR 1.58, 95% CI 0.07 to 35.32; ONP vs EC: RR 0.25, 95% CI 0.03 to 2.02). A second RCT ($n=30$) comparing nicotine strengths (3 mg vs 6 mg) was also imprecise (RR 5.00, 95% CI 0.26 to 96.13).

Three studies reported SAEs, with none observed; certainty ranged from very low to low. No eligible studies assessed prevalence. Three additional industry-funded RCTs ($n=821$) appear completed but unpublished, and seven ongoing RCTs have been identified ($n=2,103$).

Conclusion

Evidence is insufficient to determine the effectiveness or safety of ONPs for transitioning from tobacco products or nicotine vapes. The field is characterised by sparse published data alongside a substantial pipeline of ongoing studies.



Young men see nicotine pouch adverts 10 times more often: Advertiser targeting and algorithmic reach on Meta social media platforms in the UK

K. Sun¹, S. Jackson¹, L. Xiao², S. Cox¹, M. Oldham¹, H. Tattan-Birch¹

¹UCL, United Kingdom

²City University of Hong Kong, Hong Kong

Background

Nicotine pouch use is growing in the UK, but little is known about how social media advertising for these products is distributed across demographic groups.

Aims

To examine which demographic groups nicotine pouch advertisers chose to target on social media, which groups Meta's algorithms actually delivered the adverts to, and to compare these patterns with general adverts.

Methods

Cross-sectional analysis of advert-level data from the Meta Ad Library, covering Meta social media platforms in the UK. A random sample of 741 nicotine pouch adverts shown in the 12 months up to December 2025, and a comparison sample of 1,125 general adverts were included. Analyses of reach were restricted to adverts eligible for all genders and adult ages (444 pouch adverts; 674 general). Outcomes were advertiser-set targeting criteria and estimated advert reach to each group. Male-to-female reach ratios within age groups, and reach ratios comparing age groups, were calculated per advert and summarised using geometric means. To assess whether patterns were pouch-specific, comparisons with general adverts were made using ratios of reach ratios (RRR).

Results

Most adverts (79.1%; 586/741) were eligible to be shown to all genders, the remainder were restricted to men only. All were restricted to adults (minimum age 18 years) and most (95.6%; 708/741) had no upper age limit. Despite this, pouch adverts eligible to be shown to all adults were more likely to reach men, particularly younger men. Among 18–24-year-olds, pouch adverts reached around ten times as many men as women (RR 10.0, 95% CI 8.7–11.5), compared with near parity for general adverts (RR 0.81, 95% CI 0.71–0.94), corresponding to an RRR of 12.3 (95% CI 10.0–15.1). Pouch adverts also showed a skew in reach towards younger age groups. Relative to those aged 35–44 years, reach was higher among 18–24-year-olds for nicotine pouch adverts (RR 1.33, 95% CI 1.17–1.51) but much lower for general adverts (RR 0.19, 95% CI 0.17–0.21), corresponding to an RRR of 7.0 (95% CI 6.0–8.2).

Conclusion

Nicotine pouch adverts on social media are often eligible to be shown broadly to all demographic groups but are disproportionately delivered to young men.



Oral nicotine pouch use in Great Britain: a repeat cross-sectional study, 2020–25

H. Tattan-Birch¹, S. Jackson¹, L. Shahab¹, V. Buss¹, T. Sun², D. Read³, E. Taylor¹, J. Brown¹

¹University College London, United Kingdom

²The University of Queensland, United Kingdom

³Loughborough University, United Kingdom

Background: Global oral nicotine pouch sales have grown rapidly in recent years, but population-level patterns of use remain poorly described.

Aims: To examine recent trends in nicotine pouch use in Great Britain.

Methods: We used data from the Smoking Toolkit Study, a representative monthly cross-sectional survey of tobacco and nicotine use in Great Britain, collected between October, 2020, and March, 2025 (~2450 participants per month). Participants were aged 16 years or older (16–17-year-olds included from January, 2022). Nicotine pouch use was self-reported through questions on current use of various nicotine/tobacco products. We estimated trends in the prevalence of current nicotine pouch use, overall and stratified by sociodemographic characteristics and other nicotine product use, as well as trends in the use of pouches to aid quitting smoking. All analyses are survey-weighted.

Results: A total of 127 793 individuals were included in this study. Among adults, nicotine pouch use increased from 0.1% (95% CI 0.1–0.2) in October, 2020, to 1.0% (0.8–1.2) in March, 2025. From 2022, increases were concentrated among young people: in 16–24-year-olds, use rose from 0.7% (0.4–1.4) in January, 2022, to 4.0% (2.9–5.5) in March, 2025, with no meaningful change in those aged 35 years and older. Use was higher among men, especially 16–24-year-old men (7.5%, 6.0–9.4 in March, 2025) and those who smoke or vape, but similar across nations and social grades. Among people using pouches surveyed from January, 2022, to March, 2025, 69% (95% CI 65–74) also used other nicotine products; 56% (52–61) smoked, 39% (34–44) vaped, and 16% (12–19) had never smoked regularly. Among people who attempted to quit smoking in the past year, the proportion using pouches in their most recent quit attempt rose from 2.6% (1.0–6.6) in October, 2020, to 6.5% (4.8–8.8) in March, 2025.

Conclusion: Nicotine pouch use has risen in Great Britain, primarily driven by sharp increases among young people, especially young men. Most users also smoked or vaped, and a growing proportion of smokers used pouches in attempts to quit smoking. These findings underscore the importance of implementing age-of-sale legislation for nicotine pouches and conducting research on their effectiveness for smoking cessation.



Nicotine pouch use in smoking quit attempts: real-world evidence from Great Britain

S. Jackson¹, H. Tattan-Birch¹, K. Sun¹, S. Cox¹, M. Oldham¹, J. Brown¹

¹UCL, United Kingdom

Background:

Use of nicotine pouches has increased rapidly in Great Britain since 2020, particularly among younger adults and men. However, little is known about how these products are used in smoking quit attempts, who uses them, and whether they are associated with successful cessation.

Aims:

To examine trends in nicotine pouch use in smoking quit attempts in Great Britain, describe the characteristics of users and the extent of use alongside other cessation aids, and estimate their real-world effectiveness for smoking cessation.

Methods:

Data will be drawn from the Smoking Toolkit Study, a nationally representative monthly cross-sectional survey of adults in Great Britain. Analyses will include adults (≥ 18 years) who report at least one smoking quit attempt in the past 12 months between October 2020 and July 2026. Trends in nicotine pouch use in quit attempts will be analysed using weighted logistic regression. Descriptive analyses will characterise the sociodemographic profile of users and features of quit attempts, including use alongside other cessation aids. Associations between nicotine pouch use and quit success (self-reported abstinence) will be examined using logistic regression, adjusting for sociodemographic characteristics, smoking dependence, use of other cessation aids, and features of the quit attempt.

Results:

Data collection is ongoing and analyses will be conducted in August 2026. Results will be available prior to the conference.

Conclusion:

Nicotine pouch use in smoking quit attempts is increasing in Great Britain and may be used by distinct subgroups of people attempting to quit smoking. This study will provide important real-world evidence on patterns of use and potential effectiveness, helping to inform policy and future research on the role of nicotine pouches in smoking cessation.

Keynote Lecture: Luk Joossens

16:00 - 17:15 | AMPHITHÉÂTRE ROUSSY

Illicit Tobacco Trade: Policy, Markets, and Enforcement

16:00 - 16:15

Cost, connections, and compromises: A qualitative analysis of illicit tobacco use in Aotearoa New Zealand

L. Leigh¹, J. Hoek¹¹University of Otago, New Zealand

Background

Illicit tobacco use appears to have increased recently in Aotearoa New Zealand and threatens efforts to reduce smoking prevalence. While studies have estimated the illicit market size, we lack in-depth insights into how people source illicit tobacco and the factors prompting uptake and sustaining on-going continued use.

Aims

We explored factors prompting illicit tobacco use and policy measures that could reduce the illicit market.

Methods

We undertook a qualitative study of diverse participants recruited using social media, community networks, and snowball sampling. Interviews commenced in February 2026, were conducted online and in-person, and probed participants' smoking histories, sources and experiences of illicit tobacco, including the risks and benefits of illicit tobacco use, and views on regulation and likely market development. We managed the data using NVivo and undertook a reflexive thematic analysis.

Results

We identified four over-arching themes. The first indicated the diverse illicit tobacco market; participants used multiple products including smuggled foreign and domestic brands, stolen retail packs, homegrown tobacco, and single (or small pack) cigarettes. Sources included social network contacts, informal sellers and social media; access varied and some sources required introductions. The second theme reflected inconsistent quality; participants typically found illicit tobacco harsher and less satisfying, though some reported becoming habituated over time. Theme three explicated motivations, purchases were driven by cost and necessity, though some participants wanted to support local sellers or saw illicit purchases as an act of resistance against the government. The final theme explored participants' ambivalence; many justified illicit purchases by offsetting these against purchases of other taxed goods and used selective moral boundaries (e.g., avoiding stolen products). Many thought government efforts to reduce the illicit market would be ineffective and instead suggested reducing excise taxes or increasing investment in cessation and social support.

Conclusions

Driven largely by affordability, illicit tobacco use is facilitated by widespread availability networks and rationalised using perceived inequities in tobacco control policy. Resourcing greater enforcement could disrupt existing networks but should be complemented by greater cessation support and social policies that reduce wider inequities.



Strengthening supply chain control of the illicit tobacco trade in Australia: A policy coherence analysis against the Protocol to Eliminate Illicit Trade in Tobacco Products

I. Meciar^{1,2}, C. Gartner^{1,2}, M. King^{2,3}, M. Okninski^{2,4}, C. Puljevic^{1,2}

¹The University of Queensland, Australia

²NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame, Australia

³Charles Sturt University, Australia

⁴University of Adelaide, Australia

Introduction:

Illicit tobacco trade in Australia has increased in recent years, undermining tobacco control efforts, reducing government revenue, and contributing to organised criminal activity. This study assesses the coherence of Australia's regulatory response to best practice measures by examining the extent to which federal and state/territory frameworks align with the supply-chain control measures set out in the Protocol to Eliminate Illicit Trade in Tobacco Products ('the Protocol').

Methods:

A policy coherence analysis was conducted focusing on Part III (Articles 6-13) of the Protocol. A desk-based review systematically identified and extracted data from Australian federal and state/territory legislation, regulatory instruments, and government policy documents. These measures were mapped against the Protocol provisions to assess the extent of alignment and identify implementation gaps. A semi-quantitative reporting approach was used to assess coherence across jurisdictions by Article and provision, enabling structured comparison of regulatory alignment and identification of priority areas for strengthening. Findings were synthesised to inform recommendations for policy reform.

Results:

Preliminary findings indicate partial and uneven alignment with Protocol supply-chain control requirements. While federal frameworks demonstrate established border control and enforcement measures, supply-chain controls in free zones remain inconsistent. Key gaps include variation in licensing systems, limited due diligence requirements, and the absence of a national tracking and tracing system. Inconsistencies in record-keeping obligations and cross-jurisdictional information sharing mechanisms further constrain supply-chain control and transparency.

Conclusions:

Australia's regulatory framework reflects elements of the Protocol but lacks comprehensive and consistent implementation across jurisdictions. Strengthening national coordination and enhancing upstream supply-chain controls may improve regulatory effectiveness in combatting the illicit tobacco trade.

Implications:

This study provides a structured assessment of Australia's regulatory response to the illicit tobacco trade and identifies priority areas for reform. Findings may support the development of more integrated and proportionate regulatory measures, and inform alignment with international best practice, including for emerging nicotine products.



Trends and correlates of purchasing illicitly traded tobacco: Findings from the 2016-2024 International Tobacco Control Four Country Smoking and Vaping Surveys

A. Cho^{1,2}, C. Puljevic^{1,2}, C. Lim^{1,3}, H. Kang^{1,2}, K. East⁴, R. Borland⁵, M. Cummings⁶, G. Fong^{7,8}, A. Hyland⁹, C. Gartner^{1,2}

¹NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame, Australia

²School of Public Health, The University of Queensland, Australia

³National Centre for Youth Substance Use Research, The University of Queensland, Australia

⁴Department of Primary Care & Public Health, Brighton and Sussex Medical School, University of Brighton and University of Suss, United Kingdom

⁵School of Psychology, Deakin University, Australia

⁶Department of Psychiatry and Behavioral Sciences, Medical University of South Carolina, United States

⁷Department of Psychology, University of Waterloo, Canada

⁸School of Public Health Sciences, University of Waterloo, Canada

⁹Department of Health Behavior, Roswell Park Comprehensive Cancer Center, United States

Background: Illicit tobacco trade undermines tobacco control policies, including price-based measures and packaging laws that require large graphic health warnings and may present a substantial barrier to advancing tobacco endgame policies.

Aim: We aimed to examine trends in purchasing of tobacco from the illicit market within four high income countries.

Methods: We analysed data from 22,114 adults who reported daily smoking and completed at least one wave of the International Tobacco Control Four Country Smoking and Vaping Survey (2016-2024; 33,931 observations). We examined trends in purchasing illicitly traded tobacco (ITT) and opportunities to purchase (assessed in 2024 only), and correlates of ITT purchasing.

Findings: ITT prevalence increased from 8.2% in 2016 to 9.1% in 2018, 11% in 2020, 13% in 2022 and 17.6% in 2024, with significant year-by-country interactions ($p < 0.001$). Within countries, we observed significant increases in past-6-month ITT purchase in Canada, England and Australia (2016-2024, $p < 0.0125$), with the increase highest in Australia (37.9% in 2024). Past-month ITT purchase was associated with living in Australia (aOR 6.27 [95% CI 4.52-8.69] vs US), Canada (aOR 4.34 [95% CI 3.19-5.89] vs US) or England (aOR 3.03 [95% CI 2.19-4.19] vs USA), age 18-24 (aOR 1.8 [95% CI 1.28-2.53] vs 55+), being male at birth (1.8 [1.28-2.53] vs female), reporting minority ethnicity (1.36 [1.08-1.70] vs majority), low income (1.43 [1.14-1.79] vs high), high smoking intensity (1.64 [1.18-2.27] vs low), using both factory-made and roll-your-own cigarettes (1.76 [1.45-2.14] vs factory-made cigarette only), experiencing past-month financial stress (1.66 [1.37-2.01] vs no), current vaping (1.97 [1.56-2.49] vs never vaped), and intending to quit within the next month (1.40 [1.04-1.89] vs. no).

Conclusions: Illicit tobacco trade appears to have increased in three out of the four countries since 2018.

Greater action on controlling the illicit tobacco trade is needed, especially in Australia. We identified some groups (e.g., young adults, those with low income, high nicotine dependence and intention to quit) who were more likely to purchase illicitly traded tobacco. Interventions to reduce demand for illicit tobacco should include free intensive quit support interventions to support quitting.



“It was just like boom”: Exploring the ‘crime cascade’ of illicit tobacco in Australia through the experience of franchise tobacconists

S. Brookfield^{1,2}, C. Puljevic^{1,2}, M. King^{1,3}, C. Gartner^{1,2}

¹NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame, Australia

²School of Public Health, The University of Queensland, Australia

³Australian Graduate School of Policing and Security, Charles Sturt University, Australia

Background

The estimated size of the illicit tobacco market in Australia has rapidly increased from 5.4% of the market in 2016-17 to approximately 55% in 2024-25. Criminal gangs have also begun firebombing tobacconists in a turf war for the illicit tobacco marketplace, with over 250 such attacks occurring since 2023. The Australian illicit tobacco trade therefore now presents an urgent and escalating public health and public safety concern.

Aim

This research aimed to explore how tobacconists and public health regulators have experienced the increase in illicit tobacco trade and its impacts on the sector.

Methods

In-depth qualitative interviews were conducted with 12 owners and staff of tobacco retailers regarding the licit and illicit trade of tobacco and vape products. Supplementary interviews were also conducted with two public health officials working on controlling the illicit trade. Interview transcripts were analysed using deductive and inductive coding, constructing overarching themes that addressed the dominant aspects of an escalating illicit tobacco trade.

Results

Participants reported that 2021-24 was a tumultuous period due to the rapid proliferation of independent tobacconists selling illicit tobacco and vaping products, significantly impacting their revenue, and overwhelming the available public health enforcement capacity. Tobacconists have therefore been more incentivised to sell illicit tobacco, and its availability has become accepted among customers for whom price had become more important than brand or quality. We conceptualise these trends as an exponential ‘crime cascade’ emerging from mutually reinforcing processes that operate across multiple domains including public health, law enforcement, economic pressures, and social normalisation.

Conclusion

While regulatory reforms (e.g., retail licensing and establishment of a federal commissioner) are being enacted to control this growing illicit market, these experiences also highlight the lack of preparedness of current tobacco retailers for business disruption and loss of customers. Government planning for a commercial tobacco endgame must also consider ways to reduce demand for illicit tobacco and how to help retailers transition out of retailing tobacco.



Youth Perspectives on Tobacco and Nicotine Use

16:00 - 16:15

Who's to blame? Adolescents' perceptions of responsibility for tobacco and nicotine use – a mixed-method FRESHAIR4Life study in Greece, Pakistan, Kyrgyzstan and Romania

C. Hoffman¹, I. Bouloukaki², A. Christodoulakis², T. Krasanakis², I. Tsiligianni², A. Taalaibekova³, G. Mirzalieva³, T. Sooronbaev³, J. Muhammad Akhter⁴, K. Kahut⁴, S. Saeed⁴, A. Antohe⁵, A. Lupu⁵, C. Isar⁵, F. van den Brand⁶, C. Cai¹, J. van Koeveeringe⁶, H. van Riswijk¹, M. Venemans¹, P. Abhyankar⁷, L. Carvalho⁸, S. Williams⁸, A. Versluis¹, R. van der Kleij¹

¹Leiden University Medical Center, Netherlands

²Department of Social Medicine, School of Medicine, University of Crete, 71500 Heraklion, Greece, Greece

³National Center of Cardiology and Internal Medicine named after academician Mirrakhimov, Bishkek, Kyrgyzstan

⁴Indus Hospital & Health Network, Karachi, Pakistan

⁵The National Centre for Studies in Family Medicine, Bucharest, Romania

⁶Department of Family Medicine, Maastricht University (CAPHRI), Faculty of Health, Medicine and Life Sciences, Maastricht University, Maastricht, Netherlands

⁷Usher Institute, The University of Edinburgh, United Kingdom

⁸International Primary Care Respiratory Group, Larbert, United Kingdom

Background

Adolescents remain central to the tobacco industry's survival strategy. By framing tobacco use as "free choice", the industry deliberately shifts blame and responsibility onto the user – a frame that affects motivation and behaviour in tobacco prevention and cessation. Understanding how adolescents conceptualise responsibility may give directions towards more effective, youth-focused anti-tobacco strategies. This paper examines responsibility as an emergent theme from the contextual analysis of the multi-country implementation study FRESHAIR4Life.

Methods

A mixed-methods contextual analysis was performed among adolescents (14–21 years) in Greece (n=237), Kyrgyzstan (n=159), Pakistan (n=142) and Romania (n=188). Qualitative data from interviews, focus group discussions, and Photovoice were analysed using framework analysis and triangulated with eight questionnaire items.

Results

Across settings, adolescents (198 interviewed, 528 surveyed) described tobacco and nicotine use as normalised and omnipresent, with a strong influence from their social and physical environment. While some recognised tobacco industry marketing practices and identified addiction as a key driver of use, they predominantly perceived the individual as responsible and described addiction as a "weakness of the mind". Adolescents simultaneously expressed disappointment in adults and institutions for not protecting them and prioritizing "profits over health". The tobacco industry was largely absent from adolescents' discourses of responsibility.

Conclusion

The framing of tobacco use as personal responsibility appears to influence adolescents' perceptions across diverse contexts worldwide. Shifting adolescents' mental models from individual blame towards the industry as



a “common enemy” – for example, by exposing industry tactics and strengthening (government-led) tobacco denormalization – may enhance prevention efforts and empower adolescents to imagine – and demand – a tobacco-free future.



Young people's perspectives on e-cigarette access and policy: a qualitative study in Sheffield, England

C. Lewis¹, D. Gillespie¹, H. Fairbrother¹

¹University of Sheffield, United Kingdom

Background: Youth vaping is an important public health and policy concern in the UK, but less is known about how young people themselves understand access to e-cigarettes and related policy responses.

Aims: This study explored young people's experiences of accessing e-cigarettes and their perspectives on current and proposed vaping-related policy.

Methods: We used a pragmatic qualitative design involving two participatory workshops with members of the Sheffield Youth Cabinet, an elected group of 11-17-year-olds, in March 2025. Topic guides were informed by Penchansky and Thomas's five dimensions of access: availability, accessibility, affordability, acceptability, and accommodation. Workshops incorporated individual reflection and group discussion. Audio-recordings were transcribed verbatim and analysed thematically using a combined deductive and inductive approach.

Results: Five interconnected themes shaped young people's accounts of vape access and policy. First, a flawed information environment meant that knowledge gaps and mistrust of official sources could make vaping appear relatively acceptable. Second, vaping was socially normalised through peer behaviour, marketing, and public visibility. Third, convenient product design supported discreet and frequent use, including in settings where vaping was discouraged. Fourth, participants described a permissive and affordable retail environment, characterised by inconsistent age verification, proximity to schools, and low cost. Fifth, participants argued that vapes should be framed more clearly as smoking cessation tools rather than recreational products. Participants also suggested that young people may adapt to or circumvent restrictions, meaning that single policy measures may have limited impact in isolation.

Conclusion: Young people described access to vapes as shaped by overlapping social, environmental and product-related factors that made vaping easy and appealing. Their accounts suggest that efforts to reduce youth vaping should combine clearer health information with stronger retail and marketing controls, and consider how regulation might reduce the recreational appeal of vapes.



Reframing risk: A vignette-guided qualitative study of nicotine vaping perceptions, decisions, and messaging preferences in priority Australian youth

J. Trigg¹, E. Vallenga¹, C. Falso¹, L. Otieno¹, S. Dowden-Parker¹, G. Sallows¹, E. Cardamone², B. Johnson², S. Pettigrew³, M. Jongenelis⁴, J. Hoek⁵, S. Woolfenden⁶, J. Smith¹, J. Dono⁷, C. Miller⁷, L. Hides^{2,8}, R. Ellem^{2,8}, S. Ullah¹, R. Edwards¹, A. Guillaumier¹, J. Bowden¹, J. Morris⁹, A. Schultz⁹, C. Morris⁹, D. Coro⁹, P. Preston¹⁰, M. Brooke¹⁰, C. Cenko¹¹, C. Murphy¹¹, B. Bonevski¹

¹Flinders Health and Medical Research Institute, Flinders University, Australia

²School of Psychology, The University of Queensland, Australia

³The George Institute for Global Health, Australia

⁴School of Psychological Sciences, The University of Melbourne, Australia

⁵Department of Public Health, University of Otago, New Zealand

⁶School of Clinical Medicine, Discipline of Paediatrics, University of New South Wales, Australia

⁷Health Policy Centre, South Australian Health and Medical Research Institute, Australia

⁸Lives Lived Well, Australia

⁹Cancer Council SA, Australia

¹⁰Lung Foundation Australia, Australia

¹¹Preventive Health SA, Australia

Background

Nicotine vaping products (NVPs) are increasingly used by young Australians for social connection and stress relief rather than smoking cessation. Despite recent regulatory reforms restricting NVP access, illicit market availability remains high. Uptake is disproportionately high among priority youth populations, including those in rural and remote areas and those with lived experience of mental health challenges or substance use, where perceived benefits and accessibility may override health risk concerns.

Aims

To examine how priority youth populations perceive, make decisions about, and engage with NVPs, and to identify characteristics of effective vaping prevention messaging for this group.

Methods

A mixed-methods study employed vignette-guided semi-structured interviews, focus groups, and online surveys with 58 Australian youth aged 16–26 years, including attendees of mental health and drug and alcohol services and rural/remote residents, from Queensland and the Northern Territory. Narrative vignettes grounded in prospect theory, social cognitive theory, and gain/loss framing were used to elicit NVP perceptions and preferences for prevention messaging. Validated measures assessed mental health (PHQ-4), alcohol use (AUDIT-C), and cannabis use (CUDIT-R). Data were thematically analysed using an integrated deductive-inductive approach by two coders.

Results

Four themes characterised priority youth engagement with NVPs: (1) social exposure and curiosity-driven experimentation; (2) the accessibility and appeal of illicit vaping products; (3) use of NVPs as stress management tools in the absence of alternative coping strategies; and (4) perceptions of relative harm, whereby NVP use is rationalised as safer than tobacco, alcohol, or other drugs. The majority of participants reported current or past NVP use, with elevated psychological distress common across the sample. Participants demonstrated temporal discounting of long-term health risks in favour of short-term stress relief and social belonging.



Conclusions

Priority youth engagement with NVPs is shaped by intersecting social, psychological, and structural factors. Prevention messaging is likely to be more effective when it moves beyond deficit-focused, negative-outcome framing toward gain-framed, youth-centred approaches that acknowledge lived experiences and offer credible alternatives to NVP-based stress management.



Young people's perceptions and experiences of the UK disposable vapes ban: a qualitative interview study

N. Kempster Rowston¹, C. Kimber¹, A. Ford²

¹London South Bank University, United Kingdom

²University of Stirling, United Kingdom

Background: The introduction of a new style of disposable vape to the UK market in 2021 is thought to have contributed to the rise in youth vaping due to their appeal, accessibility, and affordability. The UK implemented a ban on the sale of disposable vapes in June 2025, passed under environmental legislation, citing both environmental and child safety concerns.

Aims: To understand how 16- to 18-year-olds in England perceive the intentions and efficacy of the UK disposable vapes ban.

Methods: Participants were 16-18-year olds in England who vape, or used to vape, every day or a few days a week, N = 19 (mean age = 16.84, 74% female, 79% white). Participants were recruited from schools and colleges in England. Semi-structured interviews were conducted online via Teams, between April 2025 and May 2026, and analysed thematically.

Findings: Some participants recognised the ban's purpose for environmental reasons, but the majority believed it was implemented to prevent youth vaping, either uptake or continued use. While many participants felt the ban was a good idea, especially in preventing uptake in younger age groups, the majority did not feel it was effective. Many explained that they and/or their peers had already moved onto reusable tank or pod devices prior to the ban for cost reasons. Young people highlighted the accessibility of vapes, both pre- and post-ban, as an issue, especially in corner shops and off-licenses.

Conclusion: While the sale of disposable vapes has been banned in the UK, many 'disposable-like' devices have been introduced to the market, which some young people may still perceive as disposable vapes. Findings suggest that future policy should focus on preventing the sale of vapes to under-18's, for example through introduction of a product licensing scheme, and addressing the widespread availability and accessibility of vapes.



Do the Correlates of Adolescent Nicotine Vaping in the United States Change After 2020? A Machine-Learning-Based Approach

S. Ni¹

¹Pennsylvania State University, United States

Introduction:

Whether the social and behavioral correlates of adolescent nicotine vaping in the United States have shifted alongside changes in prevalence, product markets, and policy around 2020 remains unclear. This study examined whether vaping is most strongly predicted by cigarette smoking, broader non-tobacco substance use, or demographic/social-contextual factors, and whether the relative importance of these predictors changed after 2020.

Methods:

The study analyzed eight waves of Monitoring the Future data (2017–2024; N = 50,380). Forty-eight predictors were grouped into three blocks: cigarette smoking, non-tobacco substance use, and demographic/social-contextual factors. Survey-weighted elastic-net logistic regression models were trained with five-fold cross-validation on 2017–2020 and 2021–2024 data separately, then evaluated on same-period and cross-period held-out test sets. Block-level predictor importance was estimated by sequentially removing each predictor block from the full model and averaging the AUC change across removal orders. Individual predictor importance was assessed using SHAP values.

Results:

Weighted past-30-day vaping prevalence was 21.2% (2017–2020) and 18.6% (2021–2024). Both models demonstrated strong same-period discrimination: AUC = 0.821 (95% CI: 0.788–0.850) and 0.856 (95% CI: 0.834–0.876), respectively. Cross-period AUCs declined only slightly (0.010–0.016) compared to the same-period AUCs. Non-tobacco substance use was consistently the most important set of predictors, with incremental AUC contributions increasing from +0.075 (95% CI: 0.047–0.103) in 2017–2020 to +0.118 (95% CI: 0.095–0.143) in 2021–2024. Cigarette smoking's contribution to model performance was modest and declined from +0.019 (95% CI: 0.004–0.038) to +0.007 (95% CI: 0.001–0.013). Alcohol and marijuana use ranked as the top individual predictors in both periods by SHAP value.

Conclusions:

Adolescent vaping among US adolescents is more strongly and increasingly associated with non-tobacco substance use, particularly alcohol and cannabis use, than with cigarette smoking. The cross-period AUC decline was small (0.010–0.016) compared to same-period ones, indicating that the overall correlate structure of adolescent vaping generalized well across periods, though non-tobacco substance use became substantially more important relative to other predictor blocks in 2021–2024. These findings suggest that vaping prevention may be better served by integration with alcohol and cannabis programs than by tobacco-specific programs alone.



Saving Lives or Winning Arguments? Rebuilding Productive Dialogue in Tobacco Research

16:00 - 16:15

Two Debates, One Crisis: Mapping the Evidence Landscape in Tobacco Research

J. Etter¹¹University of Geneva, Switzerland

Professor Jean-François Etter has studied nicotine, smoking cessation, and electronic cigarettes for over three decades. In this opening presentation he provides an overview of the tobacco harm reduction debate, presenting the evidence underlying both principal positions: the case that combustible tobacco, not nicotine, is the primary agent of harm, and that harm reduction through alternative nicotine products offers a pragmatic and potentially life-saving pathway for people who smoke; and the case that novel nicotine products carry their own risks, that population-level effects including uptake among young people and dual use cannot be dismissed, and that a failure to regulate carefully may repeat the mistakes of the past. He will argue that both positions contain legitimate scientific concerns, but that the two sides are not simply interpreting the same evidence differently: they have diverged on the more fundamental question of what the field is actually for. He will examine the factors driving this divergence, including differences in public health goals, conflicting perceptions of nicotine, the influence of institutional actors including WHO and the EU Commission, the role of social media and tribalisation, conflicts of interest on both sides, and the very different contexts facing high-income and low-and-middle-income countries. This presentation provides the evidential foundation for the symposium's central argument: that the problem is not the debate itself, but the conditions under which it is being conducted.



Left Behind: What Polarisation in Tobacco Research Costs the People Who Need Us Most

S. Cox¹

¹UCL, United Kingdom

Dr Sharon Cox is a principal research fellow at UCL whose research focuses on tobacco dependence and cessation among communities facing severe and multiple disadvantage. While the field debates the relative merits of competing harm reduction frameworks, smoking remains stubbornly and disproportionately concentrated among those with the least power to influence that debate - people experiencing homelessness, those living in poverty, and individuals with severe mental illness. In this presentation Dr Cox argues that polarisation in tobacco research is not an abstract methodological problem; it has a human cost, measured in lives. For many of the people her research serves, a nicotine-free gold standard is not a realistic near-term goal, and a field that insists on it as the only legitimate outcome risks leaving its most vulnerable populations without any meaningful support at all. Drawing on data from her trials of e-cigarettes among people experiencing homelessness, she will ask what a genuinely equity-informed approach to tobacco harm reduction would look like in practice, and what the field needs to change in order to deliver it.



Beyond the Impasse: What Better Disagreement could Look Like in Tobacco Research

C. Nootley¹

¹University of East Anglia, United Kingdom

Professor Caitlin Nootley is Editor-in-Chief of Nicotine & Tobacco Research, the journal of the Society for Research on Nicotine and Tobacco, and a researcher whose work focuses on smoking cessation and reduced harm interventions with a particular emphasis on vulnerable populations. As Editor-in-Chief she occupies a uniquely informed vantage point on how the field argues, seeing at first-hand how peer review, publication incentives, and professional pressures can entrench rather than resolve scientific disagreement. In this presentation she will draw on research into the psychology of disagreement and her own editorial experience to ask what structural and cultural changes would help tobacco researchers argue more honestly and more productively. She will explore practical pathways forward, including agreeing on the primacy of reducing mortality and morbidity from combustible tobacco, improving transparency around conflicts of interest, supporting better science in low-and-middle-income countries, engaging meaningfully with people who use nicotine and tobacco products in research and policy development, and actively creating opportunities for dialogue across entrenched positions. She will pay particular attention to the experience of early-career researchers, who enter a field where the pressure to align with a position is real, but where the honest scientific answer is often one of genuine uncertainty. The goal is not to resolve the debate, but to change the conditions under which it is conducted.



Progress Update: Interlaboratory study to determine the repeatability and reproducibility of nicotine and total particulate matter emissions in a variety of newer tobacco products

M. Brinkman¹, L. Sweeney¹, C. Fleshman¹, A. Hinton¹, A. El-Hellani¹

¹The Ohio State University, United States

Background. Testing nicotine and total particulate matter (TPM) emissions from cigarettes is highly standardized and includes adaptors that have been globally harmonized for >35 years. However, newer tobacco products, like e-cigarettes, are physically diverse, making many of them unsuitable for testing with standardized adaptors. Moreover, some popular combustible products, like tipped cigarillos, must be modified by cutting off the mouth ends that won't seal to standardized adaptors. A standardized method for generating and characterizing emissions from today's variety of tobacco products is critical to comparative testing and harm reduction assessment.

Objective. Conduct an interlaboratory study among tobacco product emissions testing laboratories to quantify the repeatability (r) and reproducibility (R) of nicotine and TPM emissions from select cigarettes, cigars, cigarillos, e-cigarettes, and heated tobacco products tested using standardized linear smoking and vaping machines fitted with a patented, commercially available universal adaptor.

Methods. Laboratories enroll in the study by agreeing to maintain confidentiality regarding their participation. A draft method, test products, and up to 40 Universal Smoking Machine Adaptors (USMAs) are provided as an incentive to enrolled laboratories. Selected laboratories will also conduct comparative testing using industry-standard adaptors. TPM is determined gravimetrically, and nicotine is quantified against an internal standard via gas chromatography with flame ionization or mass spectrometric detection. Laboratories enter data into a secure database hosted by The Ohio State University (OSU). Consistent with ISO 5725, two entities will statistically analyze the data: OSU and the Centers for Disease Control and Prevention.

Results and Conclusion. Enrollment is ongoing through June 2027, we have met 30% of our goal thus far. Because of its versatility, the USMA allows for the development of the first standardized multi-tobacco product type testing method.



Responses to nicotine reduction as a function of menthol cigarette availability in a laboratory clinical trial: Differences across sexual and gender identity in young adults who smoke

A. Cohn^{1,2}, M. Conlon³, R. Cassidy⁴, R. Denlinger-Apte⁵, D. Hatsukami⁶, E. Donny⁷, A. Villanti^{8,9}, M. Smith¹⁰, S. Ehlke¹¹

¹TSET Health Promotion Research Center, University of Oklahoma Health Campus, United States

²OU Health Stephenson Cancer Center, United States

³Independent Contractor, United States

⁴Center for Alcohol and Addiction Studies, Brown University, United States

⁵Department of Social Sciences and Health Policy, Division of Public Health Sciences, Wake Forest University School of Medicine, United States

⁶Department of Psychiatry and Behavioral Sciences, University of Minnesota, United States

⁷Department of Translational Neuroscience, Wake Forest University School of Medicine, United States

⁸Rutgers Institute for Nicotine & Tobacco Studies, United States

⁹Department of Health Behavior, Society, and Policy, Rutgers School of Public Health, United States

¹⁰Tobacco Settlement Endowment Trust (TSET) Health Promotion Research Center, University of Oklahoma Health Campus, United States

¹¹Department of Psychology, Old Dominion University, United States

Background. Cigarette smoking, and menthol use specifically, are more prevalent among sexual and/or gender minority (SGM) young adult (YA) smokers than their straight/heterosexual/cisgender peers. Theory suggests tobacco is higher in SGM YAs because it is used to cope with experiences of stigma and discrimination. The US Food and Drug Administration intends to reduce nicotine in cigarettes to lower their addictiveness. Menthol's appeal may reinforce smoking and thus increase nicotine intake among SGM smokers, limiting the impact of a nicotine reduction standard (NRS). This study examined how an NRS would affect menthol vs non-menthol cigarette appeal in SGM and heterosexual/straight YAs who smoke menthol cigarettes.

Method. N=112 YAs were enrolled to complete three laboratory visits where they first smoked their usual brand (UB) menthol cigarette and then a menthol and a non-menthol very low nicotine cigarette (VLNC), counterbalanced. Smoking topography, pre-post measurements of exhaled carbon monoxide and nicotine withdrawal, and post-smoking assessments of subjective effects and perceived drug effects were collected. Differences in subjective effects (puff liking, strength, satisfaction) and perceived drug effects by SGM status and cigarette type are reported for this abstract. Other outcomes will be presented at the conference.

Results. Across both groups, all subjective effects indices were higher for UB menthol vs either VLNC flavor. Significant SGM x cigarette type interactions were observed on puff liking, puff satisfaction, and perceived drug effects. Specifically, following UB menthol smoking, liking, satisfaction, and drug effects were higher among SGM vs straight/heterosexual YAs, but did not differ by SGM status following menthol or non-menthol VLNC smoking. Among straight/heterosexual YAs, liking, satisfaction, and drug effects were higher for menthol vs non-menthol VLNCs. In contrast, SGM YAs rated the menthol and non-menthol VLNCs similarly on satisfaction and perceived drug effects, but reported stronger liking for the menthol vs non-menthol VLNC. **Conclusions.** An NRS may have positive impacts on reducing product appeal specifically for SGM YAs who smoke menthol cigarettes, possibly decreasing tobacco disparities. Given evidence that an NRS promotes quitting and reduces tobacco-related harm, EU countries could consider market-wide reductions in cigarette nicotine levels to achieve its Tobacco-Free Generation goal of <5% prevalence.



Day-Level Associations Between Nicotine/Tobacco Use and Alcohol and/or Cannabis Co-Use Among Young Adults

H. Boyle¹, M. Bello²

¹Yale University School of Medicine, United States

²Medical University of South Carolina, United States

Introduction. Investigating co-use of nicotine/tobacco with alcohol and cannabis is important, as use of these substances together is prevalent among young adults and may have synergistic effects that increase health risks. Co-use of nicotine/tobacco with other substances has been associated with greater risk for adverse outcomes, including respiratory disease, cardiovascular problems, and mental health disorders.

Aims. The aim of this study was to understand day-level patterns of tobacco/nicotine co-use to help inform prevention/intervention strategies targeting young adult substance use. We hypothesized that day-level use of nicotine/tobacco would increase the odds of same-day co-use of alcohol and/or cannabis.

Methods. U.S. young adults (N=204, female=56.9%, Meanage=22.09 (SD=2.80) reporting heavy drinking completed 28 days of ecological momentary assessments. Each morning, participants reported on prior day nicotine/tobacco, alcohol, and cannabis use. On days involving co-use, participants reported whether nicotine/tobacco use occurred concurrently with alcohol and/or cannabis use, providing assessment of same-day co-use patterns. Compliance was excellent; 96% of morning reports were completed.

Results. Participants reported alcohol use on 45.0%, cannabis use on 25.6%, and nicotine/tobacco use on 21.2% of days. Alcohol and nicotine/tobacco co-use occurred on 8.3% of days, with nicotine/tobacco use occurring during alcohol use on 90.7% of those days. Cannabis and nicotine/tobacco co-use occurred on 3.3% of days, with nicotine/tobacco use occurring while participants were feeling effects of cannabis use on 85.6% of those days. Tri-use occurred on 5.5% of days. Nicotine/tobacco use was associated with higher odds of same-day cannabis use (OR=1.52, $p=.001$), alcohol use (OR=5.64, $p<.001$), and alcohol and cannabis co-use (OR=5.61, $p<.001$). Tobacco/nicotine use was associated with increased drinks consumed ($B=3.31$, $P<.001$) and increased odds of higher potency cannabis use including concentrates (OR=2.30, $p<.001$) and edibles (OR=1.94, $p=.036$) compared to flower.

Conclusion. Day-level nicotine/tobacco use is strongly associated with same-day alcohol and cannabis use, including alcohol and cannabis co-use. Findings suggest nicotine/tobacco use may serve as a marker of elevated day-level polysubstance use risk. Prevention and cessation efforts targeting nicotine/tobacco alone may miss opportunities to reduce co-occurring substance use and related harms. Integrated interventions addressing multiple substance use may improve tobacco control strategies and support more comprehensive risk reduction.



1,8-Cineole Inhibits Hepatic Nicotine Metabolism In Vivo: Pre-Clinical Validation of a Safe Herbal Adjunct for Smoking Reduction

L. Zacharia¹

¹Department of Health Sciences, School of Life and Health Sciences, University of Nicosia, Cyprus

Background: Smoking remains a catastrophic global public health crisis, contributing to over seven million deaths annually. While nicotine replacement therapy (NRT) is the mainstay for cessation, its real-world efficacy is severely limited by rapid nicotine clearance via the cytochrome P450 2A6 (CYP2A6) enzyme. Fast metabolizers experience more intense withdrawal symptoms and lower quit success rates compared to poor metabolizers. While chemical inhibitors like methoxsalen successfully reduce smoking behavior, their clinical utility is limited by mutagenic toxicity. This project evaluates 1,8-cineole (CN)—an authorized, orally safe herbal monoterpene—as a novel, plant-derived inhibitor of nicotine metabolism to aid smoking reduction. **Methods:** The inhibitory effect of CN was first assessed in vitro using mouse liver microsomes and coumarin as a probe specific substrate for CYP2A5 (the human CYP2A6 ortholog). For in vivo translation, mice received acute co-administration of nicotine (0.3 mg/kg s.c.) and CN (150 mg/kg i.p) at doses mirroring normal human exposure limits. In vivo CYP2A5 inhibition was quantified via plasma cotinine levels post-treatment. **Results:** In vitro evaluation confirmed that CN potently and concentration-dependently inhibits CYP2A5 activity, demonstrating an IC₅₀ value of 36 μM. In the in vivo acute treatment phase, positive indicative results were obtained: acute administration of CN substantially blocked nicotine metabolism, yielding a significant decrease in plasma cotinine levels by 55%, thus significantly extending systemic nicotine bioavailability compared to nicotine-only controls.

Conclusions: This study provides preliminary pre-clinical proof-of-concept demonstrating that 1,8-cineole effectively inhibits hepatic nicotine metabolism in vivo and reduces nicotine metabolism. Future studies should test the concept in a reliable two-bottle choice behavioral paradigm in mice to determine if CN administration could decrease voluntary, self-selected nicotine consumption in nicotine-dependent mice. As CN possesses an established oral safety profile as an approved European herbal medicine, positive results could pave the way for accelerated human clinical trials to evaluate CN as an inexpensive, accessible adjunct to enhance NRT success or promote smoking reduction.

Funding: This work is co-funded by the European Regional Development Fund and the Republic of Cyprus through the Research and Innovation Foundation, project CONCEPT/0525/035



Beyond Secondhand Smoke: Estimates of Recent Harms from Other People's Tobacco Use in the United States

I. Niles Zoschke^{1,2}, L. Li², W. Kerr², K. Karriker-Jaffe³

¹UC Berkeley, United States

²Alcohol Research Group, United States

³RTI International, United States

Background: Research on tobacco harms to others has focused primarily on secondhand smoke exposure. Less is known about the prevalence and correlates of other harms resulting from another person's tobacco use, including family, financial, property, and physical harms.

Aims: To characterize the extent, range, and prevalence of tobacco's harms to others in a nationally representative sample of U.S. adults.

Methods: Data were drawn from the 2023–2024 Alcohol's and Drugs' Harms to Others Survey, a nationally weighted survey of U.S. adults (analytic N=7,775). Respondents reported whether they experienced secondhand smoke exposure or five tobacco-related harms caused by another person's tobacco use during the past 12 months: family or marriage problems, financial difficulties, property damage, damaged belongings, and burns or other physical harms. Survey-weighted prevalence estimates and multinomial logistic regression models were examined.

Results: During the past 12 months, 18.3% of respondents reported exposure to secondhand tobacco smoke, representing an estimated 44.5 million U.S. adults, while 4.8% (estimated 12.7 million U.S. adults) reported at least one non-secondhand-smoke tobacco-related harm. Family or marriage problems were reported by 1.5% (estimated 3.8 million U.S. adults), financial difficulties by 1.6% (estimated 4.4 million U.S. adults), and physical or property-related harms by 3.2% (estimated 8.9 million U.S. adults). In adjusted analyses, older age was consistently associated with lower odds of experiencing tobacco-related harms from others. Daily tobacco use, marijuana use, and other drug use were associated with elevated odds of experiencing several harm domains. Non-Hispanic Black respondents had higher odds of reporting burns caused by others' tobacco use (aOR=5.60), whereas non-Hispanic Asian respondents had lower odds of secondhand smoke exposure (aOR=0.54). Compared with other tobacco-related harms, secondhand smoke exposure was associated with the widest range of demographic and substance use characteristics after adjustment.

Conclusions: Tobacco harms to others extend beyond secondhand smoke exposure and include family, financial, and physical harms affecting millions of U.S. adults annually. Surveillance systems and tobacco control policies focused exclusively on secondhand smoke may underestimate the broader social burden of tobacco use.



E-Cigarettes

11:15 - 12:00

Household, Community, and Financial Childhood Adversity and Home E-Cigarette Aerosol Exposure in U.S. School-Aged Children

A.L. Merianos¹, E.M. Mahabee-Gittens², L.A. Nabors¹, J.L. Kaminski¹, M.L. Smith³

¹University of Cincinnati, United States

²Cincinnati Children's Hospital Medical Center, United States

³Indiana University, United States

Background: Exposure to e-cigarette aerosol is a public health concern for school-aged children. Adverse childhood experiences (ACEs) may heighten vulnerability to tobacco-related exposures within children's homes. However, little is known about how specific types of ACEs are associated with children's home exposure to e-cigarette aerosol.

Aims: We examined the associations between household-based, community-based, and financial-based ACEs and home e-cigarette aerosol exposure among U.S. school-aged children.

Methods: We conducted a secondary analysis of 29,933 school-aged children who participated in the 2023-2024 National Survey of Children's Health. Parents reported whether children lived with anyone who used e-cigarettes inside their homes (yes or no). Household-based ACEs consisted of six items (e.g., parental divorce) categorized as 0, 1, or 2-6 ACEs. Community-based ACEs consisted of three items (e.g., being a victim or witnessing neighborhood violence) categorized as 0 or 1-3 ACEs. The financial-based ACE was defined as difficulty covering food or housing expenses on the family's income. Three separate multivariable logistic regression models for each of the three ACE types were fitted to predict home e-cigarette aerosol exposure while adjusting for sociodemographic characteristics and home combustible tobacco smoke exposure.

Results: Approximately 5% of U.S. school-aged children had home e-cigarette aerosol exposure. Overall, 19% of children experienced one household-based ACE, and 11% experienced 2-6 household-based ACEs. Compared with children reporting no household-based ACEs, those with one ACE had higher odds of home e-cigarette aerosol exposure (adjusted odds ratio [AOR]=2.36, 95% confidence interval [CI]=1.79-3.10), and those with 2-6 ACEs had nearly four-fold higher odds (AOR=3.79, 95%CI=2.85-5.03). Community-based ACEs were reported among 9% of children, and was associated with higher odds of home e-cigarette aerosol exposure compared to those with no community-based ACEs (AOR=2.06, 95%CI=1.53-2.77). Additionally, 15% of children experienced the financial-based ACE, and had higher odds of home e-cigarette aerosol exposure than those without this financial-based ACE (AOR=1.40, 95%CI=1.09-1.80).

Conclusion: Household-, community-, and financial-based ACEs are independently associated with an increased likelihood of home e-cigarette aerosol exposure among U.S. school-aged children. Trauma-informed tobacco control strategies and family-centered interventions aimed at reducing children's exposure to e-cigarette products are needed for children facing adversity.



Patterns of Dual Use of Combustible Cigarettes and E-Cigarettes Among Socioeconomically Disadvantaged Adults Enrolled in a Smoking Cessation Trial

N. Machado¹, S. Frank-Pearce¹, Y. Tsai¹, J. Gao¹, M. Businelle¹, A. Alexander¹, J. Dallery², D. Vidrine³, G. Kumar¹, D. Gupta¹, D. Kendzor¹

¹University of Oklahoma Health Campus, United States

²University of Florida, United States

³Moffitt Cancer Center, United States

Background: E-cigarettes are commonly used by adults who smoke, including those attempting to quit, but their role during cessation treatment remains unclear.

Aim: Describe patterns of dual-use of combustible cigarettes and e-cigarettes before and after a quit attempt among socioeconomically disadvantaged adults enrolled in a remote smoking cessation trial.

Methods: Adults interested in quitting smoking enrolled in a nationwide randomized trial received standard care (telephone counseling and nicotine replacement therapy) with or without smartphone-based financial incentives for abstinence. Baseline assessments measured sociodemographic, smoking, and e-cigarette use. Participants completed smartphone-based daily assessments of cigarette and e-cigarette use during the first 4 weeks post-quit with daily carbon monoxide abstinence verification. Tobacco/nicotine use status was reassessed at 8, 12, and 26 weeks post-quit.

Results: Participants (N=531) had a mean age of 53.4 years (SD=11.8); 69.5% were female, smoked 17.5 cigarettes/day (SD=8.7) for 33.1 years (SD=13.5). At baseline, 19.8% (N=105) reported past 30-day dual-use of combustible cigarettes and e-cigarettes, and 55.6% expressed interest in using e-cigarettes to quit smoking. Compared to exclusive combustible cigarette users, dual-users were younger (46.2 vs. 55.2 years, $p<.001$), reported fewer smoking years (27.7 vs. 34.4, $p<.001$), and were more likely to use other tobacco products ($p<.05$), indicating greater poly-tobacco use. Most common reasons for e-cigarette use were to reduce or quit smoking (62.9%) and the ability to use e-cigarettes where smoking was prohibited (42.9%).

Among baseline dual-users with EMA data, 17/102 reported e-cigarette use during the first 4 weeks post-quit; an additional 12 initiated use. Overall, 29/114 participants reported post-quit e-cigarette use (mean=1.46 days, SD=4.37; median=0), averaging 5.76 use days (SD=7.17; median=2). Abstinence rates were 15.8% at Weeks 8 and 12 and 13.6% at Week 26. Most participants continued combustible cigarette use, while dual-use increased over time (4.0% to 7.7%); exclusive e-cigarette use remained low ($\leq 1.3\%$).

Conclusions: Dual-use was reported by one in five participants and was more common among younger individuals and those engaging in poly-tobacco use. Despite substantial interest in using e-cigarettes for cessation, actual use during the quit attempt was minimal. E-cigarettes were not commonly used as a sustained substitute for combustible cigarettes during cessation treatment.



Attitudes and perceptions around, and preferences for, disposable types versus other vapes

C. Kimber¹, C. Pam¹, K. Soar¹

¹London South Bank University, United Kingdom

Background: In 2025, the UK banned disposable vapes in response to an increase in uptake among young people and never-smokers, along with environmental concerns. However, the industry quickly developed like-for-like disposables that were rechargeable with replaceable pods, which effectively circumvented the ban's intended purpose of deterring use among young people. Whilst it is crucial to ensure these products do not attract young people and non-smokers, understanding the factors that drive their appeal is important to inform future policies.

Aims: To compare attitudes, perceptions and preferences for disposable-like versus other types of vapes.

Methods: Using a within-subjects design, N=137 smokers (≥ 1 cigarette a day), vapers & non-smokers, age 18+ (Male: 46.3%) were presented with 4 sets of images showing i) disposables vs pods vs tanks vs mods, and asked to rate each type on appeal, perceived ease of set-up, and expectancy ratings on i) enjoyment of flavour and taste, ii) satisfaction, iii) craving alleviation, iv) perceived potential success in quitting using the product.

Results: One-Way Repeated ANOVAs found that disposables received significantly higher total ratings compared to tanks and mods ($p=.006$, $\eta^2=.063$). Ease of setup for disposables was rated the highest compared to tanks $F(3, 204)=3.35$, $p=.020$. For expectancy ratings, disposables rated the highest on i) enjoyment of flavour and taste $F(3, 204)=6.62$, $p<.001$ in comparison to pods ($p=.008$) and mods ($p=.003$) but not tanks ($p=.161$) and ii) on satisfaction $F(2.32, 157.61)=4.21$, $p=.012$ compared to tanks ($p=.008$) and mods (.042) but not pods ($p=.262$). No significant differences were found for appeal ($p=.132$), craving reduction ($p=.574$), or quit intention ($p=.877$).

Conclusions: Higher favourable ratings for disposable-like devices suggest ratings were driven more by perceived sensory and behavioural factors rather than perceived cessation efficacy. The ease of use associated with disposable-like, coupled with their appealing designs and variety of flavours, could perpetuate their continued popularity among young users, despite the UK ban on disposables. The ban may therefore not have the full intended effect in dissuading use in young people.



E-Cigarette Use in Chile: A Convergent Mixed-Methods Study with Qualitative-Informed Survey Development on Social Normalization, Risk Perception, and Regulatory Gaps

C. Silva-Gallardo^{1,2}, J. Ruiz-Tagle^{2,3}, Á. Castillo-Carniglia^{1,2}

¹Universidad San Sebastián, Chile

²Millennium Nucleus for the Evaluation and Analysis of Drug Policies (nDP), Chile

³Duoc UC, Chile

Background: Chile has experienced rapid growth in e-cigarette use alongside recent regulatory updates, including Law 21.642(2023), which introduced restrictions on sales, marketing, and public use. However, enforcement remains limited and informal markets persist. We present findings from the first mixed-methods study of e-cigarette use in Chile, examining how social dynamics, sensory appeal, and regulatory awareness shape use in a context relevant to the e-cigarette endgame.

Methods: We used a convergent mixed-methods design with qualitative-informed instrument development. Initial semi-structured interviews (n=6) informed key survey domains; remaining interviews were conducted in parallel (n=12). A cross-sectional online survey (127 items) was administered to a convenience sample of adults reporting e-cigarette use in the past 30 days (n=157). Quantitative and qualitative data were analyzed separately and integrated through triangulation and joint display to identify convergence, complementarity, and divergence.

Results: Convergence on social pathways and sensory appeal was observed, with socially mediated initiation. Survey data indicated that the first exposure and buying their first device were most commonly through close social networks (74.7% and 54.3%, respectively). Qualitative findings showed that 83.3% reported first exposure in social settings, and 77.7% described initiation through gifts or peer influence. Across methods, vaping was described as socially embedded and driven by sensory appeal, with motivations such as better smell (78.4%), taste (77.8%), and flavor variety (77.2%), consistent with interviews highlighting flavor, aesthetic value, and usability rather than nicotine content. Complementarity between risk perception and everyday practices was observed, with 50.4% perceiving e-cigarettes as less harmful than combustible cigarettes. Qualitative findings showed how these perceptions are enacted, including discreet use in workplaces. Divergence in regulatory awareness and lived experience was identified. Survey findings showed partial awareness of key regulations (e.g., 45.7% regarding sales to minors), whereas qualitative findings revealed broader uncertainty and a perceived lack of reliable information on risks, legality, and product composition.

Conclusions: Using a convergent mixed-methods approach, this study suggests that e-cigarette use in Chile is shaped by social diffusion, sensory appeal, and regulatory ambiguity. By integrating patterns with lived experiences, this study extends prior qualitative work by showing how these dynamics operate at scale and identifying gaps between formal regulation and everyday practice.



Emerging dual use of smoked tobacco and e-cigarettes in Malaysia: Evidence from the Global Adult Tobacco Survey

A. Dragicevic¹, A. Kress¹, A. Vashist¹

¹U.S. Centers for Disease Control and Prevention (CDC) Foundation, United States

Background:

Poly-tobacco use, particularly concurrent use of cigarettes and e-cigarettes, is an increasing public health concern globally. While this phenomenon has been widely studied in high-income countries, less is known about its emergence in middle-income countries undergoing rapid nicotine product transitions. This study examines patterns of single and dual tobacco product use among adults (15 years and older) in Malaysia and contextualizes these findings within recent increases in e-cigarette use.

Methods:

We analyzed nationally representative data from the Global Adult Tobacco Survey (GATS) Malaysia 2023 (n = 4,269). We estimated the weighted prevalence estimates and 95% confidence intervals (CI) of exclusive smoked tobacco use (cigarettes and other combustible tobacco products) exclusive e-cigarette use and dual use among current users. Descriptive analyses were stratified by sex, age, urban/rural residence, education and ethnicity. Changes over time in current e-cigarette use were assessed using comparison data from GATS Malaysia 2011 (n = 4,250).

Results:

Overall, 21% (95% CI: 19.1, 23.0) of Malaysian adults were current tobacco smokers or e-cigarette users. Among current users, 72.4% (95% CI: 67.0, 77.2) were exclusive tobacco smokers, 9.1% (95% CI: 6.6, 12.4) were exclusive e-cigarette users and 18.6% (95% CI: 14.2, 23.8) were dual users.

Preliminary subgroup analyses suggest heterogeneity in poly-use patterns across demographic groups, with higher current e-cigarette and dual use observed among younger adults and men, consistent with broader global trends.

E-cigarette use increased dramatically between 2011 and 2023, rising from 0.8% (95% CI: 0.4, 1.6) to 5.8% (95% CI: 4.6, 7.2), representing a 599.5% relative increase.

Conclusions:

Malaysia is experiencing a rapid shift in its nicotine product landscape, characterized by substantial growth in e-cigarette use and the emergence of dual use in a population historically dominated by combustible tobacco use. Although most users remain exclusive cigarette smokers, nearly one in five tobacco users now engage in dual use, raising concerns about sustained nicotine dependence and potential delays in cessation. These findings underscore the need for comprehensive strategies addressing both combustible and emerging nicotine products, as well as targeted interventions for populations at highest risk of poly-use.

Distinct Functional Connectivity Profiles During Nicotine Cue Exposure in Young Adult Vapers and Smokers

K. Boparai¹, H. Yuan-Lin¹, P. Selby¹, L. Zawertailo¹

¹Centre for Addiction and Mental Health, Canada

Introduction: Electronic cigarette (e-cigarette) use has risen sharply, yet the neural mechanisms underlying cue-induced craving in vapers remain poorly understood. While combustible cigarette smokers show well-established disruptions in corticostriatal and insular circuits during cue exposure, it is unclear whether vapers exhibit similar or distinct connectivity profiles. This study used generalized psychophysiological interaction (gPPI) analysis to characterize functional connectivity during nicotine cue exposure in vapers, smokers, and healthy controls, and to examine how connectivity is modulated by satiety state.

Methods: Young adults aged 18-25, including exclusive e-cigarette users (n=22), exclusive tobacco cigarette smokers (n=21), and non-nicotine-using controls (n=18), completed two fMRI cue-reactivity sessions, one sated and one following overnight (12-hour) abstinence, during which all participants viewed e-cigarette, cigarette, and neutral cue images. Seed regions included the bilateral caudate (reward learning and cue-triggered motivation), bilateral insula (interoceptive awareness and craving), and anterior cingulate cortex (conflict monitoring and top-down regulation). Seed-based connectivity modulation was examined across cue type and satiety state within each group, as well as between groups at sated baseline. Cluster-level inference used p-FDR<0.05 with a voxel threshold of p<0.001 uncorrected.

Results: Compared to controls, vapers showed a dissociation in caudate connectivity: enhanced connectivity to bilateral precuneus (k=201, pFDR<0.001; k=159, pFDR<0.001; k=177, pFDR<0.001), alongside reduced connectivity to left inferior frontal/medial frontal gyri, and medial prefrontal cortex (k=236, pFDR<0.001; k=85, pFDR=0.012; k=67, pFDR=0.026). Vapers also showed reduced left insula connectivity to bilateral superior parietal lobule relative to controls (k=165, pFDR=0.001; k=137, pFDR=0.002). Smokers showed a distinct pattern: greater right insula connectivity to left temporal pole relative to controls (k=126, pFDR=0.006) and reduced anterior cingulate and caudate connectivity to right middle temporal gyrus and lateral occipital cortex (k=90, pFDR=0.047; k=132, pFDR=0.004).

Conclusion: Vapers and smokers exhibit dissociable functional connectivity profiles during nicotine cue exposure. Vapers show enhanced striatal connectivity to posterior imagery and salience regions alongside reduced connectivity to prefrontal control regions, consistent with heightened cue-driven engagement and impaired top-down regulation. Smokers show divergent insular and striatal connectivity patterns involving temporal regions. These findings highlight circuit-level differences between nicotine delivery methods with implications for understanding addiction vulnerability.



Mental Health Outcomes Following Electronic Cigarette Discontinuation

J. Roehr¹, A. Milstred², M. Blank¹

¹West Virginia University, United States

²University of Oklahoma Health Campus, United States

Background: Electronic cigarette (e-cig) use is associated with elevated mental health (MH) problems, including depression, anxiety, and stress. No work has examined whether such symptoms are alleviated with e-cig discontinuation, a pattern that has been observed when cigarette smokers successfully quit.

Aim: The purpose of this secondary analysis was to determine whether e-cig discontinuation is associated with improvements in MH using data from the national-level Population Assessment of Tobacco and Health Study.

Methods: The sample consisted of 3300 adults aged >18 years (43.2% aged 18-24) who reported current e-cig use (M=5 days/month) at Wave 4, and who also participated in Wave 5. MH was assessed using two indicators: 1) self-reported MH ("In general, how would you rate your mental health, which includes stress, depression, and problems with emotions?"; 1=Excellent to 5=Poor) and 2) internalizing and externalizing symptom severity (low vs high; Global Appraisal of Individual Needs–Short Screener). Mixed effects models were adjusted for demographic characteristics (e.g., gender, race), as well as current cigarette use. A time variable was created to account for survey waves.

Results: No significant interactions were observed between e-cig use and time for self-reported MH or internalizing or externalizing symptoms (p 's>.05). A significant main effect of e-cig use was observed, such that individuals who continued using e-cigs at Wave 5 had higher odds of high (vs low) internalizing (aOR=1.28, 95% CI=1.03-1.59, p =.032) and externalizing (aOR=0.76, 95% CI=0.61-0.95, p =.017) symptoms compared to those who discontinued e-cigs. Also, externalizing symptoms decreased significantly across waves (aOR=1.25, 95% CI=1.02-1.54, p =.036).

Conclusions: Contrary to findings for cigarette smoking, e-cig cessation was not associated with improved MH symptoms over time. However, individuals who continued using e-cigs reported greater internalizing and externalizing symptoms overall, suggesting that e-cig use may reflect underlying psychological vulnerability rather than moderating changes in MH over time.

Clinical Populations

11:15 - 12:00

Patient Engagement in a Mobile Smoking Cessation Program in Perioperative Care

A. Chavez Iniguez¹, P. Cupertino¹, V. Chavez-Uceda¹, R. Russi¹, B. Boachie¹, K. Mestnik¹, S. Sherman², F. Cartujano-Barrera¹, K. Rieth¹

¹University of Rochester, United States

²NYU Grossman, United States

Background

Smoking during cancer treatment impacts clinical outcomes, particularly for patients undergoing surgery. Mobile smoking cessation interventions are scalable, while engagement with bidirectional text messaging is linked to cessation outcome, levels of engagement in perioperative oncology care have not been assessed

Methods

In this single-arm pilot study, patients were identified through the electronic medical record. Eligibility criteria included current tobacco use, a diagnosis of lung or head and neck cancer, and scheduled oncologic surgery within 30 days. Recruitment occurred during surgical clinic visits or in the perioperative anesthesia clinic. Participants were enrolled in a 12-week mobile tobacco treatment program providing bidirectional text-message support and free nicotine replacement therapy (NRT). Messaging included automated prompts and participants had the option to text keywords related to cravings, quit progress, and support needs. Text message interactivity was assessed using a mixed-methods approach, including quantitative measures of message frequency and qualitative thematic analysis of participant-generated responses.

Results

Of 67 eligible patients identified during the pilot period, 22 (33%, 95% CI [0.218, 0.454]) enrolled. Enrolled participants had a mean age of 63.5 years; most were male (64%) and diagnosed with lung cancer (73%), with 18% identifying as Black or Hispanic and 41% residing in rural counties. Participants sent an average of 15.32 (SD=29.12; range, 0-135) messages over 12 weeks, demonstrating wide variability in engagement. Interactivity levels included no interaction (29.4%), low (38.2%; 1-9 messages), moderate (23.5%; 10-49), high (5.9%; 50-99), and very high (2.9%; ≥ 100). Qualitative findings demonstrated meaningful engagement across six themes: quitting strategies, external support, reasons to quit, self-efficacy, improved well-being, and surgery related motivation.

Conclusion

A mobile smoking cessation program integrated into preoperative care elicited meaningful patient engagement, revealing opportunities to optimize tailored, phase-specific support. Participants used the platform to actively seek support, report progress, and connect cessation efforts to surgical outcomes, indicating that engagement extends beyond message volume to include depth and relevance of interaction.



Pilot of enhanced smoking cessation support for adults taking part in the Lung Cancer Screening programme in the North East of England.

R. McIlvenna^{1,2}, R. Sharrock³, c. Robinson³, B. Richardson⁴, P. Evans⁴, J. Feeney⁵, J. Humphries⁶

¹North East North Cumbria ICS/CDDFT, United Kingdom

²Fresh & Balance (hosted by County Durham & Darlington NHS FT), United Kingdom

³Gateshead NHS Foundation Trust, United Kingdom

⁴Bridges Medical Practice, Gateshead, United Kingdom

⁵Fresh & Balance (hosted by County Durham & Darlington NHS FT, United Kingdom

⁶Newcastle University Teaching Hospital, Newcastle, United Kingdom

Background:

Smoking is the largest driver of health inequalities and single biggest risk factor accounting for around 70% percent of lung cancer cases in the England annually. In the North East of England there are higher rates of lung cancer incidence and mortality linked directly to smoking.

The Lung Cancer Screening (LCS) programme targets those people most at risk of lung cancer, inviting them to a unique screening opportunity if they have ever, or currently smoke, and are between 55-75 years old. Whilst smokers had been referred for cessation support as default on an 'opt-in' basis, there has been historically lower uptake of support which has been shown to prevent and improve outcomes in lung cancer. The LCS programme enhanced smoking cessation pilot offers a unique way to identify and engage with our current 'smoking' population, to support them in a way that they don't seek themselves.

Aim: To design and implement an enhanced tobacco dependency (smoking cessation) support programme for a 12 month period for patients identified as current smokers across the Newcastle-Gateshead (North East, England) LCS programme.

Methods:

- Opt out provision at LCS, including behavioural support, NRT, nicotine vapes, staff training, and accurate outcome data.
- Stop smoking pathway ensuring all identified smokers receive appropriate support.
- Specialist community team recruited to provide NRT and refer patients to Local Authority Stop Smoking Services, working alongside LCS nurses.
- Bespoke support, including tobacco reduction, for patients ambivalent about quitting or needing intensive help.
- Baseline data collection, GP record review, and proactive follow up with smokers recently screened but not yet offered cessation support.

Results:

In the early stages of the pilot, we can report that 67 patients were referred to the Community Tobacco Dependency Team through LCS checks in the first week and the pilot has led to closer working with LCS programme, tobacco commissioners and local stop smoking services.

Conclusion

We intend to work at place to further develop embedded pathways for the post-pilot period, including how this model could be translated across other Lung Cancer Screening sites areas.



MENTAL HEALTH AND TOBACCO USE IN CANCER PREVENTION: AN UMBRELLA REVIEW OF RESEARCH TRENDS

D. Desmoriaux¹, A. Guillemin¹

¹Institut National du Cancer (INCa), France

Background: Individuals experiencing mental health conditions and psychosocial vulnerabilities have smoking prevalence rates 2 to 6 times higher than the general population, face greater barriers to healthcare access, and bear a disproportionate burden of tobacco-related harms, including cancer. These populations are a key priority for both cancer prevention and addiction policies. Although research at the intersection of mental health, tobacco use, and cancer has expanded considerably, evidence remains fragmented across populations, outcomes, and care settings. A synthesis of the literature is needed to examine how mental health has been addressed in this field and to identify remaining knowledge gaps.

Aims: To conduct an umbrella review of the literature examining the relationship between mental health dimensions and tobacco use in cancer prevention.

Methods: An umbrella review was conducted following PRISMA guidelines. PubMed was searched for systematic reviews, scoping reviews, and meta-analyses published in English between 2010 and 2025. Reviews were eligible if they addressed tobacco use (including smoking, nicotine dependence, or smoking cessation), mental health or psychosocial factors, and cancer. Two reviewers independently screened titles, abstracts, and full texts according to predefined inclusion and exclusion criteria. Included reviews were analyzed using descriptive and thematic analysis.

Results: 28 reviews were included, and 41 publications were excluded after full-text assessment. Mental health was primarily examined as both a determinant and a consequence of tobacco-related behaviors and cancer experiences. As a determinant, research focused on psychosocial vulnerability factors (n=4), smoking cessation and behavioral interventions (n=9), and nicotine or e-cigarette use among cancer survivors (n=3). As a consequence, studies examined psychological dimensions of cancer screening (n=5) and psychological experiences after cancer (n=7). Studies included diverse populations including patients with cancer, smokers or individuals experiencing psychosocial vulnerabilities.

Conclusions: This umbrella review highlights a rapidly expanding field of research. Mental health is primarily examined as a determinant or consequence of tobacco use, cancer screening experiences, and post-cancer outcomes, rather than as a target for intervention. Few studies focus on individuals receiving care in specialized settings. These gaps highlight the need for intervention research that places mental health at the center of cancer prevention and tobacco control strategies.



Understanding the Association Between Smoking Status and At-Home Prostate Cancer Screening Engagement in an mHealth Intervention for Black Men

J. Neil¹, G. Gao¹, S. Frank-Pearce¹, A. Alexander¹

¹University of Oklahoma Health Campus, United States

Background: Black men report greater incidence and mortality from prostate cancer (PCa) than any other racial group. Smoking has been associated with lower uptake of PCa screening and worse PCa outcomes, raising concerns that tobacco use among Black men may compound existing PCa disparities.

Aims: Examine whether smoking status and smoking characteristics influence screening attitudes and behaviors among Black men participating in an at-home PCa screening mHealth intervention.

Methods: Black men (N=94) were randomized 1:1 to a control or intervention app and followed for 30 days. All participants could click to order a free, at-home prostate-specific antigen (PSA) test. At baseline, smoking status, smoking frequency, menthol use, past-year quit attempts, and Heaviness of Smoking Index were measured. Outcomes included (1) baseline intention to screen (Y/N) and (2) at-home PSA test ordering. Exploratory analyses examined smoking status on potential mechanisms (e.g., PCa knowledge, health literacy, fatalism) and their association with screening outcomes. Analyses used logistic regression, Fisher's exact and Wilcoxon rank-sum tests, with analyses controlling for study arm.

Results: Participants were classified as never (48.9%, n=46), former (22.3%, n=21), and current smokers (28.7%, n=27). Among current smokers, dependence was low (22% reported daily smoking; mdn 5 cigarettes pd) but menthol use (66.7%) and past-year quit attempt (74.1%) attempts were high. Compared with never smokers, former (OR=0.96, p=0.94) and current smokers (OR=0.78, p=0.621) had similar odds of intending to screen. 82/94 (87.2%) of participants ordered a PSA kit. Smoking status was not significantly associated with PSA test ordering (p=0.56), but current smokers who ordered a PSA test reported higher mdn cigarettes pd compared to those who didn't order a kit (p=0.046). There were no significant differences by smoking status on potential mechanisms, but greater PCa knowledge was associated with significantly higher odds of PSA screening intention (OR=1.16, 95% CI: 1.05–1.29, p=0.006).

Conclusions: Current smoking was not a barrier to PCa screening intention or PSA kit ordering among Black men, suggesting at-home screening interventions can reach men across smoking statuses. Future mHealth interventions offer opportunity to advance equitable prevention and early detection among high-risk groups through combined screening and cessation support

Adapting Tobacco Dependence Treatment for Patients with Cancer in Canada: Integrating Evidence, Lived Experience, and Implementation Consensus

N. Minian¹, P. Selby¹, L. Zawertailo¹, S. Veldhuize¹

¹CAMH, Canada

Background: Smoking among people with cancer remains a critical and under-addressed challenge in Canada, despite clear evidence that cessation improves treatment response, survival, and quality of life. In Ontario, smoking cessation care is intended to be integrated across Regional Cancer Centres (RCCs), yet delivery remains inconsistent. There is a need to better understand the barriers and facilitators to integrating smoking cessation to routine cancer care.

Methods: This multi-method program of research integrates: (1) a rapid systematic review of implementation strategies in oncology; (2) qualitative interviews with healthcare providers (HCPs) across RCCs; (3) interviews with patients who smoke and have cancer; and (4) a modified Delphi panel of providers, cessation champions, and patients. The Consolidated Framework for Implementation Research guided analysis of multilevel determinants.

Results: The rapid review (18 studies) identified implementation strategies (training and education, interactive assistance, and clinician support) associated with increased delivery of the 3As (Ask, Advise, Act), though implementation outcomes were rarely assessed.

HCP interviews (n=27) identified key barriers including time constraints, unclear role responsibility, and prognostic uncertainty. Providers often avoided cessation discussions with patients with advanced disease due to concerns about emotional burden and limited perceived benefit.

Patient interviews (n=15) revealed that free nicotine replacement therapy (NRT) and home delivery were critical facilitators, while stigma, lack of cancer-specific cessation information, and treatment-related overwhelm limited engagement. Smoking was consistently described as an emotional and behavioral coping mechanism, highlighting the need for empathetic, individualized care.

The Delphi panel reached consensus on four priority strategies: free onsite cessation medications, medication mailing, mandated referral pathways, and expansion of cessation champions, addressing both patient- and system-level barriers.

Conclusions: This research highlights that healthcare providers and patients face distinct but interconnected barriers, both of which must be addressed for smoking cessation to be effectively integrated into routine cancer care and meaningfully taken up by patients.

E-CIGARETTES FOR TOBACCO HARM REDUCTION IN OLDER ADULTS SCHEDULED FOR A LUNG CANCER SCREENING TEST

J. Avila¹, E. Park², J. Haas², N. Rigotti³

¹University of Massachusetts, Boston, United States

²Massachusetts General Hospital & Harvard Medical School, United States

³Harvard Medical School & Massachusetts General Hospital, United States

BACKGROUND: Lung cancer screening (LCS), recommended for US adults 50-80yo at high lung cancer risk, is an opportunity to provide smoking cessation treatment to older adults, but many cannot quit with treatment. Replacing combustible cigarettes (CC) with e-cigarettes (EC) is a potential harm reduction strategy, yet few older smokers use EC.

AIMS: To assess the feasibility and short-term effects of offering EC to adults having LCS.

METHODS: Study 1: Participants who completed a smoking cessation trial initiated at LCS and still smoked were surveyed about their interest in trying EC and perceptions of the health risks/benefits of EC vs. CC. Study 2: A pilot single-arm clinical trial assessed the feasibility and short-term effects (change in cigarettes/day, breath CO, EC use) of providing 4 weeks of EC (5% NJOY Ace) to Study 1 participants not planning to quit. Participants were followed for 8 weeks.

RESULTS: Study 1: n=204 (mean age 63y, 60% female, 80% white) completed the survey (57% response). Most (56%) had never tried EC, believed EC could help them cut down smoking but overestimated EC risks vs. CC. 31% were interested in trying EC in the future. EC interest was significantly associated with beliefs that EC are less harmful than CC and help smokers cut down. Study 2: n=15 (54% of eligibles) enrolled; 93% completed the study. Over 4-week EC provision, significant declines occurred in cigarettes/day (16.9 [SD: 7.2] to 10.4 [SD: 7.0], $p<0.001$; 10 outcome) and CO (19.4 [SD:11.0] to 12.3 [SD: 8.5], $p=0.04$). Cigarettes/day remained stable post-EC provision. At 4 weeks, EC were used on 5.5 (SD: 2.4) days/week. At 4 weeks, 2 participants (13%) had switched to EC, 12 (80%) were dual users, and 1 (7%) smoked only CC.

CONCLUSION: Some older adults who are not ready or able to quit smoking after LCS are willing to try EC for harm reduction. Communication to correct EC misperceptions among older adults having LCS might increase interest in trying EC. This pilot study demonstrated the feasibility of providing EC to older adults after LCS and suggested the short-term efficacy of EC to reduce CC consumption and CO exposure.



Current approach to smoking cessation in COPD in a Croatian tertiary pulmonary hospital: the authority gap.

J. Ostojić¹

¹Clinical Hospital Centre Zagreb, Croatia

Background. Tobacco consumption in Croatia is among the highest in Europe, and in recent years the growing number of daily smokers have become dual users combining cigarettes and novel tobacco products. In this setting, continuity of action is paramount and respiratory specialists dealing with chronic obstructive lung disease (COPD) are in the unique position to advise and help patients to quit.

The aim was to retrospectively study the current approach to smoking cessation in the outpatient department for obstructive lung diseases in a tertiary hospital centre in Croatia.

Methods. Retrospective, observational analysis assessed 400 random electronic medical records of COPD patients in 2025. We have analysed the data on current smoking, novel tobacco product use, quitting attempts, as well as quitting advice and assistance, including the follow-up.

Results. Of 400 records obtained, 224 (56%) COPD patients were current smokers with smoking history ranged from 20 to 168 pack years, 136 (34%) succeeded in quitting, but for 10% of patients the information was missing. Of all current smokers with COPD, just 2% were asked about vaping and only 7% about previous attempts to quit. Advice to stop was written in 36%, but concrete help with medication, psychological support and/or structured quitting programme in 7% of smokers. Among sustained quitters, 5% were asked about the level of certainty in maintaining abstinence.

Interestingly, only 25% of current smokers with COPD along with 29% of the ex-smokers were referred to national screening programme for lung cancer.

Conclusion. Our study reveals significant gaps in everyday physician practices related to smoking in COPD patients with missed opportunity to briefly ask, advise and offer structured help. It highlights the need for repeated peer-to-peer education and motivation related to all emerging forms of tobacco dependence in today's super-specialised medical expertise.

Feasibility and efficacy of screening, brief intervention, treatment initiation and referral to PROmote Smoking CEssation in Emergency Departments: the PROSCEED pilot randomized controlled trial

A. Philippon^{1,2}, C. Blanchet³, J. Belliard⁴, L. Di Cicco⁵, C. Deschar⁵, A. Bourg⁶, P. Thiebaud⁷, Y. Freund^{1,8}, A. Rousseau⁹, J. Leblanc^{10,11}

¹Sorbonne Université, Service des Urgences - Hôpital Pitié-Salpêtrière - Assistance Publique - Hôpitaux de Paris - Paris - France, France

²Université Paris Sorbonne Nord, Laboratoire Educations et Promotion de la Santé, UR 3412, France

³Service d'Accueil des Urgences - Hôpital Pitié-Salpêtrière - Assistance Publique - Hôpitaux de Paris - Paris - France, Afghanistan

⁴Service des Urgences - Hôpital SAint Joseph- Paris - France, Afghanistan

⁵Service d'Addictologie - Hôpital Pitié-Salpêtrière - Assistance Publique - Hôpitaux de Paris - Paris - France, France

⁶Service des Urgences - Hôpital Tenon - Assistance Publique - Hôpitaux de Paris - Paris - France, France

⁷Sorbonne Université, INSERM, Pierre Louis Institute of Epidemiology and Public Health; Assistance Publique - Hôpitaux de Paris (AP-HP), Hôpital St Antoine, Paris, France, Afghanistan

⁸Sorbonne Université - FHU IMPEC (Improving Emergency Care), Afghanistan

⁹Assistance Publique - Hôpitaux de Paris (AP-HP), Hôpital St Antoine, Clinical Research Platform Paris-East, Paris, France, Afghanistan

¹⁰Sorbonne Université, INSERM, Pierre Louis Institute of Epidemiology and Public Health, Afghanistan

¹¹Assistance Publique - Hôpitaux de Paris (AP-HP), Hôpital St Antoine, Clinical Research Platform Paris-East, Paris, France, France

Study objective: Tobacco control interventions proposed in emergency departments (ED) require strategies tailored to their work conditions. This trial evaluated the feasibility and efficacy of a screening, brief intervention, treatment initiation and referral (STIR) intervention for smoking cessation implemented by ED professionals.

Methods: In a randomized controlled pilot trial in three EDs, adult active smokers with non-life-threatening conditions were randomized. A brochure, a brief intervention, nicotine replacement therapy and follow-up consultations (STIR intervention) or only a brochure (control) were offered. The primary outcome at 3 months was the proportion of patients who a) attended follow-up consultation (feasibility) and b) who reported having stopped smoking (efficacy). Secondary outcomes included patients and healthcare providers perceptions. With an estimated smoking cessation proportion of 5% (control) and 20% (intervention), 152 patients were to be included.

Results: A total of 146 patients were enrolled (median age: 41.5 (1st quartile;3rd quartile: 30.0;53.0), 31.5% women, median pack-year smoking history of 14.0 (5.0;24.0)). At three months, follow-up consultation was 60.8% in the intervention group on site or by phone vs. 65.3% in control by phone (difference -4.5%, 95%CI: -20.5; 11.9). In the intention-to-treat population, there was no difference in smoking cessation (12.2% vs. 12.5%; difference -0.3%, 95%CI: -12.4; 11.6). The intervention was considered motivating by 68.8% of participants. Among 41 providers, 51.2% (before the study) and 56.1% (afterward) felt that supporting smoking-cessation was part of their role.

Conclusion: Although the efficacy of the intervention was not observed, its feasibility appeared acceptable, with approximately two-thirds of patients attending follow-up.



Opt-Out Tobacco Treatment in Practice: A Qualitative Analysis of Counseling Strategies That Maximize Tobacco Treatment Acceptance

T. Hutcheson¹, K. Richter¹, A. Hageman², D. Catley³, T. Scheuermann¹

¹University of Kansas School of Medicine, United States

²Washington University School of Medicine, United States

³San Diego State University, United States

Introduction. Most people who use tobacco do not receive evidence-based care, either because they report being unwilling to quit or because they decline assistance when treatment is offered. A recent trial of an opt-out approach to care presumptively provided treatment to everyone regardless of their intention to quit. Compared to standard care, the opt-out approach doubled rates of medication use and engagement in counseling and increased abstinence at follow up. We analyzed patient/provider transcripts from the trial among patients who had indicated that they were not interested in quitting prior to randomization to identify strategies employed by counselors to deliver opt-out tobacco treatment during clinical encounters and patient responses to this approach to treatment.

Methods. Among the 685 patients who consented into the trial, 440 were randomized to the opt-out condition. Of these, 200 (45.5%) stated they were not interested in quitting after leaving the hospital upon being asked; 42.5% (n = 85) of these individuals consented to have their initial counseling session recorded. We selected a purposive sample of 40 encounters (balanced to collect 6 different counselors' sessions) and conducted an inductive qualitative content analysis of counselor-patient interactions.

Results. Counselors asked questions or gathered information and engaged in active listening. To those individuals who expressed concerns or declined treatment, they used many different strategies in response. Those most commonly employed were 'acknowledge resistance,' 'health education,' 'highlight advantages,' and 'reflect resistance.' The most often coded patient response was patient engagement (engages) or acceptance of treatment (agrees). The third most common patient response theme was expressing concerns about medications. Despite stating they were not interested in quitting prior to receiving treatment, everyone in the sample accepted some form of treatment. Out of 40 patients, 28 (70%) accepted all four treatment components, 7 (17.5%) accepted 3 treatment components, and 5 (12.5%) accepted 2 treatment components. **Conclusion.** Opt-out style counseling is a viable approach that promotes high acceptance of tobacco treatment, regardless of patient's initial interest in quitting. Multiple strategies are effective in addressing patients' reluctance to receive evidence-based care.



Smoking among Arab physicians: professional responsibility, barriers and cultural norms

. Obeid^{1,2}, H. Admi¹

¹The Max Stern Yezreel Valley College, Israel

²The Ministry of Health, Northern District, Israel

Background

Physicians play a critical role in tobacco control, yet smoking remains prevalent among healthcare professionals in several regions. This study examined smoking behaviours, knowledge, attitudes, and prevention practices among Arab physicians, and explored demographic and professional correlates of smoking.

Methods

A cross-sectional survey study was conducted among 372 Arab physicians residing in Israel who were born in the country, working in hospital and community settings. A self-administered questionnaire assessed sociodemographic, personal and professional characteristics; smoking behaviours; attitudes toward smoking prevention; and prevention-related practices. Logistic regressions were used to identify predictors of smoking and prevention behaviours.

Results

Nearly one quarter (23.1%) were current smokers; 57.9% reported quit attempts. Among smokers, 56.6% used designated areas, while the remainder smoked in enclosed settings. Younger age (OR = 0.97, $p < 0.01$) and male gender (OR = 0.62, $p = .008$) were significant predictors of smoking. Physicians trained abroad had higher odds of smoking than those trained in Israel. Stress was identified as the primary contributor. While knowledge of smoking harms was high, it did not correlate with smoking status or prevention behaviours. Physicians in community settings reported significantly higher engagement in patient smoking prevention interventions than those in hospital settings. Attitudes toward prevention, but not knowledge, were positively associated with the area of clinical practice.

Conclusions

High knowledge levels are insufficient to change physicians' self-behaviour or professional practice. Tobacco control must shift from knowledge-sharing to addressing stress management and sociocultural norms. Interventions for targeted physicians' groups, such as hospital physicians and physicians trained outside their home country, are essential to strengthen their role as tobacco-control leaders. In addition, smoking prevention should be incorporated into medical education programs. Finally, health policy makers should be responsible for regulating guidelines that reinforce physicians' role as non-smoking role models, particularly within Arab communities and enforce smoke-free hospital policies.

Sex determinants of smoking cessation among smokers with arterial hypertension attending cessation services: a nationwide cohort study

I. Allagbé^{1,2}, A.L. LE FAOU^{2,3}

¹Outpatient Addictology Center, Georges Pompidou European Hospital, AP-HP Centre- Université Paris Cité, Paris, France

²Groupement d'Intérêt Scientifique du Réseau Français d'Excellence de Recherche sur Tabac, nicotine et produits connexes (GIS REFERTab), Paris, France

³Hôpital Européen Georges Pompidou - APHP Centre-Université Paris Cité, France

Background: Smoking is a major modifiable cardiovascular risk factor, particularly in patients with arterial hypertension. Moreover, at comparable tobacco exposure, women have a higher relative cardiovascular risk than men. However, determinants of smoking cessation (SC) in hypertensive smokers remain poorly studied. We aimed to identify sex-specific factors associated with SC in this high-risk population.

Methods: We performed a retrospective analysis using 2001-2018 data from CDTnet database. Smokers with hypertension aged ≥ 18 years attending at least two consultations with ≥ 28 days of follow-up were studied. The primary outcome was 28-day abstinence, biochemically validated. Sex-specific multivariable logistic regression models were performed to identify factors associated with abstinence.

Results: Among the 12,818 hypertensive smokers, 41.6% were women (mean age: 55 years). Women were more numerous in groups aged under 50 years, whereas men predominated in older age groups ($p < 0.001$). The overall validated 28-day abstinence rate was 47%, with a lower success rate in women compared to men (45% vs. 48%, $p = 0.003$).

In both sexes, SC was strongly associated with follow-up intensity, with a dose-response relationship (OR=2.46 for 3-6 consultations and OR=3.48 for ≥ 6 consultations; both $p < 0.001$). SC pharmacotherapy also improved outcomes, particularly varenicline (OR=2.08) or combined nicotine replacement therapy use (OR=1.67). High confidence in quitting (OR=1.27) and multiple prior quit attempts (OR=1.61), also predicted abstinence. Conversely, professional inactivity, depression history (OR=0.81), chronic bronchitis symptoms (OR=0.78), cannabis use (OR=0.69), and indoor smoking (OR=0.79) hampered SC.

Sex-specific differences were observed. In women, being highly educated (OR=0.83) was associated with lower abstinence (OR=0.61), as well as having diabetes (OR=0.79) and taking anxiolytics (OR=0.85). In men, suffering from peripheral arterial disease (OR=0.83) and smoking-related cancers (OR=0.80), taking antidepressant (OR=0.69), opioid substitution treatment (OR=0.46) and having high nicotine dependence (OR=0.75) were predictors of failure (All $P < 0.05$).

Conclusion: SC in smokers with arterial hypertension is influenced by both shared and sex-specific determinants. While follow-up consultations in cessation services and intake of SC pharmacotherapy were effective means to reach abstinence in both sexes, educated women surprisingly reached lower SC rates. In men, presenting multiple comorbidities and high nicotine dependence penalized SC, supporting the need for sex-tailored strategies.



Priority Populations

11:15 - 12:00

Smoking cessation outcomes of unemployed smokers in real-world clinical settings in France

I. Allagbé^{1,2}, A.L. LE FAOU^{3,4}

¹Outpatient Addictology Center, Georges Pompidou European Hospital, AP-HP Centre- Université Paris Cité, Paris, France., France

²Groupement d'Intérêt Scientifique du Réseau Français d'Excellence de Recherche sur Tabac, nicotine et produits connexes (GIS REFERTab), Paris, France., France

³Hôpital Européen Georges Pompidou - APHP Centre-Université Paris Cité, France

⁴Groupement d'Intérêt Scientifique du Réseau Français d'Excellence de Recherche sur Tabac, nicotine et produits connexes (GIS REFERTab), Paris, France

Background: Smoking is highly prevalent among disadvantaged groups, particularly among unemployed individuals. Nevertheless, the impact of the employment status on smoking cessation (SC) outcomes in real-world settings remains understudied. We assessed the association between employment status and SC, using data from the French smoking cessation services database, CDTnet.

Methods: We conducted a retrospective cohort study using 2001-2018 data from CDTnet. Adult smokers, attending ≥ 2 visits and completing ≥ 28 follow-up days were included. SC was defined as 28-day continuous abstinence validated by exhaled carbon monoxide < 5 ppm. Multivariable logistic regression models were performed.

Results: Among 76,064 smokers (54% women), 16,001 were unemployed (mean of 45 years). Compared with employed participants, unemployed were more often men and older and had lower education levels. Unemployed presented more often cardiovascular risk factors and cardiovascular diseases as well as respiratory diseases (27% vs. 14%) and tobacco-related cancers. In addition, they declared more often a depression history and depression symptoms (38% vs. 22%). Concerning smoking behaviors, they were heavy smokers with 28 (+/-20) cigarettes smoked daily with high nicotine dependence (65% vs. 54% in employed). They also reported fewer prior quit attempts, more frequent cannabis use, as well as alcohol misuse (all $p < 0.001$). Finally, unemployed smokers smoked indoor and lived with smokers more often. Concerning abstinence, lower success among unemployed was observed compared with employed smokers (36% vs. 53%, $p < 0.001$).

In multivariable analysis, unemployment remained strongly associated with negative odds of abstinence ($ORa = 0.63$, 95%CI [0.61–0.66]). Nevertheless, being 50-69 years old led to better abstinence rates in unemployed. Among the employed, male sex and higher education were positively associated with higher abstinence.

In both groups, a higher number of prior quit attempts and SC medications prescriptions favored abstinence. Furthermore, follow-up intensity showed a marked dose-response relationship with success (≥ 7 visits: $ORa = 5.62$, 95%CI [5.34–5.92] in employed persons vs. $ORa = 5.71$, 95%CI [5.22–6.25] in unemployed). Conversely, psychiatric conditions and other addictive behaviors hampered abstinence in both groups.

Conclusions: Unemployed smokers reached lower cessation success than employed smokers. Intensive follow-up with tailored programs with SC medications and behavioral support are essential to help them to be retained in treatment to favor abstinence.



An intervention to support smoking reduction in shelters and transitional housing : mixed-methods evaluation of TAPREOSI toolkit

S. Bonneterre¹, B. Redonnet¹, R. Gomajee¹, A. Roversi¹, M. Melchior¹

¹Inserm, France

Background

TAPREOSI (Tobacco and Precarity, Operational Evaluation of an Intervention Strategy) is a toolkit aimed at helping professionals of shelters and transitional housing (STH) manage tobacco consumption among residents and promote cessation. This toolkit, co-constructed with both professionals (e.g., addictions specialists, social workers) and residents, was tested in 5 pairs of STH and addictology centers distributed across multiple cities in France.

Aims

This study aims to evaluate how the introduction of TAPREOSI changes practices in professionals and smoking habits and perception about smoking in residents using mixed methods (questionnaires and focus groups) in a pre-post design. This presentation is about the pre-intervention, and insights from the post-intervention will be discussed.

Methods

Regarding residents, the questionnaire aimed to assess participants' socioeconomic and health status, tobacco consumption, existing and future smoking cessation (SC) attempts, knowledge about SC, and nicotine substitution treatments (NST). Professionals were asked about how they integrate SC in relation to residents, their literacy on SC and NST, TAPREOSI's acceptability, expectations, and obstacles. Regarding focus groups, this information was deepened through interviews with professionals about how smoking is handled in the centers, as well as barriers, and how they can be lifted to enhance SC attempts. For residents, smoking habits, willingness to reduce smoking or previous attempts, as well as barriers to quitting, were discussed.

Results

21 residents and 65 professionals completed the questionnaire, and 11 focus groups took place. A descriptive analysis was conducted for quantitative data, and a thematic analysis for qualitative data. Results indicate that most residents lack literacy on SC and ways to achieve it. This is considered as a barrier to attempting SC, despite willingness to try for various reasons (e.g., health, saving money). Professionals highlight the lack of knowledge or time to support residents through SC. They also think that quitting smoking is not a priority for most residents, considering the comorbidities they face. However, professionals are willing to change their practices around tobacco consumption.

Conclusion

This evaluation underlines the usefulness of a toolkit to help professionals enhance knowledge and training around tobacco reduction and give levers to support residents in future SC attempts.

Associations of smoking status with perceived social support among people with visual impairment

E. Matsuda¹, S. Ayuzawa², S. Kudo³

¹Tsukuba University of Technology, Japan

²Faculty of Health Sciences, Tsukuba University of Technology, Japan

³Institute of Human Sciences, University of Tsukuba(Acupuncture and Physical Therapy Teacher Training School), Japan

Purpose:

Visual impairment often develops in midlife, and many cases are caused by progressive eye diseases that gradually reduce visual function. People with visual impairment are more likely to experience psychological instability, and a certain proportion are smokers. Smoking has also been reported to accelerate the progression of some eye diseases, including age-related macular degeneration. In the general population, social support has been shown to play an important role in smoking cessation behavior and psychological adjustment. This study examined the association between smoking status and perceived social support among people with visual impairment.

Methods:

A web-based cross-sectional survey was conducted through educational and welfare organizations related to visual impairment. Participants were 295 people with visual impairment (mean age: 45.7 ± 12.3 years; 67.2% men). Perceived social support was assessed using the Japanese version of the Multidimensional Scale of Perceived Social Support (MSPSS), consisting of family, friends, and significant others subscales. Participants were classified as never smokers, former smokers, or current smokers. MSPSS total and subscale scores were compared using ANOVA and ANCOVA. In the ANCOVA, demographic variables (age, sex, severity of impairment, economic status, educational level, and living status) and psychological variables (subjective happiness, perceived stress, and vision-specific stress) were adjusted for.

Results:

There were 154 never smokers (52.2%), 85 former smokers (28.8%), and 56 current smokers (19.0%). MSPSS total scores were 52.9 ± 15.7 , 57.4 ± 13.2 , and 46.4 ± 16.1 , respectively. In the ANCOVA, significant differences in MSPSS total scores remained after adjustment for demographic and psychological variables ($p = 0.002$). Post hoc analyses showed significant differences between never smokers and current smokers, and between former smokers and current smokers. All three MSPSS subscales also showed significant differences after adjustment. For the "significant others" subscale, former smokers also showed significantly higher scores than never smokers ($p = 0.001$).

Conclusions:

The findings suggest that former smokers showed the highest levels of perceived social support, and that social support may play an important role in smoking cessation among people with visual impairment. Social connection and interpersonal support may represent important targets for smoking cessation support in this population.

Countering tobacco disinformation in U.S. Black communities: Selection of a campaign concept

A. Villanti¹, A. Altunbilek¹, K. Wadie¹, J. Garmon¹, A. Johnson¹, O. Wackowski¹, O. Ganz¹, C. Fryer², K. Sterling¹

¹Rutgers Institute for Nicotine & Tobacco Studies, United States

²University of Maryland, United States

BACKGROUND

In response to proposed policies banning menthol in cigarettes and characterizing flavors in cigars, tobacco companies have propagated disinformation about the harms of these policies to U.S. Black communities.

AIM

To identify one anti-disinformation messaging concept for campaign development.

METHODS

Four campaign concepts were proposed following robust formative research, including focus groups in Black adults in Atlanta, GA and Birmingham, AL and iterative feedback from members of an Expert Advisory Board. The concepts included different imagery, colors, and visual layouts with similar messages on tobacco disinformation; they were: 1) Be A Disruptor, 2) Reveal the Real about Tobacco Disinformation, 3) Disinformation Ends When Our Stories Begin, and 4) Know the Truth About Tobacco Disinformation and Say No Together. In February 2026, 429 Black adults from CloudResearch's Prime Panels completed an Qualtrics survey in which they were shown each of the four concepts in random order and completed the same Message Perceptions items (Likert scale from 1 "Strongly disagree" to 5 "Strongly agree"); these items were followed by an open-ended item ("What is the main message in this campaign?"). Participants were then asked to rank the four concepts from "most compelling" to "least compelling" on: Message, Image, Colors, and Call to action. Descriptive analyses evaluated the mean response and mean ranking of each concept; qualitative analyses in Microsoft Copilot categorized open-ended responses.

RESULTS

All concepts had similar scores for Message Perceptions items (range: 3.96 to 4.12). In ranking the four concepts, Concepts 1 and 2 were consistently rated the "most compelling" across all attributes (Message, Image, Colors, Call to Action). Open-ended responses to Concept 1 (Be A Disruptor), had the largest proportion of responses captured in the categories "Counter Disinformation/Tell the Truth" (26%) and "Speak Up/Stand Up/Use Your Voice" (16%). In contrast, more than half of responses to Concept 2 (Reveal the Real) reflected "Industry misinformation/lies" (58%) and an additional 19% were categorized as "profits over people."

CONCLUSION

Quantitative responses found similar positive responses to each campaign concept; ranking of all four concepts and qualitative responses to the concepts were essential to selecting a concept for an anti-disinformation messaging campaign.



Effectiveness of Tailored Smoking Cessation Support Compared with Standard Care among Indigenous Peoples: A Systematic Review and Meta-Analysis of Randomized Controlled Trials

S. Mahmoodianfard^{1,2}, J. Heshmati¹, E. Quirouette¹, H. Mir¹

¹University of Ottawa Heart Institute, Canada

²University of Ottawa, Canada

Background: Indigenous peoples experience disproportionately high rates of commercial tobacco use and a high burden of preventable morbidity and mortality. Smoking cessation interventions that incorporate cultural relevance and community context have been developed, but their effectiveness compared with standard approaches remains uncertain. This systematic review and meta-analysis evaluated the effectiveness of culturally tailored versus non-tailored smoking cessation interventions among Indigenous adults.

Methods: A systematic search of MEDLINE, Embase, CENTRAL, APA PsycINFO, Informit Indigenous Collection, Bibliography of Indigenous Peoples in North America, and Global Health was conducted from June to September 2024, with an update on May 28, 2025. Randomized controlled trials comparing culturally tailored with non-tailored smoking cessation interventions among Indigenous adults reporting 7-day point prevalence abstinence (PPA) were included. Outcomes were grouped by follow-up (1–3, 6, and ≥12 months) and pooled using fixed-effects meta-analysis (ORs, 95% CIs), stratified by self-reported and biochemically verified abstinence.

Results: Seven RCTs (n = 5,377 participants) conducted in the United States, Australia, and New Zealand were included. Tailored interventions incorporated Indigenous-specific elements such as community involvement and culturally relevant materials, with digital delivery in several studies. All studies had some concerns for risk of bias. In short-term follow-up, tailored interventions improved self-reported abstinence (OR = 1.48; 95% CI: 1.10–2.00; I² = 34.8%) but not biochemically verified abstinence. No significant differences were observed at 6 months or ≥12 months for either self-reported or biochemically verified abstinence.

Conclusions: Culturally tailored smoking cessation interventions may improve short-term self-reported abstinence among Indigenous adults; however, evidence for sustained or biochemically verified effectiveness is limited. Overall, culturally tailored interventions alone may be insufficient to achieve long-term cessation, highlighting the need for ongoing support and follow-up to maintain adherence.

Key Words: Indigenous peoples; Smoking cessation; Culturally tailored interventions; Randomized controlled trials; Systematic review and meta-analysis

Strategies to increase smoking cessation rates among people experiencing homelessness: a Scoping Review.

B. Redonnet¹, G. Muriago², A. Roversi¹, A.R. Gomajee¹, M. Melchior¹

¹Inserm, France

²Università degli studi di Verona (UNIVR), Italy

Introduction: People experiencing homelessness show high smoking rates, have limited access to smoking cessation support, and face specific challenges to quit tobacco. To date effective strategies for this marginalized population are not clearly identified.

Methods: This scoping review assesses interventions promoting smoking cessation among persons experiencing homelessness, their efficacy, feasibility and acceptability. We included primary qualitative, quantitative, and mixed methods studies on experiences and perspectives of people experiencing homelessness or professionals attending to their needs.

Results: The search of the scientific literature (PubMed, PsycInfo, CINAHL, Web of Science, Google Scholar) yielded 50 articles published up to May 20th, 2025. Six intervention categories were identified: 1) counseling/motivational interviewing (MI), 2) contingency management (CM)/financial incentives, 3) text messaging-based interventions (TMI), 4) e-cigarettes (or Electronic Nicotine Delivery Systems – ENDS), 5) collaborative or integrated staff models, and 6) smoking and cessation policies. The interventions examined mostly aimed at increasing participants' motivation to quit smoking. Counseling and CM were the most frequently tested and appeared to be effective. MI was moderately effective and TMI had limited effectiveness with regard to smoking relapse. All tested interventions were deemed acceptable by users. Patient-centered and harm reduction approaches were particularly appreciated.

Conclusions: This scoping review shows that counseling and CM are the most studied interventions aiming to increase smoking cessation rates among people experiencing homelessness. They appear to be moderately effective and while well accepted, their feasibility and sustainability may be questionable – especially CM. Additional studies are needed to test other approaches, in particular the use of e-cigarettes. This scoping review builds on previous syntheses of interventions aiming to reduce smoking rates among people experiencing homelessness and provides a comprehensive assessment of the acceptability and outcomes of these interventions.

« TABAPSY » : Initial findings and lessons learned from the pilot study and evaluation of a smoking cessation program in outpatient psychiatry

I. MAILLARD^{1,2}, M. MICHEL¹, J. ROELANDT^{1,2}, J. HARIZ¹

¹Université Paris Cité, Inserm - UMR 1123, ECEVE, France

²GCS-CCOMS pour la recherche et la formation en santé mentale, France

In France, tobacco use remains high among people with mental health disorders, who rarely receive support for reducing or quitting smoking, even within psychiatric care facilities. Yet the burden is heavy for these individuals, whose life expectancy is reduced by 20 years—a fact partly linked to comorbidities associated with tobacco use. Based on these findings, the public health intervention research project TABAPSY set out to develop, test, and evaluate a smoking reduction program specifically designed for outpatient psychiatric care. Its launch in 2019 led to the joint development, in collaboration with various stakeholders (mental health patients and caregivers, and primary care physicians), of the intervention, which began its pilot phase in January 2026. The evaluation is based on a mixed-methods approach combining: a randomized controlled trial involving 22 psychiatric sectors/centers from 11 public mental health facilities, divided into two arms (intervention/control), to compare changes in tobacco use between the two groups of smoking patients included in the study at different time points (at baseline, at 3 months, and at 6 months); and an implementation study focused on the 9 participating centers in the intervention arm, consisting of approximately 60 semi-structured interviews conducted with patients and professionals who did or did not participate in the implementation. The full set of results will be available by the end of 2026, but the initial findings already point to the effectiveness of the intervention, which is bringing about changes for service users (perceptions of tobacco, reducing or quitting smoking), caregivers (an open approach and a more systematic consideration of tobacco), and psychiatric services (integration of a dedicated offering), provided that a set of conditions (a flexible intervention that can be adapted to local realities) and key success factors (a dedicated, motivated, and skilled team, supported by management), and to draw lessons from them for the purpose of transferability.

Examining the Relationship between Loneliness and Nicotine/Tobacco Product Use Behaviors in U.S. Black and Latinx Young Adults

J. Garmon^{1,2}, C. Ntansah^{1,2}, C. Fryer³, M. Tomaino¹, A. Johnson¹, A. Altunbilek¹, A. Villanti^{1,4}, K. Sterling^{1,4}

¹Rutgers Institute for Nicotine and Tobacco Studies, Rutgers Health, United States

²Department of Family Medicine and Community Health, Rutgers Robert Wood Johnson Medical School, United States

³Department of Behavioral and Community Health, University of Maryland School of Public Health, United States

⁴Department of Health Behavior, Society and Policy, Rutgers School of Public Health, United States

Background: Loneliness, the subjective feeling of a lack of social connection, has been associated with cigarette smoking and is increasing among U.S. young adults. There is limited research examining the association between loneliness and the use of tobacco or nicotine products increasingly popular with younger users (e.g. vapes, cigarillos), or the complexities of multi-product use. This project examined associations between loneliness and nicotine/tobacco product use behaviors among a cohort of U.S. Black and Latinx young adults.

Methods: This study used wave 1 survey data from the C'RILLOS cohort (N=882). Loneliness was assessed with three items, "How often do you feel that you lack companionship?"; "How often do you feel left out?"; "How often do you feel isolated from others?", with responses hardly ever (1), some of the time (2), and often (3), summed such that higher scores indicated higher loneliness. Tobacco use behaviors reflect past 3-month use of cigarillos, cigars, cigarettes, e-cigarettes, hookah and single, dual (any two), and multi-(3 or more) nicotine/tobacco product use. Multivariable logistic regression models adjusted for race/ethnicity, gender, sexual orientation, education, income, and past 3-month blunt and alcohol use.

Results: Overall, participants reported a mean loneliness score of 5.64 (SD=1.94). Mean loneliness scores were significantly higher among those who identified as Hispanic (6.02; SD=1.66), 25+ years (6.11; SD=2.10); transgender (7.56; SD=1.08) (all $p < .001$). Loneliness was also significantly higher (all $p < .001$) among respondents reporting "ever use" of cigarillos as sold (6.19; SD=1.65) and as blunts (6.26; SD=1.88), cigarettes (6.27; SD=1.91), hookah (6.49; SD=1.87), e-cigarettes (6.03; SD=1.84), and alcohol (6.32; SD=1.63). Adjusted models identified associations between loneliness score and increased past 3-month cigarillo (OR=1.26; 95% CI=1.10,1.44) and cigarette use (OR=1.26; 95% CI=1.10,1.45), but with lower cigar use (OR=0.84; 95% CI=0.71,0.98). Loneliness was also associated with increased past-3-month single (OR=1.26; 95% CI=1.07,1.48) and dual (OR=1.36; 95% CI=1.17,1.60) but not for multi-nicotine/tobacco product use.

Conclusion: These findings suggest that loneliness is an important psychosocial factor associated with nicotine/tobacco product use behaviors among Black/Latinx young adults. This warrants further attention as a possible point of intervention for cessation efforts.



Tobacco and Nicotine use among the Bedouin population in the Negev in Israel

A. Khayat¹, N. Allasad Alhuzail¹

¹Sapir Academic College, Israel

Background: Israel is a heterogeneous country with the Arab population being its biggest minority group. In Israel, smoking is higher among Arabs compared to the Jews (23% vs 20%, respectively). This is driven by the high smoking rate among Arab men (40% vs 23% of Jewish men), and contradicted by the low smoking rate among Arab women (6% vs 17% of Jewish women). Bedouins in the Negev are a special subpopulation that's traditionally pastoral, Arab, Muslim, paternalistic and very tribal.

Aims: To study the use of tobacco and nicotine products among the adult Bedouin population in the Negev and relevant associated factors.

Methods: A cross-sectional survey was used for 7 weeks (March-April, 2026). The survey included questions about age, gender, marital status, education, employment, religiosity, first product ever tried, main product currently being used, and frequency of use. The data was analyzed descriptively using frequencies and percentages. The correlation between current use of any tobacco or nicotine product and the other variables was assessed using Chi square test, or Fischer's exact test, as appropriate.

Results: The sample included 233 respondents, 47% men, 51% under the age of 25, 67% held a university degree or were studying towards one, 38% were married, 55% were employed or self-employed, and 92% were religious. 36% of respondents ever used any tobacco or nicotine product, and 26% currently used any products (41% of men, 13% of women). The main products used at the time of data collection were regular cigarettes (50%), Nargila (42%) and e-cigarettes (8%), and 75% reported daily use. The only two variables associated with being an active user of tobacco and nicotine products are being male ($p < 0.001$) and being less religious ($p = 0.11$).

Conclusion: The Bedouin population is an understudied, marginalized and underserved subpopulation in Israel. Smoking rates are high among both men and women, indicating a culture of social acceptability of smoking. Cigarettes and Nargila need to be more tightly regulated. Policy makers should pay closer attention to subpopulations of particular interest, such as the Bedouins of the Negev.



Evaluation of the process, effects and costs of the SAMURAI participatory intervention for smoking cessation among migrants attending PASS clinics in Île-de-France (The SAMURAI 2 Study protocol)

L. Yombo Kokule^{1,2}, C. VEYRIER^{1,2}, M. DURACINSKY^{1,3}, I. YAYA^{1,2}

¹1. Patient-Reported Outcomes Research (PROQOL), Health Economics Clinical Trial Unit (URC- ECO), Hotel-Dieu Hospital, AP-HP, Paris, France., France

²2. Université Paris Cité, Inserm, ECEVE, UMR 1123, F-75010 Paris, France., France

³3. Université Paris Cité, Inserm, ECEVE, UMR 1123, F-75010 Paris, France. 3. Medicine Unit, Bicêtre Hospital, AP-HP, Le Kremlin-Bicêtre, France, France

Context

Tobacco use among migrant populations remains a significant public health concern, often exceeding rates observed in native populations. Migrants face unique barriers to smoking cessation, including socio-cultural, economic, and structural factors. In France, while overall smoking prevalence is declining, certain migrant groups particularly those from Africa or Middle East show increasing rates. this gap underscores the need for tailored smoking cessation interventions.

Objectives

Primary objective: evaluate the effect of the SAMURAI intervention on tobacco consumption among migrants in Permanence d'Accès aux Soins de Santé (PASS).

Secondary objectives: (1) evaluating acceptability and feasibility from migrants' and healthcare providers' perspectives; (2) assessing smoking cessation rates and cigarette reduction at end of intervention and one month later; (3) conducting a cost analysis to assess scalability.

Methods

SAMURAI 2 is a pragmatic quasi-experimental cluster-randomized controlled trial, conducted over 12 months across 8-10 PASS in Île-de-France. Centers will be randomized into intervention or control groups. Intervention will last 3 months and includes four components: peer-led monthly group sessions addressing cultural barriers and social support; adapted educational workshops; a WhatsApp peer support group; and provision of nicotine replacement therapy. Control centers provide standard minimal cessation counseling, as currently recommended.

A total of 240 adult migrant smokers motivated to quit will be enrolled (120 per group, 24-30 per center), Additionally, 4 to 5 healthcare professionals from the intervention PASS will participate in qualitative interviews.

Data collection occurs at baseline, end of intervention, one-month follow-up. Quantitative measures include cigarette consumption, cessation rates, nicotine dependence, and costs. Qualitative data from observations, interviews, and focus groups will capture perceptions, barriers, and implementation experiences.

Expected public health impact and Perspectives

SAMURAI 2 is expected to demonstrate a feasible, effective, and cost-compatible intervention for migrant populations in PASS. By addressing multi-level barriers, it aims to reduce tobacco smoking and related health inequalities. among migrants, and to provide a replicable model for other vulnerable groups.

If successful, the SAMURAI intervention could be integrated into routine care and adapted for other underserved populations, informing policy and contributing to more equitable tobacco control strategies.

Keywords: smoking cessation; migrant population; participatory intervention.



Transition Patterns of Dual Use of Cigarettes and E-cigarettes among Pregnant Women: A Latent Transition Analysis of PATH Study Data

A. Shankar¹, P. Sankaran¹, X. Wen¹

¹State University of New York at Buffalo, United States

Background: Dual use of cigarettes and e-cigarettes poses health risks to mothers and their offspring.

Aims: We aimed to identify transition patterns and related factors among dual users during pregnancy

Methods: Using waves 1–7 data of the Population Assessment of Tobacco and Health Study (PATH), we selected 484 women who experienced a unique or first pregnancy, reported non-pregnant in the prior wave, and were followed across the two consecutive waves. Latent class and transition analyses were conducted at pre-pregnancy (T1) and pregnancy (T2) and from T1 to T2, respectively. We utilized multinomial logistic regression to examine the influence of socio-demographic and risk perception on class transitions.

Results: Based on the frequency of cigarette and e-cigarette use, three latent classes were identified, including non-current users (C1), light dual users (C2), and heavy cigarette and light e-cigarette users (C3). Transition probabilities indicated a similar transition toward C1 at T2, with 93% of non-current users staying in C1, while 86.8% of C2 and 68% of C3 moved to C1. Having a household income of \$25K–49.9K (vs. <\$25K) was associated with increased odds of transition from C1 at T1 to C2 at T2 (odds ratio [OR]=4.39 [95% confidence interval or CI:1.63–11.77], $p=0.003$). Consistently, this factor was associated with lower odds of transition from C2 to C1 (OR=0.24 [0.09–0.62], $p=0.004$). Belief that secondhand smoke (SHS) harms the fetus was associated with lower odds of transition from C1 to C3 (OR=0.18 [0.06–0.53], $p=0.002$) or from C2 to C3 (OR=0.17 [0.03–0.93], $p=0.041$). Perceiving e-cigarettes as equally or more harmful than cigarettes was associated with lower odds of transition from C1 to C2 (OR=0.40 [0.17–0.93], $p=0.033$) or from C1 to C3 (OR=0.20 [0.07–0.53], $p=0.001$). This perception was associated with higher odds of transition from C2 to C1 (OR=2.96 [1.29–6.80], $p=0.010$). Among C3 at T1, transition to C1 was strongly associated with belief that SHS harms the fetus (OR=7.27 [2.37–22.33], $p<0.001$) and perceiving e-cigarettes as equally or more harmful than cigarettes (OR=5.86 [2.16–15.85], $p<0.001$).

Conclusion: Most women reduced or ceased dual use during pregnancy. Public health education emphasizing fetal harm and e-cigarette risks may support cessation.

A behaviour change approach to tailoring smoking cessation interventions for substance use treatment services

Z. Swithenbank¹, G. Hay², L. Porcellato²

¹Lancaster University, United Kingdom

²Liverpool John Moores University, United Kingdom

Background:

This study uses a recovery-informed approach to behaviour change, which recognises recovery from problematic substance use as a long-term, holistic process by which people improve their overall health and well-being. Smoking cessation should be integrated as a part of this process, especially due to the high prevalence of smoking in this population. Behavioural approaches to smoking cessation can be very effective. but this population has specific needs that are not accounted for in generic smoking cessation interventions.

Aims:

This study aimed to identify components of behavioural change interventions for smoking cessation for people accessing substance use treatment services. These components include both general aspects of intervention design and delivery, as well as specific behaviour change techniques (BCTs). It also aimed to use a recovery-informed lens to assess acceptability of the components to people who would benefit from the intervention.

Methods:

Semi structured interviews were conducted with staff (n=9) and people accessing substance use treatment services (n=8) in the Northwest of the UK. This study also used secondary data from prior interviews with people in residential treatment (n=10), conducted as part of an earlier study. A two-stage deductive analysis was used to identify and code the BCTs that were mentioned in the interview transcripts, as well as any other relevant intervention components. These were all assessed using the APEASE criteria from the Behaviour Change Wheel approach, modified to prioritise acceptability to clients.

Results:

From the analysis, 15 specific BCTs and 10 broader recommendations were assessed as being appropriate components for smoking cessation interventions in this context. These have been grouped into two key areas: choice, agency and acceptability; and practicalities, including mode of delivery, setting, provider and timing.

Conclusion:

Context is an important consideration when designing interventions, and in order for an intervention to be successful, it needs to be acceptable to the people accessing it and those delivering it. This study considers a recovery-informed approach to identifying appropriate and acceptable aspects of interventions which can be used to produce more tailored interventions, enhancing both engagement and effectiveness.

Implementing a Smoking Cessation Service in Routine and Manual Workplaces: A Qualitative Service Evaluation

A. Talbot¹, N. Lindson¹, J. Taylor¹, A. Difeng Wu¹

¹University of Oxford, United Kingdom

Background

Routine and manual workers experience higher rates of cigarette smoking compared to those in managerial and professional occupations, contributing to health inequalities. Workplace smoking cessation interventions may be effective at increasing long-term abstinence in this population. However, there may be barriers to onsite delivery, and employee uptake can be low.

Aims

To understand the barriers and facilitators to implementation and employee uptake of a smoking cessation service implemented in routine and manual workplaces by a local council in England.

Methods

We carried out an evaluation of a routine and manual workplace smoking cessation service providing free behavioural support alongside free nicotine replacement therapies and e-cigarettes. We planned to interview employees and managers and assess cessation outcomes, but limited site responsiveness to participate in the evaluation resulted in a pragmatic sampling approach. This involved semi-structured interviews with a smoking cessation advisor, a wellbeing manager, a service coordinator, and a council programme officer. Data were analysed rapidly.

Results

Participants perceived that facilitators to implementation were persistent outreach to workplaces. This was supported by receiving an invitation from the council, which was seen as an authoritative source, and messaging on the potential benefits to the workplace.

Barriers included the difficulty of engaging the 'right' manager at the 'right' time to agree to service implementation, as well as managers mistakenly assuming that there would be a cost for their workplace. These recruitment challenges were compounded by the unfilled outreach worker role. This prevented rapport-building with local businesses and forced recruitment onto service coordinators who had limited capacity.

Uptake by employees was perceived to be limited by a lack of private clinic space. In addition, not sharing anonymised data on service uptake and cessation outcomes made it difficult for the manager to assess the service's impact and determine if it was worthwhile to maintain in the long-term.

Conclusion

This evaluation suggests that local council endorsement facilitated implementation of a workplace smoking cessation intervention, but the long-term sustainability of this programme may depend on building in time to build greater connections with local businesses, as well as providing managers with evidence of the service's impact.

Smoking Cessation

11:15 - 12:00

Changes in the population seeking support for tobacco cessation: patterns and implications for treatment

P. Selby¹, S. Veldhuizen¹, L. Zawertailo¹¹Centre for Addiction and Mental Health, Canada

Background

As the prevalence of smoking declines and developed-world populations age, the characteristics of people entering treatment for tobacco addiction are changing. Background shifts have occurred in substance use and other health behaviours; increasing age implies greater medical complexity; and people continuing to smoke may differ in other ways from those treated in the past.

Aims

Our objective was to quantify changes over an 11-year period in the population seeking treatment for tobacco cessation, with particular attention to variables important for clinical care.

Methods

We examined baseline characteristics of 215,004 enrolments in the Smoking Treatment for Ontario Patients program between 2014 and 2026. All participants smoked cigarettes daily and sought to quit tobacco. We tested variables separately for associations with enrolment date using mixed-effects models with random intercepts for clinic. We selected variables a priori from those influencing treatment outcome or medical decision-making.

Results

Mean age rose over the study period from 49.7y to 53.9y and the proportion 65+ from 13% to 24%. Due to the large sample, most tests were highly significant. Monthly use of cannabis (24.1% in 2014 to 39.1% in 2025) and daily use of e-cigarettes (2.3%→7.3%) rose while cigarettes per day (20.4→17.3), hazardous alcohol use (37.7%→25.5%) and opioid use (19.4%→11.6%) fell. All physical health conditions became more prevalent, as did anxiety disorders (42.6%→50.2%). The proportion setting a date for cessation fell sharply (64.2%→37.5%). Most changes were approximately linear over the study period.

Conclusion

An increasing proportion of patients are elderly and have comorbid conditions, requiring greater attention to medical issues and adding urgency to quit attempts. While fewer use opioids or drink heavily, more use cannabis and non-tobacco nicotine, and far fewer are prepared to set a specific date to quit, perhaps due to increased referral of ambivalent individuals. As having a quit date is strongly predictive of successful cessation, issues of motivation and scheduling require greater emphasis.



Improving an old treatment: dosing and titration of Nicotine Replacement Therapy

S. Veldhuizen^{1,2}, L. Zawertailo^{1,2}, P. Selby^{1,2}, A. Behal²

¹Centre for Addiction and Mental Health, Canada

²University of Toronto, Canada

Background

Nicotine replacement therapy (NRT) is the oldest successful pharmacological intervention for tobacco addiction. It is a form of agonist therapy that aims to switch people to a safer form of nicotine and then support gradual reduction. NRT is widely available without a prescription. Products include the long-acting transdermal patch and a variety of short-acting formulations (gum, lozenges, oral sprays, inhalers, pouches), which are mostly absorbed transmucosally.

NRT package inserts and dosing guidelines arose from the trials initially used to gain regulatory approval, and many NRT trials have provided either fixed doses to all participants or a small number of initial dose levels.

Aims

We examine associations between NRT dosing decisions and outcomes in a large observational dataset.

Methods

Using a sample of 84,667 treatment episodes, we evaluated the association between cigarettes per day (CPD) and NRT dose using descriptive methods and used mixed-effects logistic regression to identify associations between dose and outcome. We used fractional polynomials to fit non-linear associations and multiple imputation to address missing data.

Results

Prescribed initial NRT doses increased much less than proportionately with CPD. While most people who smoked lightly received doses consistent with full nicotine replacement, those smoking 20+ CPD had a median of about 1mg/CPD, which is usually lower than replacement. In our context, HCPs rarely titrated doses upwards at subsequent visits. Dose-response curves derived from our model showed that initial doses below about 2 mg/CPD/day were associated with poorer outcomes.

Conclusions

Under-dosing of NRT, both at treatment initiation and subsequent clinical contacts, is common among people who smoke heavily, and is likely to contribute to the poorer treatment outcomes seen among these individuals. Encouraging clinicians to consider full replacement doses (or ad libitum use of short-acting forms) and to use upwards titration in cases of partial response may improve clinical outcomes. Disseminating improved information on effective NRT use to people attempting cessation on their own may also be justified.



Baseline IgG1 Levels as a Candidate Predictive Biomarker of NFL-101 Efficacy in Smoking Cessation: A Post-hoc Analysis of the CESTO2 Phase II Randomized Controlled Trial

S.E. Lukas¹, N. Benhamouda², A. Besbes², J. Grouin³, B. Lafont⁴, Y. Plétan⁴, E. Tartour²

¹Behavioral Psychopharmacology Research Laboratory, McLean Hospital, Harvard Medical School, Boston, MA, United States

²Service d'immunologie biologique, plateforme d'immunomonitoring, Hôpital européen Georges-Pompidou, AP-HP, Paris, France

³University of Rouen, Rouen, Afghanistan

⁴NFL BIOSCIENCES, France

Introduction NFL-101 is a sterile aqueous denicotinized extract of tobacco leaves administered as two subcutaneous injections one week apart. In the Phase II CESTO2 trial, a dose of 100 µg of NFL-101 (n=108) significantly increased 4-week continuous abstinence (CA) confirmed by urinary cotinine versus placebo (n=101) (RR=1.87; p=0.038), with sustained risk ratios through 12 months. To inform the design of future confirmatory studies, this post-hoc analysis explored whether baseline IgG1 levels could identify a subgroup with enhanced response to NFL-101.

Methods Participants with available baseline IgG1 measurements were included (NFL-101 100 µg, n=106; placebo, n=98). A baseline IgG1 threshold below 200 ng/mL defined a biomarker-positive (BM+) and biomarker-negative (BM-) subgroup representing 57% and 43% of the cohort, respectively. CA was assessed over 4 weeks (D15–D43) and 12 months (D15–M12), confirmed by exhaled CO or urinary cotinine. The potential predictive value of the biomarker was assessed by comparing treatment effects across biomarker strata and considering biological plausibility.

Results In the overall population, NFL-101 showed significant benefit only on the cotinine-confirmed 4-week endpoint. In the BM+ subpopulation, treatment efficacy was substantially enhanced across all endpoints: CA rates were 36.1% versus 19.0% for placebo (RR=1.90; p=0.037) by CO, and 29.5% versus 12.1% (RR=2.44; p=0.019) by cotinine over 4 weeks, and 21.3% versus 10.3% (RR=2.06) by CO and 16.4% versus 6.9% (RR=2.38) by cotinine over 12 months, representing relative efficacy gains of ×1.22–1.36 across all timepoints. BM- patients showed negligible treatment effect at all timepoints. Placebo response was stable between subpopulations (absolute difference ≤1.2 percentage points), suggesting the enrichment was not driven by differential placebo response. Restricting enrollment to BM+ participants could reduce the required sample size by more than 50%.

Conclusions: This analysis suggests that baseline IgG1 may identify a subgroup with enhanced response to NFL-101 for smoking cessation, consistent with its immunomodulatory mode of action. Further evaluation as a candidate predictive biomarker is warranted. Enriching Phase III enrollment with BM+ patients could improve confirmatory development efficiency (higher effect size, lower sample size), and most importantly supports a more personalized approach to smoking cessation.



Readiness to Quit as a Predictor of Smoking Cessation: Evidence from The Botswana Smoking Abstinence Reinforcement Trial

S.V. Mokonopi¹, K. Ikgopoleng², L. Okui², R. Tapera^{3,4}, F. Bada^{5,6}, M. Zwinila², G. Tshisimogo⁷, R. Moumakwa⁷, G. Smith⁷, T. Molefhi⁷, S. Himelhoch⁸, M. Charurat^{9,10}, N. Ndwapi², B. Mbongwe^{3,11}

¹Botswana–University of Maryland School of Medicine Health Initiative, Gaborone,, Botswana

²Botswana–University of Maryland School of Medicine Health Initiative, Gaborone, Botswana

³School of Public Health, University of Botswana, Gaborone, Botswana

⁴Anti-Tobacco Network, University of Botswana, Gaborone, Botswana

⁵Division of Epidemiology and Prevention, Institute of Human Virology, University of Maryland School of Medicine, Baltimore,, United States

⁶Department of Epidemiology and Public Health, University of Maryland School of Medicine, Baltimore, United States

⁷Ministry of Health, Gaborone, Botswana

⁸Division of Biological Sciences, University of Chicago, Maryland Avenue, United States

⁹Division of Epidemiology and Prevention, Institute of Human Virology, University of Maryland School of Medicine, Baltimore, United States

¹⁰Department of Epidemiology and Public Health, University of Maryland School of Medicine, United States

¹¹Anti-Tobacco Network, University of Botswana, Gaborone, Botswana

Background: Tobacco use remains a significant public health concern in Botswana, particularly among people living with HIV (PLHIV). The Botswana Smoking Abstinence Reinforcement Trial (BSMART) evaluates the effectiveness of Screening, Brief Intervention, and Referral to Treatment (SBIRT) and varenicline using a stepped-wedge, hybrid type 2 effectiveness-implementation design. During the control phase, participants received enhanced standard care that included a single counseling session at enrollment and a self-help brochure. This study assesses whether baseline readiness to quit, measured by a readiness ruler, can predict smoking cessation outcomes.

Methods: We analyzed data from the control phases of the BSMART trial, following participants for 24 weeks. Baseline assessments included sociodemographic characteristics, nicotine dependence (Fagerström Test), readiness to quit (scale 1–10), and stage of change. The primary outcome was smoking cessation at Week 24, defined as a binary self-report outcome: Quit vs. Still Smoking. We used multivariable logistic regression to examine the association between baseline readiness to quit and cessation, adjusting for nicotine dependence and sociodemographic factors. Adjusted Odds Ratios (aORs) and 95% confidence intervals (CIs) were reported.

Results: Among 375 participants, 92.3% were male, with a mean age of 46 years (SD ± 10.4). Overall, 63.2% had secondary education or higher, and 45.0% were employed. Mean baseline readiness-to-quit, and nicotine dependence scores were 7.5 (SD ± 1.9) and 4.3 (SD ± 2.2), respectively. Retention at Week 24 was 97%. Higher baseline readiness to quit was significantly associated with increased odds of smoking cessation (aOR 1.16, 95% CI 1.01–1.32, $p=0.031$). Conversely, higher nicotine dependence correlated with lower odds of cessation (aOR 0.85, 95% CI 0.76–0.96, $p=0.007$). Notably, participants with secondary education or higher demonstrated lower odds of cessation compared to those with lower education levels (aOR 0.55, 95% CI 0.33–0.90, $p=0.017$). No significant associations were found between cessation outcomes and stage of change, age, sex, or employment status.

Conclusion: Baseline motivation, measured by a simple readiness ruler, independently predicts smoking cessation among PLHIV. Integrating motivational assessments into routine care can help identify individuals likely to benefit from cessation interventions and emphasizes the need to address nicotine dependence for improved outcomes.



What Drives Engagement in Text-Based Smoking Cessation Intervention?

V. Chavez Uceda¹, R. Russi Ervilha¹, R. Caballero², J. Ramos-Santiago¹, R. Orfin¹, L. Martins³, A. Chavez-Iniguez¹, Z. Xie¹, D. Li¹, N. Jiang¹, F. Cartujano-Barrera¹, P. Cupertino¹

¹URMC, United States

²Fundación Huésped, Argentina

³Pontifical Catholic University of Rio de Janeiro, Brazil

Background: Among Latino smokers, who have high rates of text messaging use, engagement with culturally tailored mobile interventions is critical to improving smoking cessation outcomes. However, engagement patterns with interventions grounded in behavioral change theory and delivered through dynamic messaging and conversational support remain understudied.

Objective: To characterize engagement patterns with a text message-based smoking cessation intervention across thematic content domains and to identify sociodemographic and clinical predictors of engagement.

Methods: We analyzed engagement data from 227 Latino smokers enrolled in a 24-week randomized controlled trial comparing Decidetexto with standard care. Decidetexto is a bilingual (English/Spanish), culturally tailored, interactive text messaging intervention for smoking cessation. Participants received 712 messages across 10 thematic domains: education, logistics, intra-treatment social support, coping with triggers, extra-treatment social support, stimulus control, vicarious experience, relapse prevention, social norms, and rewards. Engagement was defined as participant-initiated free-text responses to intervention messages and categorized by theme. Therapeutic alliance, measured by participant-reported trust and perceived engagement with the intervention, was also assessed as a complementary proxy of engagement. Domain-specific engagement rates were calculated as the proportion of participants responding to messages within each theme.

Results: Participants sent 10,437 text messages during the 24-week program, with a median of 24 messages (IQR=10–51). Mean participant age was 50 years; 44.1% were male, 70.9% preferred Spanish, and 52.9% were heavy smokers. Logistics messages produced the highest engagement rate (15%), followed by intra-treatment social support (12%) and social norms (12%). Vicarious experience messages yielded the lowest engagement (6%). Participants aged 51–56 years and ≥56 years sent a mean of 60 and 55 messages, respectively, compared with 33–35 among younger age groups. Male participants demonstrated higher engagement than females (54 vs. 40 messages).

Conclusions: Engagement with a culturally and linguistically tailored smoking cessation text messaging intervention varied by message theme and participant characteristics. Future work will focus on developing a latent engagement construct incorporating multiple engagement markers and evaluating its association with smoking cessation outcomes. These findings highlight opportunities to refine message content and tailor intervention delivery to maximize engagement and impact among Latino smokers.



Examining changes in smoking behavior and attitudes following a novel decision aid intervention combined with counseling

C. Duffy¹, H. Anaba¹, O. Diala¹, R. Oladimeji¹, S. Strayer¹

¹Virginia Commonwealth University, United States

Background: Many individuals who use both cigarettes and e-cigarettes (i.e., dual users) are interested in reducing or quitting their use of one or both tobacco/nicotine products. Dual users are more likely to report a past-year quit attempt compared with those who use cigarettes only (AOR=1.90, 95% CI 1.11–3.24). However, dual users often receive unclear guidance on strategies for quitting smoking and/or switching to e-cigarettes, potentially hindering their success. Moreover, only 1.4% of dual users successfully quit both products within a year.

Aims: To evaluate an intervention combining a virtual decision aid with telehealth counseling.

Methods: In this single-arm feasibility trial, participants completed a virtual decision aid based on motivational interviewing with information about the relative benefits and harms of e-cigarettes. After the decision aid, participants participated in 5 telehealth counseling sessions. This study included a sample of adult dual users who responded to advertisements for tobacco research in Richmond, VA, USA. Participants completed surveys assessing cigarette/e-cigarette use and attitudes pre-decision aid, post-decision aid, and 1 and 3 months after the full intervention. We used paired-samples t-tests to compare confidence and readiness to quit smoking pre- vs. post-decision aid. We used repeated-measures ANOVA to compare use of cigarettes and quitting/switching attitudes pre-intervention to 1 and 3 months post-intervention.

Results: 72 participants completed the decision aid. 17 completed the full intervention, reporting mean age of 33.2 years. The majority of participants were Black (52.9%) and female (64.7%). Participants reported greater confidence (Mean=6.84) and readiness to quit smoking post-decision aid (Mean=7.14) vs. baseline (Mean=6.21; Mean=6.24), [confidence: $t(70)=2.85$, $p=.006$], [readiness: $t(70)=3.52$, $p<.001$]. Respondents smoked significantly fewer cigarettes per day three months post-intervention (Mean=3.18) and one month post-intervention (Mean=4.82) than they did at baseline (Mean=9.88), [$F(1,16)=10.93$, $p<.001$]. Among those who completed the full intervention ($n=17$), 29.4% ($n=5$) had not smoked a cigarette in the last 3 months; 5.9% ($n=1$) had not used a cigarette or e-cigarette.

Conclusion: This study demonstrated feasibility and preliminary estimates of efficacy for a novel intervention to reduce cigarette use and/or switch to e-cigarettes. Subsequent research should evaluate efficacy and generalizability in larger samples and diverse populations.



Determinants of Long-Term Smoking Abstinence in Canada: Insights from A Re-Engagement Survey

T. Gelibo¹, J. Heshmati¹, S. Mahmoodianfard¹, E. Quirouette¹, K. Mullen¹, M. Coja¹, H. Mir^{1,2}

¹University of Ottawa Heart Institute, Canada

²Faculty of Medicine, University of Ottawa, Ottawa, Ontario, Canada

Background: Long-term smoking abstinence is essential for reducing morbidity and mortality. Although many individuals attempt to quit, relapse remains common. Understanding the determinants of sustained cessation is vital for strengthening programs. The Ottawa Model for Smoking Cessation (OMSC) is a widely implemented, evidence-based intervention across Canadian healthcare settings, evidence on long term outcome is limited.

Aims: To assess long-term smoking abstinence among former OMSC participants and identify predictors associated with it.

Methods: A re-engagement survey was conducted to 1,718 previous OMSC participants to determine their current smoking status after program completion. Long-term abstinence was self-reported. Multivariable logistic regression examined associations between long-term abstinence and sociodemographic factors, program engagement, satisfaction with services, and service setting. Adjusted odds ratios (aOR) and 95% confidence intervals (CI) were calculated.

Results: The mean age of participants was 60.03 years (SD = 12.64), and the majority (79.7%) were aged 50 years or older. The median time of follow-up was 11.6 months (Interquartile Range (IQR): 5.6–17.3).

Respondents demonstrate high overall satisfaction with the OMSC program (M = 8.14, SD = 2.05) and a strong likelihood of recommending it to others (M = 8.70, SD = 2.15). Overall, 39.9% (95% CI 37.6–42.2) reported abstinence. Younger age was associated with higher odds of abstinence (18–34 years: aOR 2.22, 95% CI 1.14–4.32; 35–49 years: aOR 1.70, 95% CI 1.08–2.69). Greater engagement with the OMSC significantly increased the likelihood of long-term abstinence (medium engagement: aOR 2.50, 95% CI 1.30–4.80; high engagement: aOR 4.52, 95% CI 2.33–8.77). High program satisfaction (aOR 2.50, 95% CI 1.07–5.87) and receiving inpatient-based cessation support (aOR 1.73, 95% CI 1.27–2.37) were also strong predictors. Unemployment (aOR 0.35, 95% CI 0.15–0.80) and disability status (aOR 0.43, 95% CI 0.25–0.73) were associated with lower abstinence.

Conclusions: Long-term abstinence among OMSC participants is strongly influenced by engagement with the clinical, programmatic and individual factors. These findings underscore the importance of sustained, patient-centered support and the need for targeted approaches for socioeconomically disadvantaged groups.

Strengthening long-term engagement within cessation systems may enhance the cardiovascular prevention impact of national smoking cessation programs.



Insights of Users' Experience of the National Tobacco Dependence Service in England: A Qualitative Study

M. Patterson¹, M.R.J. Aquino¹, B. Senior¹, F. Watson², S.E. Ramsay¹, E.F. Kaner¹

¹Newcastle University, United Kingdom

²Tees, Esk and Wear Valleys NHS Foundation Trust, United Kingdom

Background

Tobacco remains a major driver of health inequalities. In the English National Health Service (NHS), tobacco users within acute, mental health and maternity settings are offered Tobacco Dependence Services (TDS) to quit (e.g., free Nicotine Replacement Therapy, behavioural support). Understanding tobacco users' experiences of receiving TDS, including mechanisms shaping engagement and behaviour change, are essential for optimising delivery and meeting the needs of those most vulnerable to tobacco harms.

Methods

Qualitative interviews with purposefully sampled tobacco users, drawn from a mixed-methods evaluation of TDS delivered in the English NHS. Data were analysed framework analysis, informed by the Theoretical Framework of Acceptability.

Findings

Between 2023-2025, we interviewed patients in acute, maternity, and mental health NHS settings who either accepted (n=53), declined (n=8) or were not offered (n=2) the service. Five themes were identified. Smoking identities and contexts described how smoking was shaped by familial histories, social norms, and habitual coping practices. Hospitalisation disrupted these patterns, creating a temporary window of opportunity for reflection. Motivation and readiness for change highlighted deteriorating health, pregnancy, family responsibilities, and financial pressures as catalysts for engagement, with many participants describing a shift in self-perception from "smoker" to "patient in recovery." Patient experience and engagement with the service highlighted the value of empathetic, knowledgeable Tobacco Dependence Advisors, whose lived experience often enhanced trust and service engagement. Mechanisms of behaviour change demonstrate how Nicotine Replacement Therapies (including e-cigarettes/vapes) were considered vital for supporting their quit and managing cravings. Embedding the Tobacco Dependence Service in Secondary Care demonstrates the perceived value of TDS in secondary care pathways, alongside recommendations for improved consistency service initiation and implementation across multiple admissions (particularly in mental health settings), clearer post-discharge support and greater visibility of the service within hospital settings.

Conclusion

Findings demonstrate that high-quality, patient-centred TDS can be embedded within secondary care and is acceptable to those who use it. Destigmatising tobacco dependence, personalising support and ensuring accessibility of adequate resources (e.g., provision of smoking cessation aids) can support behaviour change and reduce inequalities.



Feasibility and Acceptability of Home-Based Transcranial Direct Current Stimulation Combined with Varenicline for Smoking Cessation

K. Doray^{1,2}, K. Iturralde^{1,2}, V. Tang^{1,2}, O. Melamed^{1,2}, P. Selby^{1,2}, L. Zawertailo^{1,2}, S. Veldhuizen², T. Rajji², W. Wang²

¹University of Toronto, Canada

²Centre for Addiction and Mental Health, Canada

Background:

Although evidence-based smoking cessation interventions exist, their long-term effectiveness is limited. Transcranial direct current stimulation (tDCS) is a non-invasive brain stimulation technique that targets the prefrontal cortex, enhancing cognitive control and reducing craving, showing promise as an adjunctive treatment for nicotine dependence. However, the feasibility and acceptability of home-based tDCS delivery in smoking cessation populations remain underexplored.

Aims:

To evaluate the feasibility and acceptability of home-based tDCS delivered in combination with varenicline within an ongoing randomized controlled trial (RCT) for smoking cessation.

Methods:

This study is embedded within a double-blind, sham-controlled RCT examining tDCS combined with varenicline. Feasibility outcomes included recruitment rate, retention, adherence, and safety. Recruitment was defined as the rate of participant enrollment, with a benchmark of ≥ 3.5 participants per month based on a target of 160 participants over 45 months, as per the RCT protocol. Retention was defined as the percentage of participants completing the daily tDCS sessions (benchmark $\geq 80\%$). Adherence was defined as the percentage of prescribed daily tDCS sessions completed (benchmark $\geq 80\%$). Safety was defined as the occurrence of serious device-related adverse events. Acceptability was assessed using the Acceptability of Intervention Measure (AIM), an 11-item survey rated on a 5-point Likert scale, with high acceptability defined as $\geq 70\%$ of participants rating items as 1 (strongly agree) or 2 (agree). Optional open-ended responses were collected to capture qualitative feedback.

Results:

As of March 2026, 65 participants have been enrolled over 12 months, depicting a recruitment rate of 5.4 participants per month, exceeding the target rate. Among enrolled participants, 55 (85%) completed their home-based tDCS sessions. Adherence was high, with a mean completion rate of 97% of prescribed sessions. No serious device-related adverse events have been reported. Acceptability data collection is ongoing and will be presented.

Conclusion:

Preliminary findings suggest that home-based tDCS combined with varenicline is feasible and well-tolerated in a smoking cessation population. Ongoing analyses will evaluate acceptability and further investigate the potential for remote tDCS to improve accessibility and implementation of smoking cessation treatments.

Policy

15:15 - 16:00

Public Perception and Acceptability of Tobacco Control Policies in South Korea (2023–2025): Focusing on E-Cigarettes, Flavored Tobacco, and Pricing

s. shin¹, J.E. Kim¹¹Korea Health Promotion Institute, South Korea

Background

Currently, South Korea is experiencing a rise in electronic cigarette use relative to conventional cigarette smoking rates, alongside expanding marketing for flavoured tobacco products targeting adolescents and women. To address these shifts, relevant legislation was amended in April 2026, expanding the legal definition of regulated tobacco from traditional "conventional cigarettes" to encompass both heated tobacco products (HTPs) and e-cigarettes (ECs). To establish effective policy support strategies within this evolving environment, analysing trends in public perception is critical at this juncture.

Methods

From 2023 to 2025, annual surveys on tobacco control policies and harm perceptions were conducted among adults (annual N = 1,000–1,200) using structured online questionnaires. The study analysed year-over-year trends in harm perceptions regarding e-cigarettes and flavoured tobacco, as well as the acceptability of major tobacco control policies.

Results

From 2023 to 2025, there was a marked increase in the perception of harm associated with e-cigarettes. The proportion of respondents who believed that e-cigarettes were as harmful as conventional cigarettes rose from 73.5% to 83.5%, representing a 13.61% increase. Similarly, the proportion of respondents who believed that e-cigarettes did not assist with cessation increased from 77.7% to 83.7%, indicating a 7.72% rise. In contrast, the harm perception of flavoured tobacco slightly declined from 84.2% to 82.7%, representing a 1.78% decrease. Concurrently, public support for increasing the price of tobacco products rose notably from 69.4% to 76.2% (a 9.8% increase), signifying the most substantial growth rate among the eight evaluated policy domains.

Conclusions

The short-term escalation of public risk awareness regarding e-cigarettes represents a significant achievement. Nevertheless, the decline in flavoured tobacco harm perception highlights a critical new policy challenge. Future tobacco control strategies must establish clear directions for regulating flavoured tobacco and leverage the growing public consensus on price increases to secure a regulatory foundation aligned with global standards.



Tobacco Industry CSR activities in Poland in the years 2019-2024

P. Dera¹, M. Banach¹, J. Majchrzak¹, K. Klimiuk¹, M. Parascandola², O. Kalinowska-Beszczynska¹, Ł. Balwicki¹

¹Medical University of Gdansk, Poland

²Center for Global Health - National Cancer Institute, United States

Introduction: The tobacco industry often engages in corporate social responsibility (CSR) initiatives to improve its public image despite the health harms caused by its products. In Poland, where direct advertising of tobacco is banned, CSR has become a strategy for tobacco companies to maintain influence in society.

Methods: We conducted a comprehensive review of publicly available information on CSR-related activities by the four largest tobacco companies in Poland (Philip Morris Polska, British American Tobacco Polska, Japan Tobacco International Polska, Imperial Tobacco Polska) from late 2019 through 2024. Sources included legal documents, government and local government websites, media reports, and the companies' social media, following a protocol aligned with the 6th recommendation of the Guidelines for Implementation of Article 5.3 of the WHO Framework Convention on Tobacco Control (WHO FCTC).

Results: We identified multiple forms of tobacco industry CSR engagement. Tobacco companies participated in policy discussions (including informal meetings with policymakers and input into legislative consultations), formed partnerships with public schools and universities (e.g. funding scholarships, equipment, and internships), and collaborated with government agencies (through agreements and training sessions focused on combating illicit trade). They also undertook philanthropic activities such as providing pandemic-related aid. These CSR actions were frequently framed as benevolent, but served to promote the industry's interests.

Conclusion: In Poland, the tobacco industry CSR activities create a conflict of interest with public health goals. Strengthening the implementation of WHO FCTC Article 5.3 and increasing awareness among officials and institutions are necessary to protect policymaking from the tobacco industry influence.

A systematic review and synthesis of qualitative research on stakeholder views on commercial tobacco endgame goals and policies

K. Morphet^{1,2}, A. Holland^{1,2}, G. Lai^{1,2}, R. Canty^{2,3}, C. Puljevic^{1,2}, J. Trigg^{2,3}, J. Hoek^{2,4}, R. Edwards^{2,3}, C. Gartner^{1,2}

¹School of Public Health, The University of Queensland, Australia

²NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame, Australia

³Flinders Health & Medical Research Institute and College of Medicine & Public Health, Flinders University, Australia

⁴ASPIRE Aotearoa Research Centre, University of Otago, New Zealand

Background: As more countries and local jurisdictions set commercial tobacco endgame goals, evidence on stakeholders' views about endgame policies has expanded.

Aim: We reviewed and synthesized evidence from qualitative studies on stakeholders' views about tobacco endgame goals and policies.

Methods: A systematic review of articles published until 20 August 2025 was conducted using seven academic databases: PubMed, Web of Science, CINAHL, Embase, Medline, Scopus and ProQuest Dissertations and Theses Global. We supplemented these searches with a grey literature search. Studies reporting qualitative data on stakeholders' attitudes, beliefs, or knowledge about one or more tobacco endgame goals or policies were included. Stakeholders included members of the public, retailers, and government or NGO representatives. Data were analysed using a thematic synthesis approach.

Results: The searches returned 5,970 unique articles that were screened, with 46 meeting the inclusion criteria. Most studies were conducted in Aotearoa/New Zealand and the US, with few in other countries (UK=4, Australia=3, India=3, Nigeria=1, Finland=1, Lebanon=1), and two focusing on regions (Europe and sub-Saharan Africa). Several studies (n=9) purposively recruited specific populations, including First Nations Peoples (n=5), people with a low income (n=2), people experiencing alcohol or other drug dependence (n=1), and people experiencing anxiety or depressive disorders (n=1). The most common policies explored were nicotine reduction and retail restrictions. Six overarching themes were identified: 1) values and philosophy, 2) beliefs about tobacco and addiction, 3) communication strategies and narrative, 4) comparison with other products and policies, 5) barriers and facilitators to implementation, and 6) practical implementation considerations.

Conclusions: There is limited research on stakeholders' views of endgame policies on institutional focused policies (e.g., 'polluter pays' levy on tobacco companies), and evidence on stakeholder views of endgame policies from low-and-middle income countries is lacking. Addressing potential barriers identified by stakeholders may increase the feasibility of introducing and maintaining tobacco endgame policies.



Messaging a Tobacco-Free Future: A Scoping Review of Endgame Communication Strategies

K. Morphet^{1,2}, G. Lai^{1,2}, J. Hoek^{2,3}, C. Gartner^{1,2}

¹School of Public Health, The University of Queensland, Australia

²NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame, Australia

³ASPIRE Aotearoa Research Centre, University of Otago, New Zealand

Background: Tobacco endgame policies, such as tobacco-free generation, retail restrictions, and denicotinisation of tobacco products, are progressing or have been proposed in several jurisdictions. How endgame policies are communicated to the public are likely to influence public understandings, attitudes and support concerning these policies.

Aim: This scoping review aimed to synthesise the evidence on communication strategies for the tobacco endgame concept or specific endgame policies.

Methods: We searched PubMed, Embase, CINAHL, Web of Science, Scopus, and Proquest for relevant peer-reviewed publications until January 2025, and the grey literature. Studies were eligible for inclusion if they discussed how to communicate or frame messages about the tobacco endgame and endgame policies. Studies that solely explored attitudes towards endgame policies were excluded if they did not discuss or provide empirical evidence on communication strategies.

Results: Twenty-eight peer-reviewed publications met the inclusion criteria. Most focused on a very low nicotine content standard (n=26), with one on ending the commercial sale of tobacco products, and one commentary on the general topic of a tobacco endgame. Most studies (n=22) were conducted in the US. There was variation in the smoking status of study participants. Publications reported the findings of randomised experimental studies (n=12) discrete choice experiments (n=3), cross-sectional surveys (n=3) and qualitative research (n=5). There was wide variation between the studies in how denicotinisation was explained or portrayed to participants. Results revealed misperceptions about the policy that influenced how messages were received. Commonly reported limitations were the reliance on convenience samples, which reduced the generalisability of findings; the use of single-message exposures, which may not reflect real-world communication contexts where target audiences are typically exposed to multiple or repeated messages over time; and the measures of anticipated future tobacco use behaviours or intentions, which may not accurately predict actual behaviour.

Conclusions: There is a growing evidence base on communicating about denicotinisation of tobacco but a lack of research on optimal communication strategies for other tobacco endgame strategies. Future research should explore communication strategies for reducing retailer density and other potential reforms to tobacco supply, including the tobacco free generation policy.



Documenting smoking regulations in municipalities – A Mapping Analysis of Smoke- and Aerosol- Free Policies in the Northern Region of The Netherlands

J. Meszaros¹, D. Mollet¹, M. van Cauwenberghe², K. Gali^{3,4}

¹Groningen Centre for Health Law, Faculty of Law, University of Groningen, Netherlands

²Department of Transboundary Legal Studies, Faculty of Law, University of Groningen, Netherlands

³University of Hamburg, Hamburg Center for Health Economics, Germany

⁴Cancer Epidemiology and Prevention Group, University Cancer Center Hamburg, University Medical Center Hamburg-Eppendorf (UKE), Germany

Background

Smoke- and aerosol-free environments (SAFEs) are increasingly central to public health policy, yet little is known about how municipal health policies address the full range of smoking products, including novel and emerging tobacco and nicotine products (NETNPs) such as e-cigarettes and heated tobacco products. This study examines how municipalities in the Northern Netherlands incorporate smoking products and location-based restrictions into their health policies.

Methods

A policy document analysis was conducted across the 40 municipalities in the three provinces of the Northern Netherlands (Groningen, Drenthe, and Friesland). Health policy documents were retrieved through online search and direct municipal contact between October 2024 and October 2025. Current and past policies were analyzed to assess temporal developments in policy language. Documents were coded for mentions of location restrictions, risks of secondhand smoke and aerosol exposure, and protections for children. Coding accounted for product specificity (distinguishing between smoke and aerosol) and the explicitness of location designations.

Results

A total of 63 health policies were coded (36 current, 27 past). Product mentions evolved significantly: while no past policies mentioned e-cigarettes, 6 current policies did; heated tobacco products appeared in only 1 current policy. Location restrictions increased from 8 policies in the past period to 29 in current policies. In current policies, educational institutions (n=20) and parks/recreational areas (n=19) were the most frequently specified locations. Mentions of health risks from secondhand smoke and/or aerosol exposure rose from 4 to 20 policies, and child protection mentions increased from 7 to 21. The SAFEs score revealed variation in policy comprehensiveness, with Friesland averaging 3.84, Groningen 3.19, and Drenthe 2.13. Top-scoring municipalities included Groningen (6.5) and De Friese Meren (6.5).

Conclusions

Municipal health policies in the Northern Netherlands have become significantly more comprehensive in addressing smoke- and aerosol-free environments over time. However, explicit restrictions on NETNPs remain limited, and policy comprehensiveness varies by province. These findings highlight opportunities for municipalities to strengthen product-specific language and expand location restrictions.

Money and Murder: Prosecuting Tobacco Companies for Homicide to Bring About the Tobacco Endgame

F. Berardi¹, C. Gartner¹, R. Ivory², R. Wallis²

¹University of Queensland School of Public Health, Australia

²University of Queensland TC Beirne School of Law, Australia

Background: Smoking is one of the biggest public health threats in the world, accounting for approximately eight million deaths annually. However, the global tobacco industry continues to prosper despite public awareness of the harms associated with cigarettes. Scientific studies and the tobacco industry's internal document disclosures show that tobacco companies have long known that nicotine is addictive and smoking causes pre-mature death. Further, tobacco companies have specifically marketed their products towards vulnerable populations, creating inequitable health outcomes.

Aims: This research examines the extent to which tobacco companies can be prosecuted for homicide offences including murder, manslaughter, and industrial manslaughter for consumer deaths to advance the tobacco endgame. In doing so, this research undertakes to assess the extent to which parties to the FCTC can further their obligations under Article 19.

Methods: The murder and manslaughter laws in common law jurisdictions were analysed and compared. Then a case analysis was conducted to ascertain the meaning of ambiguous legal terms in homicide statutes. Afterwards, a review was undertaken to identify tobacco company conduct that may be able to satisfy the elements of the respective homicide statutes. Specific attention was given to the issue of causation and the extent to which tobacco company conduct could be found to be both a factual cause and legal cause of death. These data were compiled to draw conclusions about the prospect of prosecuting tobacco companies for homicide offences generally. Comparisons were further made between different types of homicide offences.

Results: Prosecuting tobacco companies for homicide offences is unlikely to be successful in most common law jurisdictions. Prosecution for industrial manslaughter likely has the strongest probability of succeeding. Policy change would be needed to improve the strength of criminal action against the tobacco industry.

Conclusion: This research highlights challenges with achieving the goals of Article 19 of the FCTC but illustrates how those obligations could be met in the future to further the tobacco endgame.

Challenges to Applying the Criminal Law to the Tobacco Endgame: A Comparative Analysis of Divergent Legal Systems in Europe and Australia

F. Berardi¹, C. Gartner¹, R. Ivory², R. Wallis²

¹University of Queensland School of Public Health, Australia

²University of Queensland TC Beirne School of Law, Australia

Background: Tobacco companies have faced allegations globally for fraud and financial impropriety, cartel conduct, organised criminal associations, and crimes against the person. None of these allegations have resulted in a successful criminal lawsuit against a tobacco company anywhere in the world despite overwhelming evidence of the companies' misdeeds.

Aims: This research seeks to identify challenges to applying the criminal law to further the tobacco endgame through a comparative analysis of corporate criminal attribution in Australia and Europe. Further, this study aims to assess the extent to which differing legal systems result in different outcomes regarding the possibility of corporate criminal prosecution.

Methods: A review was conducted of corporate criminal responsibility frameworks in all Australian jurisdictions as well as the United Kingdom, and to some extent, other European nations. Comparisons were made between statutory corporate criminal attribution and attribution at common law. A case review was undertaken to discern the practical application of these laws. In circumstances when a jurisdiction had no applicable case law, a literature review was conducted to extrapolate a more theoretical application of the relevant laws. Conclusions were drawn about the application of these laws to tobacco companies and the tobacco endgame, weaknesses in ascertaining tobacco companies' states of mind, and reasons why tobacco companies may evade criminal prosecution. Finally, comparisons were made between the inequitable effects of jurisdictions having adopted starkly different corporate criminal laws.

Results: Tobacco companies have largely avoided prosecution for any criminal offence because there are no corporate criminal attribution frameworks that have accounted for the size and sophistication of the global tobacco industry. This results in these laws operating effectively against smaller product distributors but not against the large multinational organisations. This highlights inherent weakness in relying on criminal law to further the tobacco endgame.

Conclusion: Corporate criminal laws in Australia and Europe are inadequate at responding to tobacco company misconduct. Reform is needed to these legal frameworks if the criminal law is to be used to further the tobacco endgame.

Examining Consent to Harms Due to Tobacco in British Common Law Countries and the Role of Addiction

F. Berardi¹, C. Gartner¹, R. Ivory², R. Wallis²

¹University of Queensland School of Public Health, Australia

²University of Queensland TC Beirne School of Law, Australia

Background: Tobacco usage is associated with disease in virtually every organ system, making it arguably the single most dangerous product legally available. Nicotine further transforms tobacco into one of the most addictive products on the consumer market, comparable to illicit drugs like heroin. The majority of people who attempt to quit smoking relapse, and long-term quit rates are below five per cent. Despite these facts, tobacco companies argue that smoking is a choice, and people's lack of free will, as opposed to nicotine, is responsible for a failure to stop smoking.

Aims: This research considers the extent to which people can legally consent to the harms associated with tobacco and the extent to which addiction may vitiate any ability to consent.

Methods: A case review was undertaken to identify precedents dealing with consent to harm in British common law countries. These cases were analysed to draw conclusions about general rules regarding the extent to which people can consent to harm and any limits to that consent. Next, a literature review on addiction was conducted to contextualise the findings from the case review and apply the common law to tobacco companies. Finally, statutory laws were considered to the extent they change the application of common law within the tobacco context.

Results: Under the current legal regimes in British common law countries, it is likely that a court would find tobacco consumers capable of consenting to the harms associated with smoking. This is because the harms of tobacco are well known, and it is unlikely addiction could constitute a barrier to legally establishing free choice.

Conclusion: Addiction may provide the strongest case that tobacco consumers cannot legally consent to the harms associated with tobacco. This is, however, unlikely to vitiate their ability to consent. Nonetheless, jurisprudence remains conflicted on this issue, signalling the need for legislatures to provide clarification to guide judicial action.

Trust in Government and Public Support for Tobacco Endgame Policies: Evidence from Black Americans

K. Sterling¹, J. Garmon¹, C. Ntansah¹, A. Atunbilek¹, A. Johnson¹, O. Ganz¹, O. Wackowski¹, C. Fryer², A. Villanti¹

¹Rutgers University Institute for Nicotine & Tobacco Research, United States

²University of Maryland at College Park School of Public Health, United States

Background. Trust in government is a critical determinant of credibility and uptake of population-level tobacco endgame policies. Disinformation impedes regulatory efforts and evidence-based policymaking worldwide. In the United States, the Food and Drug Administration proposed banning menthol cigarettes (MC) and flavored cigars (FC), an endgame-oriented strategy increasingly adopted internationally. These products disproportionately harm Black Americans while tobacco companies disseminate misleading narratives in Black communities to sustain profits and mobilize opposition, a pattern documented globally. Black Americans report lower federal government trust due to structural racism, a dynamic shared by populations marginalized through colonialism and structural inequality.

Aims. We assessed how trust in government and beliefs about MC/FC bans shaped policy support among Black Americans.

Methods. We surveyed a national sample of 823 Black Americans aged 18 years and older, using linear regression models to examine associations among trust in the federal government, MC/FC ban beliefs, policy support, and engagement behaviors. Path models tested whether beliefs mediated relationships between trust and policy support, with pro- and anti-ban engagement modeled as downstream outcomes.

Results. 40% reported low trust in the federal government, reflecting institutional mistrust among marginalized populations worldwide. Over 40% supported MC/FC bans, indicating a meaningful, though conditional, endorsement. Trust in government was positively associated with policy support ($b = 0.19$, $p = .001$) and pro-ban engagement ($b = 0.05$, $p = .03$). Path analyses showed beliefs strongly predicted policy support ($\beta = 0.50$, $p < .001$), while trust exerted an independent direct effect ($\beta = 0.14$, $p = .001$). Policy support predicted pro-ban engagement ($\beta = 0.13$, $p = .002$). Beliefs were negatively related to anti-ban engagement ($\beta = -0.13$, $p = .003$), suggesting that stronger pro-ban beliefs were associated with lower anti-ban engagement. The total effect of federal trust on policy support remained significant ($\beta = 0.17$, $p = .001$).

Conclusions. Beliefs that flavor bans could reduce tobacco-related harms predicted policy support, while concerns regarding illicit markets and enforcement highlighted equity-relevant implementation challenges, as mirrored internationally. Countering industry disinformation and strengthening institutional trust may be critical for advancing equitable tobacco endgame policies across diverse political and regulatory contexts.

Support for Tobacco Control Policies and Associations with Smoking Harm Perceptions among US Adults who Smoke and Youth

M. Mercincavage^{1,2}, D. Giovenco³, C. Delnevo², O. Wackowski^{2,4}

¹Rutgers Robert Wood Johnson Medical School, United States

²Rutgers Institute for Nicotine and Tobacco Studies, United States

³Columbia University Mailman School of Public Health, United States

⁴Rutgers School of Public Health, United States

Introduction: Public support for tobacco control policies can increase their likelihood of adoption, but may be influenced by tobacco-related misperceptions. We assessed public support for different cigarette-focused tobacco control policies proposed in the United States among US adults who smoke and youth. We also explored associations of policy support with perceived harm and addictiveness of smoking.

Methods: Data were drawn from an online survey conducted in late 2024 with nationally representative samples of adults who smoke ($n = 1575$) and youth aged 15-20 ($n = 1039$). Participants reported their support (i.e., oppose, not sure, support) for four tobacco control policies: requiring pictorial warnings on cigarette packs, requiring tobacco retailers to post quitline signs, banning menthol cigarettes, and reducing nicotine in cigarettes to non-addictive levels. Participants also reported their perceptions of how harmful and addictive cigarette smoking is (1 = not at all, 5 = extremely). T-tests and chi-square analyses compared samples on continuous and categorical outcomes; Pearson correlations examined associations between policy support and harm perception measures.

Results: Across the full sample, policy support was greatest for requiring tobacco retailers to post quitline signs (61.7%) and reducing nicotine in cigarettes (61.3%), followed by implementing pictorial warnings (59.7%); banning menthol cigarettes received the least support (32.8%). For all policies, support was higher among youth vs. adults who smoke (p 's $< .001$). Uncertainty was also prevalent in both groups (22.5 – 32.1% overall). Compared to adults who smoke, youth perceived greater harms (M 's = 4.5 vs. 4.0, $p < .001$) and addictiveness (M 's = 4.3 vs. 4.1, $p < .001$) from smoking. Perceived harms and addictiveness were positively associated with support for each policy overall and among both groups (p 's $< .001$).

Discussion: Among a nationally representative sample of US adults who smoke and youth, support was generally high for tobacco control policies except banning menthol cigarettes, although support was lower among adults who smoke. Given that cigarette harm perceptions were positively associated with policy support, educational efforts that improve the public's understanding of cigarette risk and addictiveness may yield greater public support for emergent policy approaches.



A Kuhnian Analysis of Nicotine and Tobacco Research

J. Gitchell¹

¹Pinney Associates, Inc., United States

In 1962, TS Kuhn published *The Structure of Scientific Revolutions*. He argued that fields of scientific inquiry do not advance predictably or linearly but rather progress by “normal” periods punctuated occasionally by interregnums of intense disruption and uncertainty. Essentially, better methods and more observations become harder and harder to “fit” within the existing paradigm but the incumbent research community resists abandoning its established framework. We argue that the field of tobacco and nicotine research entered a period of intense disruption in the mid-2000s but has yet to complete a paradigm shift to resolve current major disputes regarding evidence and its interpretation.

From the same time as Kuhn’s book first appeared, the field of tobacco research adopted a paradigm or lens through which to consider all scientific and policy findings: the “scream test,” meaning that “good and accurate” evidence and conclusions should cause the tobacco industry to “scream.” And reciprocally, findings that the industry “likes” must be false and untrustworthy. This heuristic fit when cigarettes were the dominant product from “the industry”, but with the increasing heterogeneity within “the industry” and the nicotine market, this lens yields increasingly inaccurate and unreliable judgments on evidence.

We will review specific moments to support my argument, focused on how the field has reacted to various findings around the continuum of risk across nicotine products. Examples include the EU ban on snus, Sumner’s 2003 paper in *Tobacco Control* on substituting cigarettes with “clean” nicotine inhalers, the fate of the 2nd Strategic Dialog effort, the divergent 2016 Royal College of Physicians and Surgeon General’s Reports, Chapters 9 in both the 2016 and 2024 RCP reports, the responses to the 2017 announcement of US FDA’s Comprehensive Plan, and the journey of Juul Labs’ FDA marketing application for its original products.

Relevant to the conference theme, “Advancing the tobacco endgame: science, policy and equity for a healthier future,” we argue that until we resolve our fundamental paradigm issue, achieving alignment and a shared vision for an endgame will continue to elude us.

Disclosure

I consult to Juul Labs on tobacco harm minimization.



Enhancing Sustainability in EU Joint Actions - Novel Evaluation Approaches from JA-SAFE

D. Paegle¹, C. Vardavas^{2,3}, R. Solimini⁴, C. Cattaneo⁴

¹Riga Stradins university, Latvia

²University of Athens, Greece

³Harvard University, United States

⁴Istituto Superiore di Sanità (ISS - Italian National Institute of Health), Italy

Background

EU Joint Actions (JAs) are key instruments for advancing tobacco control and NCD prevention across Member States. However, traditional evaluation approaches often lack granularity and fail to systematically assess post-project sustainability, limiting long-term policy impact and accountability. JA-SAFE (EU4Health Program, Grant 101233428), a 48-month initiative involving 30+ partners, addresses smoke- and aerosol-free environments in support of Europe's Beating Cancer Plan and WHO MPOWER standards.

Aims

This presentation introduces novel evaluation and sustainability frameworks developed in WP3 (Evaluation and Benchmarking) and WP4 (Sustainability Actions) of JA-SAFE, with the aim of embedding rigorous, policy-relevant assessment throughout the project lifecycle and beyond.

Methods

The frameworks combine: (1) multi-level OOPA indicators (Output/Outcome/Process/Action) directly derived from the Grant Agreement; (2) structured per-WP evaluation matrices for cross-cutting objectives, including equity and benchmarking against the EU Best Practice Repository; and (3) a unique WP3–WP4 partnership that coordinates data collection (May 2027) and produces practical methodological guidelines for assessing impact 1–2 years after project completion. The Quality Assurance and Monitoring Plan (QAMP) operationalizes these tools through standardized questionnaires and an integrated Quality Management Committee (QMC) embedded in quarterly Consortium meetings.

Results

The approach replaces cumbersome top-down LogFrame verification with a more granular, low-burden system that enables credible tracking of efficiency, effectiveness, and early policy uptake. It delivers the first integrated post-project impact guidance in any EU Joint Action, while maintaining full alignment with EC expectations and reviewer recommendations (RC5, RC10, RC11, RC14).

Conclusion

JA-SAFE demonstrates a scalable model that transforms quality assurance into a strategic enabler of sustainability. By prioritizing equity, vulnerable populations, and measurable post-funding impact, this innovation provides actionable frameworks for future Joint Actions and strengthens EU efforts toward a tobacco-free generation.

Keywords: Joint Action evaluation, post-project sustainability, OOPA indicators, tobacco endgame, policy impact assessment



Greater Tobacco Control Policy Implementation Is Linked to Lower Use and NCD Mortality: Results from EPOCH-2 Study

M. Gambaryan¹, M. Chaschin¹, A. Kontsevaya¹, O. Drapkina¹

¹National Medical Research Centre for Therapy and Preventive Medicine, Russia

Background. Tobacco control policies aim not only to reduce tobacco and electronic nicotine delivery systems (ENDS) use, but, more importantly, to decrease the burden of noncommunicable disease (NCD) mortality.

Objective. This study aimed to assess associations between the extent of tobacco and ENDS control policy implementation, use prevalence, and NCD mortality, including temporal trends over 2019–2023 across 12 regions of the Russian Federation.

Methods. The level of implementation of MPOWER-based tobacco control measures was assessed using the tobacco control implementation scale developed within the EPOCH-2 study. These data were linked to prevalence estimates of tobacco and ENDS use derived from Rosstat microdata and to mortality rates (per 100,000 population) for cardiovascular diseases (CVD), ischemic heart disease (IHD), respiratory diseases, and malignant neoplasms from official statistics. Associations were examined using Spearman's rank correlation and linear regression models (Stata 11.2).

Results. More comprehensive implementation of tobacco control measures, including bans on tobacco and ENDS advertising, was associated with lower prevalence of tobacco use ($r_{sp} = -0.577$; $p = 0.005$), ENDS use ($r_{sp} = -0.543$; $p = 0.040$), and combined use ($\beta = -2.902$; $p = 0.039$). Greater availability of cessation support was associated with higher ENDS cessation rates ($r_{sp} = 0.639$, $p = 0.001$; $\beta = 0.356$, $p = 0.039$) and a slower increase in ENDS prevalence from 2019–2024 ($r_{sp} = -0.689$; $p < 0.001$; $\beta = -197.95$; $p = 0.022$). Smoking prevalence was positively correlated with mortality from CVD ($r_{sp} = 0.762$; $p < 0.001$), IHD ($r_{sp} = 0.520$; $p = 0.017$), respiratory diseases ($r_{sp} = 0.530$; $p = 0.019$), and malignant neoplasms ($r_{sp} = 0.434$; $p = 0.040$). In contrast, stronger implementation of cessation support was inversely associated with IHD mortality in 2023 ($r_{sp} = -0.622$; $p = 0.008$) and with increases in respiratory mortality ($r_{sp} = -0.672$; $p < 0.001$). Regression analyses further demonstrated significant associations between comprehensive implementation of six MPOWER measures and reductions in mortality trends for CVD ($\beta = 0.669$; $p = 0.049$), IHD ($\beta = 1.110$; $p = 0.040$), and malignant neoplasms ($\beta = 0.767$; $p = 0.005$), including effects related to pricing policies.

Conclusions. More comprehensive implementation of tobacco control policies is associated with lower prevalence of tobacco and ENDS use and with improved NCD mortality trends. Achieving endgame targets will require strengthening regulatory measures and ensuring their consistent enforcement.

Population Level Interventions

15:15 - 16:00

Examining the retail display and marketing of nicotine products in Scotland: discreet observations of outlets and interviews with retailers

A. Ford¹, A. Morgan¹, A.M. MacKintosh¹, N. Critchlow¹, C. Best¹¹University of Stirling, United Kingdom

Background:

The UK nicotine market has rapidly evolved with the emergence of different types and brands of new nicotine products (NNPs) such as vaping products, nicotine pouches and heated tobacco. This has led to concern about their availability, marketing and use among young people. How products are positioned, displayed, and promoted in-store, can be key to increasing appeal. There is little research examining how these products are currently marketed. This is a key barrier to developing evidence-based policies.

Aim:

To examine and measure the retail display and marketing of NNPs in Scotland.

Methods:

We conducted in-depth interviews with retailers in May/June 2025 (n=17) and discreet observations in stores selling NNPs in October/November 2025 (n=75). Fieldwork took place in four school catchment communities across Scotland, sampled to reflect different urban/rural status and deprivation level. Interviews were analysed thematically. Quantitative comparison between high and low deprivation areas was conducted by ordinal or binary logistic regression as appropriate for the dependent variable.

Results:

Retailers reported that the emergence of NNPs on the market, particularly disposable vapes, which coincided with post-Covid lockdowns in 2021, presented a 'lifeline' for some retailers whose businesses were struggling. Advertising and product displays were key tools to make products stand out, increase sales and encourage impulse purchasing. Observations showed that the most prominently advertised NNP brands were owned by tobacco companies. Vapes were the most widely marketed NNP. Despite their more recent emergence on the market, nicotine pouches were present at the point-of-sale in 88% of stores. Stores in areas of high deprivation were more likely to have larger vape displays at the point-of-sale (OR 3.23 95%CI 1.36-7.67) p=0.008, display vaping products close to youth orientated products (OR 4.15 95%CI 1.52-11.34) p=0.005, and have more visible external marketing (OR 3.77 95%CI 1.42-10.0) p=0.008.

Conclusion:

Retail marketing and display of NNPs successfully attracts consumer attention and sales. Greater marketing in outlets in more disadvantaged neighbourhoods raises concerns over widening socioeconomic inequalities. The findings will inform potential future rules, through the Tobacco and Vapes Act, on where products can be placed in-store and whether displays should be restricted.



Prevalence and correlates of home smoking, smoking rules or policies, and support for multi-unit housing smoking ban: Findings from the 2024 International Tobacco Control Four Country Smoking and Vaping Survey

G. Lai^{1,2}, C. Gartner^{1,2}, A. Cho^{1,2}, V. Rees³, K.A. East^{4,5}, G. Fong^{6,7}, K.M. Cummings⁸, K. Morphet^{1,2}

¹School of Public Health, The University of Queensland, Australia

²NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame, School of Public Health, The University of Queensland, Australia

³Department of Social and Behavioral Sciences, Harvard T.H. Chan School of Public Health, Boston, Massachusetts, United States

⁴Department of Primary Care and Public Health, Brighton and Sussex Medical School, University of Brighton and University of Sussex, Brighton, Sussex, United Kingdom

⁵Department of Addictions, Institute of Psychiatry, Psychology and Neuroscience, King's College London, London, United Kingdom

⁶Department of Psychology, University of Waterloo, Waterloo, Ontario, Canada

⁷Ontario Institute for Cancer Research, Toronto, Ontario, Canada

⁸Psychiatry & Behavioral Sciences, Medical University of South Carolina, Charleston, South Carolina, United States

Background: Homes are a major site of second-hand smoke exposure. The WHO FCTC Article 2.1 Expert Group identified expanding smoke-free policies to include residential settings as a forward-looking measure to intensify protection from tobacco smoke.

Aims: This study examined 1) occurrence of smoking in or around homes, 2) proportion of households with voluntary home smoking or vaping rules, 3) areas covered by smoke-free policies in multi-unit housing (MUH), 4) level of support for a complete smoking ban in MUH by household smoking status, and 5) predictors of adopting home smoking or vaping rules, and of support for a MUH smoking ban, among a sample who currently smoked or vaped, or had quit smoking in the past two years.

Methods: We analysed data from the 2024 ITC Four Country Smoking and Vaping Survey that included adults who currently smoked or vaped, or had recently quit smoking (≤ 2 years) (N=8,266; NCanada=2,369; NUnited States=2,094; NEngland=2,275; NAustralia=1,488). In the sample, 4,741 respondents reported living in single-unit homes (SUH) and 3,307 in MUH. Weighted proportions of the outcomes were estimated across countries. Weighted multinomial logistic regression will be used to explore predictors of having home smoking or vaping rules, and supporting a ban on smoking in MUH.

Results: Most respondents reported smoking occurring in the outdoor private areas of their home (77.3% of SUH dwellers; 69.5% of MUH dwellers); and less commonly inside their home (23% SUH; 26.5% MUH) or in MUH indoor common areas (9.8%). Most respondents never allowed smoking (61%), while nearly half never allowed vaping (45.6%) inside their home. Among MUH dwellers, around half reported smoking was banned in indoor common areas (54.1%) and inside their unit (46.3%); 18.7% reported smoking was banned in outdoor common areas and 16% in outdoor private areas. A quarter (25.3%) of MUH dwellers were supportive of a smoking ban in MUH, 19% were neutral and 55.7% were not supportive.

Conclusion: Smoking still occurs in a substantial minority of homes of people who recently smoked or vaped. Consideration of how to reduce smoking in residential settings and to increase support for smoke-free home policies is needed.



Mental models shaping the implementation of nicotine-free school hours: A qualitative study in Dutch secondary schools

B.(. Luiten¹, B.(. Barendregt^{1,2}, M.(. Kuipers¹

¹Department of Public & Occupational Health, Amsterdam UMC, Netherlands

²Public Health Service Amsterdam, Netherlands

Background: Nicotine-free school hours (NFSH) prohibits nicotine use by students and staff during the school day, both on and off school grounds. In a pilot, three schools in Amsterdam adopted NFSH, but struggled to successfully implement this policy. From a systems science and sensemaking perspective, policies do not operate as linear interventions but are interpreted and enacted within existing paradigms shaped by actors' mental models (i.e., their deep-seated beliefs, values, and assumptions). This study aimed to understand the mental models of students and school staff regarding nicotine use and tobacco control that shaped how NFSH was understood and enacted.

Methods: Using a grounded theory approach, we analysed interviews and focus group discussions with 32 students and 21 staff members from three secondary schools that had recently implemented NFSH. Data were analysed through open and axial coding to identify mental models.

Results: Implementation difficulties were mainly driven by mental models framing smoking and vaping as normalised, individual behaviours. Health harms of smoking and vaping were strongly acknowledged and NFSH was therefore generally supported (more so by staff than students). Yet, nicotine use was perceived as less harmful and more normal than alcohol or drug use. Nicotine use was considered not to impair learning ability or classroom functioning, meaning that it did not conflict with teachers' goals. Some staff viewed smoking part of normal risk-seeking behaviour, based on their own teenage experiences. Despite acknowledging school's responsibility in smoking prevention, staff viewed the area beyond the school grounds as out of reach for school authority and also held parents responsible. Generally, staff considered upper-year student smokers as too old to address their smoking, because they were old enough to make their own decisions. Similarly, students (especially nicotine users) considered NFSH patronising. Students and staff viewed quitting as driven by intrinsic motivation and therefore beyond the influence of school policy. These beliefs limited the perceived legitimacy of school authority, and were linked with selective, inconsistent enforcement/adherence.

Conclusion: Despite general support and understanding of NFSH, difficulties in implementation seemed rooted in interlinked mental models that strongly value autonomy and normalise nicotine use.



Tobacco advertising, promotion and sponsorship (TAPS) exposure in three WHO Western Pacific countries: Evidence from repeated Global Adult Tobacco Surveys

A. Dragicevic¹, A. Kress¹, A. Vashist¹

¹U.S. Centers for Disease Control and Prevention (CDC) Foundation, United States

Background:

Exposure to tobacco advertising, promotion and sponsorship (TAPS) is a key driver of tobacco initiation and continued use. Despite WHO Framework Convention on Tobacco Control (FCTC) recommendations to comprehensively ban TAPS, exposure remains widespread in many low- and middle-income countries. This study examines changes in TAPS exposure over time in Indonesia, Malaysia and the Philippines, and explores population characteristics associated with exposure.

Methods:

We analyzed repeated cross-sectional data from adults (15 years and older) in the Global Adult Tobacco Survey (GATS) in Indonesia (2011 & 2021), Malaysia (2011 & 2023) and the Philippines (2009, 2015 & 2021). TAPS exposure was assessed using combined and individual indicators of noticing cigarette advertising, promotions or sponsorship in the past 30 days across various channels (e.g., stores, media, sponsorships). We calculated weighted prevalence estimates and 95% confidence intervals for noticing TAPS, sociodemographic and behavioral indicators within each country and time point. We assessed relative change across survey rounds; $p < 0.05$ was considered statistically significant.

Results:

TAPS exposure varied across countries. In Indonesia, overall exposure to TAPS declined from 84.6% in 2011 to 75.3% in 2021. Notably, exposure to online advertising increased substantially during this period (1.9% to 21.4%). In Malaysia, overall exposure to TAPS decreased from 35.6% in 2011 to 18.3% in 2023, alongside reductions in point-of-sale advertising (21.7% to 8.8%). Evidence from the Philippines indicates similar downward trends with any TAPS exposure declining from 74.3% in 2009 to 58.6% in 2015 to 46.7% in 2021. Across countries, higher TAPS exposure is consistently observed among men, younger adults and current tobacco smokers. Emerging evidence also suggests increasing exposure through digital platforms, particularly among younger populations.

Conclusions:

While TAPS exposure has declined in all three countries, it remains high, especially in Indonesia, and may be shifting toward digital channels. Persistent disparities by age, sex and tobacco use status highlight vulnerable populations. Strengthening and enforcing comprehensive TAPS bans is critical to reducing exposure and advancing tobacco control in the WHO Western Pacific region.



Trends in tobacco product retail availability between 2023-2025: A multi-city retailer assessment study in the US

D. Giovenco¹, T. Spillane¹

¹Columbia University Mailman School of Public Health, United States

BACKGROUND: Examining recent changes in the retail availability of diverse tobacco product categories over time can offer insight into product popularity and the impact of local tobacco control policies. This study used 3 waves of data from annual tobacco retailer assessments in New York City (NYC), Philadelphia, and San Francisco to document emerging trends in product availability.

METHODS: Stratified, random sampling was used to select a representative sample of active tobacco retailers (20% from each city district) in 2023 (n=1,575), 2024 (n=1,525), and 2025 (n=1,300). Research staff visited each retailer in person and documented store type and the availability of cigarettes, cigars, traditional smokeless tobacco, oral nicotine pouches, and nicotine vaping products. Generalized linear mixed models examined changes in product availability across waves, controlling for city, store type, and district-level clustering. Wave*city interaction terms tested whether time trends differed between cities.

RESULTS: Data were obtained from 3,937 retailers (89.5% completion rate). Across waves, availability remained stable for cigarettes (range: 78.5-81.7%), vaping products (range: 33.1-35.9%), and smokeless tobacco (range: 16.4-18.3%). Cigar availability decreased significantly between Waves 1-3 (54.2% to 42.9%; aOR: 0.75 [0.69-0.82]), driven by large decreases in NYC (p=0.03). Oral nicotine pouch availability significantly increased (28.7% to 39.8%; aOR: 1.40 [1.27-1.55]), becoming more prevalent in NYC and Philadelphia between 2023-2025 (p=0.02).

CONCLUSION: Availability of most product categories was relatively stable, with 2 notable exceptions. An overall decrease in cigar availability was primarily driven by NYC, and may reflect retailer supply constraints given the city's aggressive new minimum pricing policy. Increased availability of oral nicotine pouches was likely explained by pouch companies' market expansion, greater consumer demand and product popularity, and potentially FDA's recent marketing authorizations for certain pouch products.



THE IMPACT OF NON-TAX PRICING POLICIES ON SMOKING BEHAVIOUR AND THE TOBACCO MARKET: A NARRATIVE SYNTHESIS SYSTEMATIC REVIEW

M. Narta¹, M. Jones¹, T. Langley¹, T. Coleman¹

¹University of Nottingham, United Kingdom

Background: Tobacco taxation is considered the most effective single measure for reducing smoking prevalence; however, tobacco companies employ market strategies to undermine its impact, including price differentiation, promotions, volume-based discounts, and pack size manipulation. Non-tax tobacco pricing policies (NTPPs) – minimum price laws (MPL), pack size regulations, price promotion/discount bans – have been proposed as complementary measures.

Aim: Synthesise real-world evidence on the effectiveness of NTPPs on smoking behaviour, product availability, and pricing outcomes.

Methods: A systematic review following PRISMA with narrative synthesis guidelines. Population: Any population, adults or youth. Interventions: MPL, promotion/discount bans, and pack size regulations. Comparator: Any, including no intervention. Outcomes: Smoking behaviour, product availability, and pricing. Twelve databases and unpublished sources were searched. Two reviewers independently assessed eligibility and quality using Joanna Briggs Institute appraisal tools.

Results: Heterogeneity precluded meta-analysis; narrative synthesis was conducted. Twenty studies (fourteen quasi-experimental, six cross-sectional) from five countries (US, UK, Canada, Guatemala, Malaysia) examined NTPPs for cigarettes, cigars, and roll-your-own (RYO) tobacco. Combined cigar policies – particularly MPL with pack size regulations and promotion bans with deterrent enforcement – showed the most consistent positive effects on price, availability, and consumption in the US. However, substitution evidence was limited to cigarette use, with no data on switching to cheaper alternatives or e-cigarettes. UK standardised cigarette and RYO tobacco packaging increased prices but produced mixed consumption results, with evidence of the substitution effect. Standalone MPL set at or below market prices showed limited effectiveness, and illicit cigarette consumption increased in Malaysia and the US with insufficient enforcement. Methodological quality was moderate (quasi-experimental mean: 4–5/9; cross-sectional: 6/8), with key limitations including the inability to isolate individual policy effects and heterogeneity preventing meta-analysis.

Conclusion: Current evidence suggests that comprehensive NTPPs combining multiple components with active enforcement can positively influence tobacco pricing, availability, and consumption. However, limited geographic scope and product coverage, and the inability to isolate individual policy effects, mean definitive conclusions about which components drive effectiveness cannot yet be drawn. Insufficient evidence exists regarding substitution and illicit consumption. Further research in diverse contexts with longer follow-up and component-isolating designs is needed.



Estimating the Effect of a Low Nicotine Standard in Eight European Countries Using Aggregate Target Data

M. Silva¹, L. Siegel¹, K. Li¹, J. Koopmeiners¹, J. Huling¹

¹University of Minnesota, United States

Background: In randomized controlled trials (RCTs) completed in the United States, participants randomized to receive very low nicotine content (VLNC) cigarettes, on average, exhibited reduced cigarette use, dependence, and biomarkers of exposure. While these RCTs provide strong evidence in support of a nicotine standard for cigarettes, the effect of nicotine reduction in other countries may be different because of systematic differences between the participants in these trials and the target population.

Aims: Our objective is to estimate the effect of VLNC cigarettes on cigarettes per day (CPD) in eight European countries using data from RCTs completed in the United States.

Methods: We analyzed data from six RCTs comparing participants assigned to receive VLNC (0.4 mg/g SPECTRUM) cigarettes to participants assigned to normal nicotine content cigarettes (15.8 mg/g SPECTRUM). Data were calibrated to our target populations using aggregate data from the International Tobacco Control Policy Evaluation Project (ITC) surveys in Germany, Greece, Hungary, Poland, Romania, Spain, England, and the Netherlands. The primary outcome was total CPD measured between 6- and 8-weeks post randomization. The population average treatment effect was estimated using a novel outcome regression estimator. Non-adherence was identified by either urinary cotinine or total nicotine equivalents, depending on the availability of the data. Covariates used to calibrate the trial population include sex, age, education, and the heaviness of smoking index. Confidence intervals were estimated by the parametric bootstrap.

Results: The effect of VLNC cigarettes varied by country from a minimum of -5.36 (95% CI: -7.34, -3.38) in Romania to a maximum of -3.95 (95% CI: -6.04, -1.86) in Germany. In contrast, the average treatment effect observed in the RCT population was -5.15 (95% CI: -6.41, -3.89). The covariate compositions of the trials and target populations of PWS differ, indicating that calibration is necessary.

Conclusions: A nicotine standard for cigarettes would reduce cigarette use in the population of PWS in eight European countries, but the effect would vary by country. Access to individual-level data would allow for more precise estimates of the effect of nicotine reduction across countries.



Prevalence of cannabis use before and in the early period following partial legalisation in Germany

D. Kotz^{1,2}, J. Manthey³, S. Klosterhalfen⁴, P. Steinhoff⁴, W. Viechtbauer⁵

¹Medical Faculty and University Hospital Düsseldorf, Germany

²University College London, United Kingdom

³University Medical Center Hamburg-Eppendorf, Germany

⁴Medical Faculty and University Hospital Düsseldorf, Heinrich Heine University Düsseldorf, Germany

⁵Maastricht University, Netherlands

Background

On April 1st, 2024, Germany implemented the Act on the Handling of Cannabis for Non-Medical Use (KCanG), allowing adults to cultivate and possess recreational cannabis. We assessed whether this was associated with a change in the prevalence of cannabis use.

Methods

A series of 21 repeated surveys between April/May 2022 and October/November 2025 (covering the period approximately two years before and one and a half years after the KCanG). We measured past 12-month cannabis use (at least once; daily or almost daily use). Piecewise binomial logistic regression models used wave dates as predictors, allowing a slope change at the first full wave after April 2024, with a random effect for wave. Analyses covered the total sample and subgroups by gender, age (14-24 vs. 25-64 years), and daily or almost daily use among past 12-month users. Sensitivity analyses used alternate intervention dates (in-time placebo tests). A detailed plan for the current analyses was published prior to data analysis (<https://osf.io/w92v5>).

Results

Among 32,991 respondents aged 14-64 years, 2,092 (6.3%) reported past 12-month cannabis use. The prevalence and proportion of (almost) daily users remained largely stable before and after the law reform. None of the slope coefficients before the introduction of the KCanG were statistically significant (all $p \geq .08$), and none of the coefficients for the change in the slope were statistically significant (all $p \geq .31$). Sensitivity analyses supported these findings.

Conclusions

Germany's 2024 cannabis reform was not associated with changes in 12-month use prevalence or heavy use early (1.5 years) after implementation. Continued monitoring over longer periods and across multiple data sources is recommended, as effects may emerge later.



Impact of the 2017 Excise Tax on Tobacco Use in the United Arab Emirates: A Repeated Cross-Sectional Analysis from the UAE Healthy Future Study.

M. Alblooshi^{1,2}, A. Ahmad¹, A. Abdulle¹, Y. Idaghdour¹, R. Ali¹, F.T. Filippidis²

¹New York University Abu Dhabi, United Arab Emirates

²Imperial College London, United Kingdom

Background

Tobacco taxation is recognised as the most cost-effective strategy for reducing tobacco use.^{1,2} Despite its effectiveness, it remains the least adopted tobacco control measure in many regions. The Eastern Mediterranean Region features a diverse tobacco landscape and high product affordability. To address this, the Gulf Cooperation Council agreed in 2016 to implement a uniform 100% excise tax. In October 2017, the United Arab Emirates introduced a 100% excise tax on tobacco products.

Aims

This study investigates how the 2017 tax has affected the use of three combustible tobacco products (cigarettes, midwakh, and shisha) in the UAE.

Methods

Data from the UAE Healthy Future Study (2016–2023), a prospective cohort study of adults aged ≥ 18 years, were analysed using a repeated cross-sectional design: wave 1 (pre-policy: February 2016 to September 2017), wave 2 (intermediate impact: October 2017 to March 2019), and wave 3 (long-term impact: April 2019 to March 2023). Questionnaires covered demographic characteristics, health status, and use of three types of combustible tobacco (cigarettes, midwakh, and shisha). Outcomes included the prevalence of 'at least weekly use' and usage profiles (single product vs. multi-product use). Associations were assessed using descriptive statistics, multivariable logistic regression and multinomial logistic regression.

Results

A total of 6680 participants were included (wave 1: $n = 1505$; wave 2: $n = 2158$; wave 3: $n = 3017$). Prevalence of weekly use of at least one product was 25.7% in wave 1, 19.4% in wave 2 and 19.7% in wave 3. The tax impact varied by product; midwakh use decreased significantly by wave 3 (aOR: 0.73, 95% CI: 0.57, 0.94). In contrast, there was a significant increase in the odds of cigarette use by wave 3 (aOR: 1.36, 95% CI: 1.05, 1.78), while shisha use showed a sustained significant increase across both post-tax waves. The odds of multi-product use increased significantly between wave 1 (pre-tax) and wave 2 (aOR: 1.45, 95% CI: 1.02, 2.06).

Conclusions

An initial reduction in the overall prevalence of tobacco was observed, followed by a shift towards multi-product use. Future strategies may prioritise incremental tax increases and the elimination of price gaps between products.



Understanding the Swiss tobacco and nicotine market through national product notifications

J. Cros¹, K. Zürcher¹, L. Lebon¹

¹University Center for Primary Care and Public Health (Unisanté), University of Lausanne, Switzerland

Background

Since the mid-2000s, the tobacco and nicotine products market has undergone rapid diversification. Since 2024, the new Federal Act on Tobacco Products requires manufacturers and importers to declare the tobacco and nicotine products that they bring on the Swiss market. This mandatory reporting system provides an unprecedented national electronic dataset.

Aims and methods

The present study aims to describe the scope, evolution and characteristics of tobacco and nicotine products registered on the Swiss market as of 2026, by analysing the national product notification database.

Results

The number of registered products on the Swiss market increased from 2'460 in 2000 to 9'857 in January 2026, with marked acceleration after 2022. As of 2026, electronic cigarettes represent 51% of all registrations (n=5'032), followed by smoking tobacco products (40%; n=3'949), tobacco and nicotine-like products (6%; n=623) and nicotine products for oral use (2%; n=200). Cigars remain the most frequently registered product (n=3'102), whereas refill liquids with nicotine (n=2'068) and without nicotine (n=1587) expanded recently. In contrast, cigarette registrations remained limited, reflecting market concentrated around a small number of major tobacco companies and supermarket brands.

Flavour descriptors among electronic cigarettes, nicotine pouches and snus are dominated by cooling, mint and fruit-related terms. Youth-oriented descriptors such as candy, cola and bubble gum are frequently identified. Most nicotine-containing electronic cigarettes are concentrated between 17 and 20 mg/ml, while nicotine pouch concentrations vary widely from 1.5 mg to over 30 mg per pouch.

Conclusion

Switzerland remains a distinctive case in Europe, with comparatively weak regulations that may facilitate the availability and attractiveness of a wide range of addictive nicotine products. Strengthening tobacco control measures, particularly regarding flavours, nicotine concentration and product-specific exemptions, would reduce exposure to harmful products and limit their appeal, especially among young people.

Smoking Cessation

15:15 - 16:00

Remote Contingency Management for adherence to smoking cessation treatment: pilot clinical trial

E. Cruvinel¹, D. Kendzor², N. Nollen¹, R. Yi³, B. Gajewski¹, T. Scheuermann¹, Z. Yao³, S. Weis¹, G. Oliveira³, S. Ahmed³, L. Meyer³, P. Amatapu³, K. Richter¹

¹University of Kansas Medical Center, United States

²The University of Oklahoma Health Sciences Center, United States

³University of Kansas, United States

Significance: Adherence to smoking cessation medication and counseling are strong predictors of cessation success. However, most people referred to quitlines never actually enroll, and those who do enroll participate in very few counseling sessions. Similarly, most people who receive prescriptions for cessation medications rarely fill or use them. Contingency management (CM) is an evidence-based method for changing behavior. To date, most CM interventions are costly, burdensome, and limited as they involve in-person visits and change only one health-related behavior at a time. **Methods:** We developed and tested an mHealth intervention, Health Rewards, that uses CM to concurrently incentivize both medication (varenicline) and counseling (quitline) adherence. Health Rewards is a fully remote and automated phone-based system that detects pharmacotherapy adherence via wireless pill boxes, tracks quitline engagement, and quickly delivers CM to participants via debit cards. Study enrollment was completed in Set 2025, and all participants have had the opportunity to complete the 12-week follow-up. **Results:** Participants (N = 21) were, on average, 59.3 years old (SD =6.7). Nearly half were female (47.6%). The sample was primarily White (71.4%) and Black (28.6%). At baseline, participants smoked an average of 13.76 (SD=6.21) cigarettes per day and had smoked for an average of 40.7 (SD=8.44) years. Over 12 weeks of treatment, participants took on average 82% of their medication based on wireless pill box data and they attended 33% of their calls. Using an intention-to-treat (ITT) approach, 66.6% met the biochemical criterion for abstinence (salivary anabasine < 5 ng/mL) at 3 weeks and 33.3% at end of treatment (week 12). Participants earned a mean of \$48 (SD=\$68.10; of \$175 possible) for completing counseling calls during the first 6 weeks and \$102 (SD=\$61.73; of 174.90 maximum possible) for taking varenicline during 12 weeks of treatment. Follow-up completion rates were 80.0% at 3 and 6 weeks- and 76% at 12-weeks follow-up. **Conclusion:** Findings from this pilot study indicate strong feasibility, with complete recruitment and high retention rates. Initial evidence suggests that offering small, remote financial incentives for completing counseling calls and taking medication is a low-cost, effective strategy to increase treatment engagement and cessation rates.



Feasibility of Integrating Ecological Momentary Assessment, Wearable Sleep Monitoring, and Remote Biochemical Verification in Smoking Cessation: Fully Remote Pilot Study

K. Ra¹, N. Pehlivan¹, P. Nadkarni², A. Mahabir³, M. Businelle⁴, K. Gamble⁵, D. Hedeker⁶, M. Steinberg⁷, A. Spaeth⁸, A. Villanti⁹

¹Rutgers Cancer Institute of New Jersey, United States

²RWJ Medical School/Rutgers University, United States

³Princeton University, United States

⁴University of Oklahoma, United States

⁵School of Medicine/ University of Alabama at Birmingham, United States

⁶University of Chicago, United States

⁷Rutgers Institute for Nicotine & Tobacco Studies/ Rutgers University, Afghanistan

⁸Department of Kinesiology and Health/ Rutgers University, United States

⁹Rutgers Institute for Nicotine & Tobacco Studies/ Rutgers University, United States

Background: Mobile health (mHealth) approaches combining ecological momentary assessment (EMA) and sensor-based measures enable real-time monitoring of behavior during smoking cessation. However, the feasibility of integrating multiple remote monitoring approaches within a fully remote design remains unclear. **Objective:** To evaluate the feasibility of integrating EMA, wearable sleep monitoring, and remote biochemical verification of smoking status in a fully remote study of adults attempting to quit smoking.

Methods: In this 6-week fully remote observational study, adult smokers were monitored during a 2-week pre-quit and 4-week post-quit period. Participants completed EMA surveys via a smartphone app (5 or more per day), wore a wrist-worn actigraphy device, and submitted daily breath samples using a portable carbon monoxide (CO) monitor. Feasibility outcomes included retention, EMA compliance, actigraphy adherence, CO submission rates, and device return. Pre-defined feasibility benchmarks were $\geq 70\%$ EMA compliance, $\geq 50\%$ CO submission, $\geq 70\%$ of participants wearing the actigraphy device on $\geq 90\%$ of study days, and $\geq 90\%$ device return.

Results: A total of 46 participants completed the study, and the majority (71.4%) reported lower socioeconomic status. EMA compliance averaged 73.8% (SD 20.7) during the pre-quit period and 75.1% (SD 23.5) during the post-quit period. CO submission compliance was 71.3% (SD 27.3) pre-quit and 65.0% (SD 31.2) post-quit. Most participants (73.9%) wore the actigraphy device on $\geq 90\%$ of study days, and device return was high (96.4%).

Conclusions: Integrating EMA, wearable sleep monitoring, and remote biochemical verification in a fully remote design is feasible. High adherence and retention, meeting predefined feasibility benchmarks, support the use of integrated mHealth approaches for remote monitoring during smoking cessation.



Reduced-nicotine cigarettes for smoking cessation and reduction: a Cochrane Review

J. Livingstone-Banks¹, C. Ma², E. Klemperer³, R. Cassidy⁴, H. Jarman², M. Robayo⁵, A. Rohila², D. Hatsukami⁶, N. Lindson¹, J. Hartmann-Boyce⁷

¹University of Oxford, United Kingdom

²University of Michigan, United States

³University of Vermont, United States

⁴Brown University, United States

⁵Georgetown University, United States

⁶University of Minnesota, United States

⁷University of Massachusetts, Amherst, United States

Background

Mandating a reduction in the nicotine content of cigarettes has been proposed as a strategy to reduce smoking prevalence. However, without a clear understanding of benefits and harms, a nicotine reduction standard could lead to unintended consequences such as compensatory smoking. There is a need for an up-to-date comprehensive synthesis of the effects of reduced-nicotine cigarettes on smoking cessation, reduction, and potential harms.

Aims

To evaluate the benefits and harms of using reduced-nicotine cigarettes, compared with standard cigarettes, in people who smoke

Methods

We conducted a Cochrane systematic review. We searched in February 2026 for RCTs among people of any age who smoked tobacco, providing participants with combustible cigarettes with a lower than standard nicotine content, with or without adjunct smoking cessation/reduction support. Studies had to measure at least one outcome: smoking abstinence or other changes in smoking (1 months+); SAEs/AEs (1 week+); biomarkers of exposure, risk, or potential harm (1 week+); use of other tobacco or non-pharmaceutical nicotine products (1 month+).

Results

We identified 47 eligible completed trials (11,505 people) and 9 trials ongoing or without available results. Studies tested reduced-nicotine cigarettes with nicotine strengths of <0.05 to ~5.8 mg/cigarette. Participants were randomised to receive reduced-nicotine cigarettes alone or in conjunction with behavioural support, nicotine replacement therapy, or e-cigarettes, and compared with cigarettes of normal nicotine strength (with and without other forms of support). Duration of reduced-nicotine cigarettes ranged from one to 20 weeks. Most studies recruited from the general population of people who smoked, but some specifically recruited those motivated or not motivated to quit, or people with mental illness. Outcomes included smoking cessation, changes in cigarettes per day, and biomarkers of exposure and harm. This presentation will include results from meta-analyses.

Conclusions

Nicotine standards remain in consideration for policy makers. This review brings together the best available evidence on the potential benefits and harms of introducing such a standard, and serves as a building block in designing evidence-based policy.



Estimating uptake and effectiveness of cytisine for smoking cessation in clinical practice in England

D. Kale¹, L. Shahab¹, J. Brown¹, R. West¹, E. Turner²

¹University College London, United Kingdom

²Everyone Health, United Kingdom

Background and aims: Cytisine was introduced in UK stop smoking services (SSS) in early 2024 as a pharmacotherapy for smoking cessation, providing an opportunity to estimate its effectiveness in a real-world setting. This study assessed uptake of cytisine in a UK SSS and compared abstinence rates of smokers in this SSS using cytisine with those using other pharmacotherapies, adjusting for smoker characteristics.

Design: Between-group prospective observational comparison study.

Setting: One SSS in England, UK.

Participants: 3,503 current smokers (mean [Standard Deviation] age = 53.4 [13.3] years), aged ≥18 years, not pregnant and initiating stop smoking treatment between May 2024 and August 2025.

Measurements: Outcome variables were use of cytisine and other pharmacotherapies (nicotine replacement therapy (NRT), varenicline, e-cigarettes, or no medication) and self-reported abstinence assessed at 4-week follow-up. Covariates included sociodemographic, health-, and smoking-related characteristics.

Findings: Overall, 230 (6.6%) smokers were prescribed cytisine during their quit attempt, of whom 184 (80.4%) were prescribed cytisine exclusively. A total of 3,253 (92.8%) participants responded to the 4-week follow-up. Cytisine-only users had similar odds of 4-week self-reported abstinence to NRT-only users (adjusted odds ratio (aOR)=1.13, 95% Confidence Intervals (CI)=0.82–1.56), although the upper end of CI includes effects that may be clinically significant. They also had similar odds of self-reported abstinence compared to e-cigarette-only users (aOR=1.06, 95% CI=0.65–1.72) with the CIs including clinically significant effects in both directions. Cytisine-only users had lower odds of self-reported abstinence than varenicline-only users (aOR=0.50, 95% CI=0.34–0.74) but higher odds than those using no medication (aOR=2.80, 95% CI=1.49–5.24).

Conclusions: Shortly after its introduction, cytisine was used by a small proportion of SSS users in the UK and its real-world effectiveness was superior to no medication, similar to NRT and e-cigarettes, but lower than varenicline.



Epidemiological, clinical, and smoking profile of smokers seeking cessation assistance in a cessation clinic in Tunisia

Y. Ayedi^{1,2}, C. Harizi^{1,2}, S. Mechraoui¹, R. Fakhfakh^{1,2}

¹Department of Preventive and Community Medicine, Abderrahmane Mami University Hospital, Ariana, Tunisia

²Faculty of Medicine of Tunis, University of Tunis El Manar, Tunis, Tunisia

Introduction: Smoking is a major public health problem, responsible for significant morbidity and mortality. Characterizing the profile of smokers seeking cessation assistance is essential to adapt therapeutic strategies, optimize the support provided, and improve the chances of success in quitting. This study aims to describe the epidemiological, clinical, and smoking profiles of smokers consulting for cessation assistance in our department.

Methods: This was a retrospective descriptive study conducted among adult patients seeking smoking cessation between January 2020 and December 2024 in our preventive medicine department. Socio-demographic and clinical data were collected from medical records. Dependency levels were assessed using the Fagerström Test for Nicotine Dependence (FTND).

Results: A total of 656 patients were included, with a median age of 46 years (Interquartile Range [IQR]: 35–57). The cohort was composed of 75.2% men (n = 493) with a sex ratio (M/F) of 3.16. Two-thirds of the patients (61.7%, n = 403) were married. Regarding education level, 40.9% (n = 281) held a university degree. In terms of medical history, cardiovascular diseases were present in 22% (n = 144) of patients, and 12.5% (n = 82) had a history of bronchitis. More than half of the smokers (57.9%, n = 366) reported a history of depression, of whom 41% had required pharmacological treatment (anxiolytics, antidepressants, or combinations). Regarding the tobacco products used, the majority of patients consumed cigarettes exclusively (84.8%). Concerning alcohol-tobacco co-use, 28.9% of our patients (n = 167) reported occasional or regular alcohol consumption. The median age of smoking initiation was 17 years (IQR: 15–20). Very high dependence (Fagerström score ≥ 7) was observed in 54.6% of smokers, with a consumption of more than 20 cigarettes per day in 49.9% of cases.

Conclusion: Smokers seeking cessation assistance most often present with high nicotine dependence, early initiation of consumption, and a frequent history of depression. This profile highlights the necessity of personalized care that integrates pharmacological treatment with reinforced psychological support, with particular attention paid to mental health.



Comparative profile of smokers by gender attending a smoking cessation clinic in Ariana, Tunisia

C. HARIZI^{1,2}, S. Mechraoui^{1,2}, Y. Ayedi^{1,2}, R. Fakhfakh^{1,3}

¹Department of Preventive and Community Medicine, Abderrahman Mami Hospital, Tunisia

²Faculty of Medecine, Tunis El Manar University, Tunis, Tunisia

³Faculty of Medecine, Tunis El Manar University, Tunis, Afghanistan

Background :

Smoking remains a major public health challenge in Tunisia, with gender-related differences in behavior, dependence, and comorbidities. Identifying these differences is essential to optimize cessation strategies.

Aims: This study aimed to compare sociodemographic, smoking, and clinical characteristics of smokers by gender in our cessation clinic.

Methods :

A prospective descriptive study was conducted among patients attending a smoking cessation clinic at Abderrahman Mami Hospital (January 2024–December 2025) who completed at least three follow-up visits.

Data on sociodemographic characteristics, smoking history, medical and psychiatric comorbidities, and motivational profiles were extracted from medical records and analyzed by gender.

Results :

A total of 471 smokers were included, 78.6% of whom were men. Mean age was similar between men (47 ± 14.7 years) and women (46 ± 14.4 years; $p = 0.37$). University education was reported in 37.8% of men and 42.6% of women ($p = 0.38$). Divorce was more frequent among women (11.9% vs 3.8%; $p = 0.001$).

Nicotine dependence scores were higher in men (6.47 ± 2.3) than in women (5.98 ± 2.6 ; $p = 0.071$). Previous quit attempts were more frequent in women (5.25% vs 1.78%; $p = 0.29$). Medical comorbidities were common (>50%) with no significant gender difference ($p = 0.63$).

Alcohol use was more prevalent in men (33.4% vs 17%; $p = 0.004$), whereas women were more frequently exposed to household smoking (55.6% vs 28.3%; $p < 10^{-3}$) and had higher rates of depression (63.4% vs 36.9%; $p < 10^{-3}$).

Conclusion :

Marked gender disparities exist among smokers seeking cessation, with women exhibiting greater psychosocial vulnerability and men higher alcohol consumption. These findings highlight the need for gender-sensitive cessation interventions integrating social and psychological determinants.



Profiles and causes of patients lost to follow-up in smoking cessation: the experience of the Abderrahman Mami Hospital Center, Ariana – Tunisia

C. HARIZI^{1,2}, S. Merchaoui^{1,2}, Y. Ayedi^{1,2}, R. Fakhfakh^{1,2}

¹Department of Preventive and Community Medicine, Abderrahman Mami Hospital, Ariana, Tunisia

²Faculty of Medicine, Tunis El Manar University, Tunis, Tunisia

Background :

Smoking cessation requires sustained follow-up, yet high loss-to-follow-up rates limit effectiveness.

Aims: This study aimed to characterize patients lost to follow-up, assess their smoking status, and identify barriers to retention.

Methods :

A retrospective cohort study included smokers attending a cessation clinic in Ariana, Tunisia (2022–2024) who discontinued follow-up after one or two visits. A telephone survey (Nov 2025–Feb 2026) assessed reasons for discontinuation, smoking status, cessation challenges, and satisfaction (score/10).

Results :

Among 229 patients lost to follow-up, 153 (66.8%) had valid contact details and 115 (50.2%) responded. Most (63.3%) attended a single visit and received a median nicotine patch dose of 35 mg [21–42]. At survey, 80.3% remained smokers.

Key barriers included scheduling difficulties (32.8%), low self-efficacy (16.4%), and geographical constraints (13.8%). Despite discontinuation, satisfaction remained high (median 9/10), and 52.2% were willing to resume follow-up.

Conclusion :

Loss to follow-up is driven by structural and psychological barriers. Patient-centered strategies, including telemedicine, flexible scheduling, and enhanced behavioral support, are needed to improve retention and long-term cessation outcomes.

Targeting Neuroinflammatory Pathways in Nicotine Dependence: Rationale and Design of the TONIC Seamless Phase I/II Trial of NFL-102 for Smoking and Nicotine Cessation

S.E. Lukas¹, J. Grouin², L. Krebs-Drouot³, B. Lafont⁴, Y. Plétan⁴

¹McLean Hospital / Harvard Medical School, Boston, MA, United States

²University of Rouen, France

³Eurofins Optimed, France

⁴NFL BIOSCIENCES, France

Background: Tobacco use disorder remains the leading cause of preventable death worldwide. Despite available pharmacotherapies, long-term abstinence rates remain modest, highlighting the need for innovative treatments. NFL-102 is an aqueous tobacco leaf extract administered subcutaneously via an immunotherapy-inspired regimen. Preclinical studies using brain [¹⁸F]FDG PET imaging showed that NFL-102 normalizes smoking-induced regional alterations in brain glucose metabolism in a mouse model of chronic smoke exposure and withdrawal. Complementary proteomic analyses demonstrated that NFL-102 attenuates neuroimmune activation in the thalamus — reducing pro-inflammatory cytokines (IL-2, IL-5, IL-9) and GFAP expression — while restoring dysregulated signaling in the prefrontal cortex, including NF-κB, JNK and CREB, consistent with a homeostatic rebalancing of addiction-related pathways. NFL-102 is structurally related to NFL-101, for which Phase I–IIb trials (276 participants exposed across three studies) confirmed a favorable safety profile, and a Phase IIb study demonstrated a 4-week continuous abstinence rate of 24.1% vs. 12.9% for placebo, confirmed by urinary cotinine ($p = 0.04$), with abstainers showing significantly higher anti-NFL-101 IgG titers.

Methods: TONIC is a multicenter, randomized, double-blind, placebo-controlled seamless Phase I/II trial enrolling 445 treatment-seeking adult smokers (≥ 11 cigarettes/day, Fagerström score ≥ 3) across up to 10 sites in France. Part A ($n = 40$) follows a dose-escalation design with four cohorts (35, 70, 140, 280 μg protein), randomized 4:1 to NFL-102 or placebo. An Independent Data Monitoring Committee reviews Part A safety data before recommending doses for Part B. Part B ($n = 405$) randomizes participants across placebo and four dose arms (ratio 2:1:2:2) to characterize the dose–response relationship and identify the optimal dose for Phase 3 development. NFL-102 is administered subcutaneously on Days 1 and 8. The primary efficacy endpoint is continuous abstinence confirmed by urinary cotinine $< 50 \mu\text{g/mL}$ for ≥ 28 consecutive days between Day 15 and Days 43–50.

Conclusions: By targeting neuroinflammatory and addiction-related signaling pathways, NFL-102 represents a mechanistically distinct approach to smoking cessation. The TONIC trial aims to demonstrate the efficacy and safety of NFL-102, select the optimal dose for Phase 3 development, and support the emergence of a new class of treatments for tobacco use disorder.



Remote carbon monoxide validation: Lessons from a randomised stop-smoking trial

D. Przulj¹, K. Smith¹, D. Ladmore¹, F. Pesola¹, P. Hajek¹, H. McRobbie¹

¹Queen Mary University of London, United Kingdom

Background and Aims:

The iCOquit® Smokerlyzer® (Bedfont Scientific) is a personal device used to monitor carbon monoxide (CO) in expired breath. Use of the iCOquit® increased during the COVID-19 pandemic allowing practitioners to validate quit attempts remotely. It is also used in some pregnancy stop-smoking services to increase motivation. Here we evaluate the use of the iCOquit® in a large, randomised trial of e-cigarettes for smoking-cessation, and report on response rates, costs and trouble-shooting issues.

Methods:

The Vapeline trial was a UK-wide study that recruited 1170 people who wanted to quit smoking from a mix of sites (healthcare settings, a local stop-smoking service) and social media. Where participants were recruited through health-care settings, those reporting abstinence were invited for in-person CO-validation. If this was not possible, they were offered remote validation. The remaining participants were validated remotely and were posted the iCOquit® device with set-up instructions. To ensure validity, a video-call was arranged where the participant performed the CO-validation in real-time with the researcher and sent a screenshot of the result via Whatsapp or email. All participants, regardless of mode of validation, were posted £20 for their time following the appointment.

Results:

At 6-month follow-up 230 participants required CO-validation. Of these, 102 were scheduled for in-person validation, and 74 (73%) attended. Of the 128 participants scheduled for remote testing, 91 (71%) completed the remote test.

At 12 months 237 participants required CO-validation. Of these 109 were scheduled for in-person testing, and 74 (68%) attended. Of the 128 scheduled for remote testing, 85 (66%) completed this. The main trouble-shooting issue was a lack of or temperamental Bluetooth connectivity. The cost of the device was £59.95 per device (excluding postage). For comparison, saliva cotinine sampling is ~£65 per sample (excluding laboratory costs, postage or storage).

Conclusions:

Response rates for remote validation were similar to that of in-person validation. The iCOquit® device can be a useful, cost-effective tool in remote trials or where in-person engagement may be challenging. It may not be feasible for those who are less IT-literate. We recommend video-calling to facilitate use and increase validity.

Under used or unheard of? Uptake of Cytisine and service user experiences in East London, UK.

D. Ladmore¹, D. Przulj¹, K. Myers Smith¹, D. Kale², A. Akansha¹, A. Bhoir¹, H. McRobbie¹

¹Queen Mary University of London, United Kingdom

²University College London, United Kingdom

Background and Aims:

Cytisinicline (cytisine) is a long established smoking cessation medication widely used in Eastern Europe. It is effective, well tolerated, cost-effective and has a favourable safety profile, offering an additional pharmacological option for managing withdrawal symptoms during quitting. Despite its introduction in England in 2024, uptake of cytisine has remained low. This is concerning given its potential role for smokers wanting to quit, particularly for those who have not succeeded with other treatments. We examined the current uptake of cytisine in two East London UK, stop smoking services (SSS) and explored service users' awareness and experiences using the medication.

Methods:

We describe routinely collected service data from 3096 smokers attending the two SSSs between April to December 2025 that offered cytisine as a treatment option. In addition, as part of wider Patient and Public Involvement and Engagement (PPIE) activities exploring barriers and facilitators to cytisine use, semi-structured interviews were conducted with two smokers who used cytisine, and one smoker that considered its use as part of a stop smoking service. Service users were asked about prior awareness of cytisine, reasons for medication choice, experiences of side effects, access, and suggestions for improving support.

Results:

Uptake of cytisine was low with only 19 (0.6%) service users who set a quit day opting for it (mean [Standard Deviation] age=45.68 [10.50]). Nine (47%) went on to successfully quit. None of the service users interviewed had heard of cytisine prior to attending the service. Following discussion of available treatments, its reputation for fewer side effects has influenced their choice of medication. Service users reported side effects including disturbed sleep and nausea but generally described these as manageable. Availability of cytisine in local pharmacies proved challenging. Service users suggested clearer guidance on missed doses and side effect management and reported limited confidence in healthcare professionals' knowledge of cytisine outside specialist SSSs.

Conclusion:

Current uptake of cytisine in the two London-based SSS is minimal. Improved awareness, availability, and practical, user focused guidance may increase uptake and optimise cytisine's contribution to UK SSSs.



Delivering an integrated digital cessation intervention for Health and Social Care staff who are tobacco dependent in the North East and North Cumbria, England

R. McIlvenna^{1,2}, R. Sharrock³, J. Kyei-Sarpong^{1,4}, T. Ghee⁵, A. Rutter⁵, J. Feeney⁵, C. Thompson¹

¹North East North Cumbria ICS, United Kingdom

²Fresh & Balance (hosted by County Durham & Darlington NHS FT), United Kingdom

³Gateshead NHS Foundation Trust, United Kingdom

⁴Fresh & Balance (hosted by County Durham & Darlington NHS FT), United Kingdom

⁵Fresh & Balance (hosted by CDDFT), United Kingdom

Background:

Smoking remains the single largest driver of health inequalities for all the North East North Cumbria (NENC) population. It is the largest cause of premature morbidity and mortality with 2 in 3 long term smokers dying prematurely entirely due to smoking.

Smoking is unfortunately also a driver of poverty among social economically disadvantaged groups with around 42.4 % of all smoking households in the North East falling below the poverty line. Smokers are estimated to have an absenteeism rate of 33% higher than non-smokers and take 2.7 sick days per annum. In NENC, Smoking is also estimated to lead to an annual loss of £1.78bn due to premature deaths from smoking.

Aim:

Roll out of integrated digital cessation support offer for health and social care staff (including Voluntary Sector) in NENC to improve productivity and reduce sickness absence caused by smoking.

Methods:

This offer built on previously successful staff tobacco dependency offer and involved:

i) Procuring Smokefree App premium digital licences which included:

- free access to the premium features including an always on offer of evidence based behavioural support and 24/7 access to expert trained specialist advisers
- free NRT (nicotine replacement therapy) like patches & inhalators
- free nicotine vapes and refillable liquids

ii) Targeted marketing campaign to increase uptake in health and care workforce;

iii) Employing a coordinator to facilitate the development of resources, collect data and report appropriately.

Promotional resources such as communications toolkit, posters, flyers, business cards, screen savers, social media stills and animation video were developed raise awareness & increase uptake. Several roadshows were held at multiple events to complement the digital promotion.

Results:

Since offer went live on 2nd of March (2026) there have been 178 registrations of interest, 117 app activations and 93 quit dates set, 11 quit to date (April 26). 148 staff patients' visitors have been engaged with at the roadshows.

Conclusion: An integrated digital cessation support for health and social care staff provides a tangible & practical way to support health and care workforce in various settings and across shift patterns and offer has been welcomed across NENC



Characteristics of users of French smoking cessation services from 2004 to 2018

I. Allagbé^{1,2}, A.L. LE FAOU^{2,3}

¹Outpatient Addictology Center, Georges Pompidou European Hospital, AP-HP Centre- Université Paris Cité, Paris, France., France

²Groupement d'Intérêt Scientifique du Réseau Français d'Excellence de Recherche sur Tabac, nicotine et produits connexes (GIS REFERTab), Paris, France

³Hôpital Européen Georges Pompidou - APHP Centre-Université Paris Cité, France

Objectives: Since their introduction in 2001, smoking cessation services (SCS) have expanded across all regions of France. We examined changes in the profile of persons who smoked (PWS) and attended a SCS participating in the national SCS database CDTnet between 2004 and 2018, in relation to national policies implemented during this time.

Methods: A prospective study of 131,280 adult PWS was conducted, using CDTnet data across three periods: 2004-2008 (during a 42% increase in tobacco prices), 2009-2013 (following a tobacco sales ban to minors) and 2014-2018 (marking the first national antismoking policy). Sociodemographic and medical characteristics, smoking behaviors and prescribed smoking cessation (SC) medications were analyzed cross-sectionally at the first consultation.

Results: Between 2004-2008 and 2014-2018, the mean age of SCS attendees increased from 44 to 47 years ($p<0.001$). Concurrently, the proportion of PWS without a school diploma rose from 19% to 22%, and unemployed PWS from 13% to 22% (both $p<0.001$). Clinical profile also changed, with smoking-related cancer prevalence doubling (3% to 6%, $p<0.001$). In addition, there was also a notable decline in those attending SCS on a personal initiative, dropping from 45% to 35% ($p<0.001$). Concerning smoking behaviors, the proportion of PWS with no prior quit attempts increased from 31% in 2004-2008 to 35% in 2014-2018 ($p<0.001$). While the mean number of cigarettes smoked daily was stable at 23 between 2004 and 2018, the proportion of both "light smokers" (≤ 10 cigarettes/day) and "heavy smokers" (≥ 41 cigarettes/day) significantly increased over time. Combined nicotine replacement therapy remained the most prescribed SC medication (44%) with varenicline prescriptions being low and significantly less frequent among SCS hospital-referred smokers compared to outpatients (1.6% vs. 4.5%, $p<0.001$).

Conclusions: Despite the implementation of tobacco control policies, challenges persist in reducing smoking behaviors in France, especially in underserved smokers. Between 2004 and 2018, increased SCS utilization among older adults and individuals with lower socioeconomic status underscored the importance of enhancing SCS availability in France to support the various profiles of PWS in quitting. Expanding SCS in primary care settings, and developing SC training in health professionals, are essential to improve quitting outcomes in PWS.



Youth

15:15 - 16:00

Reduced Craving Mediates Varenicline's Effect on Youth Nicotine Vaping Cessation

C. Gather¹, H. Reeder¹, J. Gilman¹, Z. Himmelsbach¹, M. Costello², M. Carothers², R. Schuster¹, A.E. Evins¹

¹Massachusetts General Hospital/Harvard Medical School, United States

²Massachusetts General Hospital, United States

Background: Addiction to vaped nicotine is increasingly common among adolescents and young adults. Varenicline increases vaping cessation in this population, however its mechanisms of action is unclear.

Methods: We conducted a secondary analysis of a three-arm randomized clinical trial (N = 261) comparing 12 weeks of varenicline and brief behavioral counseling, placebo and counseling, and enhanced usual care (EUC) to evaluate whether reductions in nicotine craving mediated the effect of varenicline on biochemically verified continuous nicotine vaping abstinence during weeks 9–12. We compare the varenicline group versus other groups and consider change in craving, assessed weekly from baseline through week 8, as a proposed mediator. Piecewise linear growth curve mediation models with two distinct slopes of QVC change, one from baseline to week 2 and one from week 2 to week 8, evaluated whether the trajectory of craving reduction mediated the relationship between treatment and abstinence, adjusting for baseline demographics, distress, and motivation to quit.

Results: Varenicline accelerated nicotine craving reduction through week 8, particularly over the first two weeks of treatment. Greater craving reduction was associated with higher likelihood of abstinence. The indirect effect of varenicline treatment through the slope of craving reduction in weeks 0-2 was an increase in abstinence rate of 0.124 (SE 0.04, $p = <.001$; 95% CI: 0.05, 0.20) with an additional 0.031 increase via an indirect effect through the slope of QVC reduction over weeks 2-8 (SE 0.02, $p < .05$; 95% CI: -0.01, 0.07). Together, these effects account for 35.2% (95% CI: 14.8%, 55.5%) of varenicline's effect, which was increased abstinence rate of 0.442 (SE 0.06; $p < 0.001$; 95% CI: 0.33, 0.55). Varenicline had a significant direct effect on abstinence beyond the mediated pathway (0.29; 95% CI: 0.16, 0.43, $p < 0.001$), indicating additional mechanisms of action. Exploratory analyses did not show evidence of further mediation by changes in distress or withdrawal symptoms other than craving.

Conclusions: Craving reduction partially mediates the effect of varenicline on nicotine vaping cessation among adolescents and young adults. These findings identify craving as a key therapeutic mechanism and suggest that targeting craving may enhance treatment outcomes.



Empowering Youth Against Tobacco Industry Interference: A global collaborative approach

M. El Osta¹, C. Martin¹, J. Avenel¹, C. Munar-Fonseca¹, R. Guignard¹, V. Nguyen Thanh¹

¹Santé Publique France, France

Background:

The implementation of the WHO Framework Convention on Tobacco Control (FCTC) faces significant challenges due to tobacco industry (TI) interference, which undermines the development and enforcement of effective tobacco control policies worldwide. Such interference enables the TI to target new consumers, particularly young people, fostering lifelong addiction around the world. Addressing this issue requires international cooperation and concerted global efforts to counter TI strategies and protect public health.

Aims:

This project aims to equip national and international non-governmental organizations (NGOs) with co-created communication materials. These resources are designed to raise awareness among young people about damage to health and environment caused by tobacco and new nicotine products and to inform them about marketing strategies of the TI.

Methods:

In 2024, the WHO FCTC Knowledge hub for Article 5.3 and the WHO FCTC Knowledge hub for Public awareness (Article 12) gathered six representatives from youth NGOs worldwide to exchange perspectives on protecting youth from TI's harmful tactics. Through this collaboration, a strategy was co-developed to inform and empower young people, resulting in the production of royalty-free communication materials covering six key TI tactics. A qualitative pretest was conducted in 2025 in nine countries to assess the perception of the materials among young people and to identify areas for improvement.

Results:

Pretest results demonstrated that the communication materials were perceived as legitimate and informative by all participants regardless of their socio-cultural background. However, some areas for improvement were identified to ensure universal understanding. Following the integration of participants' feedback, they were revised and made available through the project's networks and website.

Conclusion:

This project fosters intersectoral and international collaboration among diverse actors (public health agencies, universities and NGOs) from various world regions to counter the TI's global influence. By empowering young people to recognize and resist TI activities, the initiative aligns with FCTC principles and provides insights into the value of a collective and global response in protecting the right for the highest standards of health for all.

Perceptions of emerging nicotine products among Polish adolescents: the role of marketing and everyday contexts.

J. Nowicka-Janik¹, J. Domaradzki², A. Tyranska-Fobke¹, E. Chawlowska², D. Kaleta³, M. Miller⁴, L. Balwicki¹

¹Medical University of Gdansk, Poland

²Poznan University of Medical Sciences, Poland

³Medical University of Lodz, Poland

⁴Medical University of Gdańsk, Poland

Background

The use of emerging nicotine products (ENPs), including e-cigarettes, heated tobacco products, and nicotine pouches, has been increasing among adolescents worldwide, including in Poland. This trend raises concerns about early nicotine exposure and the normalization of use. This study aimed to explore how Polish adolescents perceive tobacco and nicotine products, with particular attention to the role of marketing, product design, and everyday social environments in shaping product appeal, accessibility, and normalization.

Methods

A qualitative study was conducted between September and October 2024 among twenty adolescents aged 12–17 years (10 female, 10 male) from urban and rural areas across Poland. Participants, who reported occasional or regular use of nicotine products in the past 30 days, were recruited through purposive sampling via online forums. Individual semi-structured, in-depth interviews were conducted and audio-recorded. The data were transcribed and analyzed using reflexive thematic analysis to identify patterns related to perceptions of product appeal, marketing exposure, peer influence, and accessibility.

Results

Adolescents reported high visibility of ENPs in both physical and online environments. Products were frequently discussed among peers using brand-specific language and were perceived as socially desirable, modern, and convenient. Flavors, colorful packaging, and appealing design contributed to perceptions of novelty and reduced harm. Participants described widespread exposure to marketing, including point-of-sale displays, social media content, direct promotions, and free samples, particularly in leisure settings. Easy underage access to ENPs was commonly reported. Compared to traditional cigarettes, ENPs were perceived as more socially acceptable and less stigmatized. These perceptions were reinforced through peer networks and integrated into daily routines, supporting the normalization of use.

Conclusions

Adolescent perceptions and use of nicotine products are strongly influenced by marketing visibility, product design, and social context. Despite existing regulatory restrictions in Poland, ENPs remain highly accessible and prominently promoted in youth environments. These findings reflect young people's experiences and perceptions rather than objective measures of exposure, but they suggest potential gaps in current regulatory frameworks, particularly regarding indirect and venue-based marketing. Taken together, these insights indicate the need to consider strengthened policy measures and targeted health education to address the perceived normalization of ENPs among adolescents.



At risk from the start? Can reasons for first time use predict youth's current vaping status?

J. Hofman¹, V. Maes², B. Deforche¹, M. Verloigne¹

¹Ghent University, Belgium

²Kom op tegen Kanker (Stand up against Cancer), Belgium

Background: Youth e-cigarette use has increased sharply, yet motives for first time use and their association with youth's vaping status remain understudied.

Aims: This study aims to describe adolescents' motives for first-time e-cigarette use and how these are associated with their current vaping status (experimental, regular or former user). Among current users, we additionally explored associations between motives for current use and past 30 days (P30D) use frequency.

Methods: We analysed 2024 cross-sectional survey data from 5,645 Flemish adolescents aged 12–18 (63% girls) recruited through convenience sampling. Adjusted multinomial logistic regressions assessed associations between 14 predefined motives for first use and current vaping status. Among current users, the relationship between motives for current use and P30D use frequency was examined using adjusted linear regressions.

Results: The most common motives for first use were curiosity (63.4%), trying it with friends (43.3%), and flavour appeal (36.3%). Adolescents who reported trying vaping to control their weight (OR=3.86; 95%CI[1.51,9.85]), to calm down (OR=4.93; 95%CI[3.08,7.90]), to have a moment for themselves (OR=4.15; 95%CI[2.34,7.37]), because it seemed like it would taste good (OR=2.18; 95%CI[1.54,3.11]), because many friends use them (OR=2.06; 95%CI[1.45,2.94]) or because they believed it was not addictive (OR=2.92; 95%CI[1.51,5.65]) had higher odds of being regular users compared to experimenters. None of the motives significantly predicted former versus regular use (all $p > .05$). Among current users, motives for current use associated with higher P30D included vaping for stress relief ($B=6.96$; $SE=0.97$), because they like the different flavours ($B=3.12$; $SE=1.15$), as a moment for themselves ($B=3.91$; $SE=1.08$), the perception that vaping is less harmful than smoking ($B=4.09$; $SE=1.37$), ease of access ($B=3.26$; $SE=1.40$) and out of habit ($B=6.14$; $SE=1.11$).

Conclusion: Adolescents reported diverse motives for first-time e-cigarette use, with emotional regulation, taste appeal, and peer influence predicting regular use. Among current users, emotional regulation, appealing flavours, and ease of purchase were linked to more frequent use. These findings highlight the need to strengthen coping skills and address flavour appeal, accessibility, and misperceptions of harm.



Perceptions, Susceptibility to, and Use of Smart Vape Devices among Young Adults

L. Fucito¹, A. Sharma¹, S. Kunchay¹, K. Witkiewitz², K. DeMartini¹, S. O'Malley¹

¹Yale University, United States

²University of New Mexico, United States

Smart vape devices are electronic nicotine delivery systems that integrate connected, sensor-based, and app-enabled features beyond standard vapes. Common functions include Bluetooth pairing with smartphone apps, puff/use tracking, device customization/controls (e.g., power settings, locking), and on-device screens or gamified elements. While the product landscape is rapidly expanding, the evidence base remains limited. We evaluated U.S. young adults' awareness, perceptions, and use of smart vape devices within an ongoing 12-month longitudinal, national observational study of alcohol use disorder risk (parent study N=350). We developed and appended a smart vape device survey to the protocol for remaining participants. All respondents first reported whether they had ever vaped; follow-up smart vape items were restricted to those with any vaping history. A total of 178 young adults ages 18-25 completed the survey between December 2025 and April 2026. Participants were 59.6% male, mostly students (67.4%), and predominantly white (71%), with a mean age of 21.7 (SD=1.9) years. Overall, 61.2% (109/178) reported a lifetime vaping history. Among those with any vaping history, ~10% (10/109) reported ever using smart vape devices, and only 1 participant reported current use. Among those with prior smart vape use, the most used features were puff counting and e-juice monitoring (6/10 each) and nicotine consumption tracking (5/10). App engagement was generally low; only 1 checked multiple times daily. The most frequent reasons for trying smart vapes were curiosity about technology (6/10) and interest in something trendy/novel (5/10). Most reported no change in their vaping due to smart vape use (8/10). One reported decreased vaping due to reduced battery life, whereas another reported increased use due to heightened salience. Most prior users were susceptible to future smart vape use (70%; 7/10). Among those without a smart vape use history, 42% (42/99) were aware of devices, typically via social media and/or friends/family; 35% (35/99) were susceptible to future smart vape use. Across participants, most were unaware that devices may collect and transmit usage data via Bluetooth (59%; 64/109) and did not know who could access collected device data (93%; 101/109). These findings have important implications for tobacco control policy and intervention.



Testing the Effects of Oral Nicotine Products on Reducing Combustible Cigarette Use in Young Adults: A Pilot Study

R. Cassidy¹, H. L'Etoile¹, M. Bello², C. Murphy¹, K. Arthur¹, S. Colby¹

¹Brown University, United States

²Medical University of South Carolina, United States

BACKGROUND: Quitting smoking before the age of 30 dramatically reduces tobacco-related mortality relative to those who quit later in adulthood, resulting in risk levels comparable to those of never-smokers. For young adults who smoke but who are unwilling to quit nicotine use altogether, it is critical to examine the effects of shifting nicotine use from its most harmful form, smoking, to lower-risk noncombustible oral nicotine products (ONPs) such as nicotine pouches. Two brands of nicotine pouches have FDA premarket approval and are popular among young adults who smoke in the US. Thus, they may be an acceptable reduced-harm product in this group. Pilot trials among adults have shown that ONP use reduces smoking; however, this has not been tested among young adults.

AIM: To determine the effects of switching to nicotine pouches on young adult smoking behavior.

METHODS: In an ongoing 8-week open pilot trial of product switching for young adults (ages 21-29 years) who smoke, participants are asked to switch from smoking to nicotine pouches, with three flavors available. After a one-week baseline period, participants are instructed to switch completely to nicotine pouches. At biweekly in-person check-ins, participants report on their cigarette and ONP use.

RESULTS: Thus far, N=9 participants have completed 4 weeks of the trial (M age 24.6, 55% female). All 9 reduced their smoking relative to baseline, and N=2 (22%) reported no smoking at their most recent assessment. A linear mixed model approach examining the effects of session on outcome showed a significant reduction in total cigarettes reported over time ($B = -2.19$, $SE = .69$, $p = .003$), but nicotine pouch use did not significantly increase across all participants ($B = 2.5$, $SE = 3.41$, $p = .46$). Nicotine pouch use increased linearly across the trial for 6 out of 9 participants; of these, using more nicotine pouches was significantly correlated with using fewer cigarettes ($r = -.39$, $p = .04$).

CONCLUSIONS: Preliminary data show that exposure to ONPs may be associated with decreased smoking, though more work is needed to ensure full switching to ONPs and away from smoking.



School bullying and tobacco use among vulnerable Parisian adolescents: Findings from the VAVISA pilot study

F. El-khoury¹, M. Dupont^{2,3}, H. Pohn⁴, C. Gorgiard²

¹INSERM, Pierre Louis Institute for Epidemiology and Public Health, France

²Unité médico-judiciaire, AP-HP, Hôtel Dieu, Paris, France

³Association Centre de Victimologie pour Mineurs (CVM), Paris, France, France

⁴Association Centre de Victimologie pour Mineurs (CVM), Paris, France

Background: Adolescent tobacco use remains a critical public health concern, particularly among vulnerable populations. While bullying has been associated with various health risk behaviors, its relationship with tobacco use among youth engaged with child welfare and social services remains underexplored.

Objective: This study examined the association between school bullying and tobacco use among adolescents and young adults in Paris, using data from the VAVISA pilot study.

Methods: We analyzed data from 113 participants aged 15–21 recruited through an online anonymous survey in youth-serving facilities. School bullying was assessed using a continuous variable, and tobacco use was dichotomized as smoker vs. non-smoker. Multivariable logistic regression was used to examine the association between school bullying and tobacco use, adjusted for sex and age.

Results: The sample comprised 71 girls (62.8%) and 42 boys (37.2%), with a mean age of 18.4 years (SD = 2). Overall, 33.0% of participants reported current tobacco use, with no significant difference between boys and girls. Forty-two percent of participants reported experiencing school bullying. School bullying was significantly associated with increased odds of tobacco use (ORa = 1.80, 95% CI: 1.03–3.20) in the adjusted model.

Conclusion: This pilot study provides evidence of an association between school bullying and tobacco use among vulnerable adolescents in Paris. Larger prospective studies are needed to confirm these findings and identify mechanisms underlying the relationship between bullying and substance use in this vulnerable population.



Beyond Self-Report: Linking County-Level Commercial Cigar Tweet Rates to Tobacco and Cannabis Initiation Among US Youth and Young Adults

G. Kostygina¹, Y. Kim¹, M. Borowiecki¹, C. Carter¹, J. Kreslake², E. Hair², S. Emery¹

¹NORC at the University of Chicago, United States

²Truth Initiative, United States

Background. Despite growing evidence linking tobacco digital marketing to tobacco use, research has relied primarily on self-reported social media (SM) exposure measures subject to recall bias and endogeneity. Commercial SM content represents a uniquely tractable regulatory target (intentional, attributable to identifiable brand/vendor accounts, and detectable at scale using automated surveillance methods), yet it remains largely unregulated on major platforms.

Aims. This study develops a county-level measure of commercial SM content promoting cigars, little cigars, and cigarillos (CLCCs)--a product category limited digital marketing regulation--to examine prospective associations with CLCC, blunt, and cannabis initiation and use among US youth and young adults.

Methods. Geolocated tweets collected via Twitter's Historic PowerTrack API (January–December 2019; ~9 million posts) were classified as CLCC-promotional using supervised machine learning classifiers (F1=0.92 for relevance; F1=0.85 for commercial classification). We integrated the commercial tweets with data from two waves of a nationally representative longitudinal survey of US youth and young adults (aged 15–28; n=9,557). Monthly tweet rates per 100,000 county residents were linked to respondents by county of residence and survey date. Multivariable logistic regression controlled for demographic and behavioral covariates and state policies.

Results. Among baseline non-users, exposure to any commercial CLCC tweet activity in the 30 days prior to follow-up predicted initiation of current CLCC/blunt use (62–65% greater odds) compared to those residing in counties with no commercial CLCC promotion. A dose-response pattern was observed, with respondents in counties with 2 to <7 tweets per 100,000 residents having 72% greater odds of initiating CLCC use compared to those with no tweets. Cannabis initiation was also elevated among those exposed to any commercial CLCC tweet activity (45–56% greater odds), suggesting spillover effects from tobacco promotion to cannabis use.

Conclusion. County-level commercial CLCC tweet rates are prospectively associated with product initiation and cannabis use among youth and young adults, with effects observed across both tobacco and cannabis outcomes. These findings demonstrate the value of exogenous, geographically granular social media exposure measures for establishing marketing effects on health behavior--an approach transferable to European regulatory and surveillance contexts. They further underscore the urgency of expanding regulatory oversight of digital tobacco marketing.



Young Adult Engagement in Tobacco Control: Insights from the Student-led Side-Program at the 3rd AGILE Conference

K. Cieścińska¹, Ł. Balwicki¹, J. Łozyk¹, J. Duszyński¹, M. Gajewski¹

¹Medical University of Gdańsk, Poland

Background:

Medical students are highly exposed to smoking and other nicotine products as a result of unethical marketing and targeting strategies. Nevertheless, the Polish medical school curriculum offers limited guidance and training in tobacco counselling and nicotine prevention. Furthermore, opportunities for students to participate in tobacco control discussions and international prevention initiatives remain limited.

Aims:

To evaluate the perceived educational impact of a student-led tobacco control initiative based on feedback from a lung cancer prevention side programme.

Methods:

A Young Adult Side Leader programme was organised at the Medical University of Gdańsk as part of the 3rd AGILE Meeting Conference. The student-led panel featured international experts in tobacco control, public health, and lung cancer screening. Topics discussed included the history of IELCAP, comprehensive lung cancer screening, and tobacco endgame strategies, including the concept of the Tobacco Free Generation. A one-month follow-up survey assessed changes in participants' knowledge and their intention to engage in nicotine prevention activities following the panel. The survey included a combination of yes/no, rating (scale 1-5) and short-answer questions.

Results:

Of the 20 participants, 15 completed the survey. Respondents reported high perceived educational value and increased awareness of nicotine prevention challenges among young people (mean score = 4.65/5) together with an improved understanding of emerging nicotine products (4.50/5). Participants also reported increased confidence in identifying misinformation related to nicotine products (4.50/5) and increased motivation to learn more about tobacco and nicotine-related issues (4.53/5). The majority of participants reported that they discussed nicotine prevention with their peers after the panel (93.3% answered "yes"). All respondents stated they would recommend similar workshops for other students. Other short written responses underlined the need for further initiatives for medical students, greater general youth engagement and stronger international collaboration and perspectives.

Conclusion:

Student-led initiatives integrated into international scientific conferences may provide an engaging and effective opportunity for increasing youth involvement and bridging the intergenerational gap in tobacco control and nicotine prevention. These preliminary findings demonstrate the potential value of involving future healthcare professionals in a variety of tobacco-prevention activities.

Examining the Complex Relationships between Discrimination and Cigar Use Behaviors among U.S. Black and Hispanic Young Adults

C.S. Fryer¹, S. Pike Moore², K. Sterling³

¹University of Maryland, United States

²Case Western Reserve University SOM, United States

³Rutgers University, United States

Background: Although cigarette smoking has declined in the United States, alternative tobacco product use, such as little cigars and cigarillos (LCCs), remains a significant public health concern. Non-Hispanic Black (NHB) and Hispanic (HIS) populations continue to experience disproportionately high rates of tobacco-related morbidity and mortality. The widespread availability of LCC increases the appeal of cannabis and contributes to co-use disparities which occur at higher rates among NHB and HIS populations. Despite these disparities, limited research has examined structural factors contributing to these outcomes. Discrimination is a fundamental social determinant of health that shapes inequitable exposure to risk and differential access to resources and opportunities.

Aim: We investigated the association between discrimination and LCC use among Black and Hispanic young adults.

Methods: The sample was drawn from a cohort of young adults (18-34 years of age) who participated in Wave 4 of the C'RILLOS study. Data were subset to specifically examine those populations who were oversampled in the study; self-identify as NHB or (HIS) (n=449). The primary dependent variable examined was past 3-month LCC use and the primary independent variables included five subscales from the Perceived Experiences of Discrimination Questionnaire (PEDQ). Individual logistic regression models were used to evaluate interaction between intersections of race, ethnicity and sex with PEDQ and exposure to pro-tobacco marketing.

Results: Discrimination was significantly associated with greater odds of LCC use. However, there were unique qualitative differences in select forms of racial and ethnic discrimination by population intersection. For NHB men, race-based maltreatment from police and pro-tobacco marketing exposure were both associated with significantly greater odds of LCC use; for HIS men, the primary predictor was the experience of threat or aggression; for NHB women, the primary predictor was exposure to marketing.

Conclusions: Our findings help elucidate structural factors associated with LCC use among NHB and HIS young adults in the U.S. Continued surveillance of tobacco and cannabis co-use among these populations is critical given their historical exclusion from U.S. tobacco regulatory science. Understanding these evolving patterns is essential for informing interventions that reduce health inequities and advance health justice.



Title: Attentional Bias and Craving Predict Distinct State-Dependent Neural Responses to Nicotine Cues in Young Adult Vapers but Not Smokers

K. Iturralde^{1,2}, K. Boparai², H. Lin^{1,2}, P. Selby^{1,2}, L. Zawertailo^{1,2}

¹University of Toronto, Canada

²Centre for Addiction and Mental Health, Canada

Introduction: Attentional bias (AB) and craving are key behavioural markers of cue reactivity and are thought to reflect the motivational salience of drug-related stimuli. In cigarette smokers, both have been linked to neural activity in salience, reward, and cognitive control networks. However, the extent to which these relationships exist in exclusive e-cigarette users remains unclear. This study examined whether individual differences in AB and craving are associated with cue-evoked brain activation in young adult smokers and vapers across sated and abstinent states.

Methods: Young adults aged 18-25, who were exclusive e-cigarette users (n=22), exclusive cigarette smokers (n=21), or non-nicotine-using controls (n=18), completed an fMRI cue-reactivity task and an eye-tracking paradigm. Nicotine users were scanned twice (sated; overnight abstinent), while controls completed one scan. AB was indexed using relative fixation time to nicotine-related versus neutral cues. Whole-brain regression analyses were conducted to examine whether AB and subjective craving predicted cue-reactivity-related activation (nicotine>neutral contrasts) within each user group and state.

Results: Behaviourally, smokers demonstrated elevated AB relative to controls in both states, whereas vapers showed increased AB primarily during abstinence. A significant positive association between AB and subjective ratings of craving was observed in sated vapers ($r_s=0.611$, $p=0.003$), with no other significant relationships. At the neural level, only vapers showed significant associations. During abstinence, higher AB was associated with greater activation in the left anterior cingulate gyrus ($pFWE=0.008$), a region implicated in salience detection and cognitive control. In the sated state, higher craving was associated with greater activation in the left medial precentral gyrus ($PWE=0.03$), a frontal region involved in motor planning and action preparation. No corrected AB- or craving-related neural associations were observed in smokers.

Conclusion: AB and craving were selectively linked to neural cue-reactivity in vapers, with distinct state-dependent correlates. These findings suggest that vaping-related cue processing may be more tightly coupled to dynamic motivational and cognitive control systems, whereas smoking-related cue reactivity appears more stable and less dependent on individual differences in attentional or craving states. This highlights potentially distinct neurobehavioral mechanisms underlying nicotine dependence in young adult across product types.



Transgenerational consequences of grandparental smoking habits on grandchildren's development

S. Ratih¹, C. Wan Yuen¹, N.D. Nik Farid¹, N. Romadlona², M. Humairo², N. Suprobo²

¹Universiti Malaya, Malaysia

²Universitas Negeri Malang, Indonesia

Background: Research on the impact of smoking behaviour across generations has primarily focused on grandmaternal smoking during pregnancy, while the broader environmental transmission of smoking behaviours remains underexplored. This study aims to evaluate the possibilities of ecological transmission, other than in-utero transmission, regarding the effects of grandparental smoking behaviour on their offspring. **Methods:** A comprehensive search was conducted across multiple online databases, including PubMed, Embase, Web of Science, and Scopus. There were no restrictions on publication dates, study locations, or language to ensure a broad scope of relevant studies. From the 4133 identified articles, 3916 remained after duplicates were removed. Based on predefined eligibility criteria, 38 articles were selected for full-text assessment. The selection process involved multiple reviewers, and the data were independently extracted by multiple reviewers using a standardised protocol. The JBI critical appraisal tool was employed to assess the quality of included studies, with inter-rater reliability tests indicating moderate-to-high agreement.

Results: Seven articles were included in the analysis, measuring grandchildren's behaviour, BMI, fat mass, lean mass, and IQ related to grandparents' smoking. All studies were conducted in American and European settings. No records were found evaluating the cross-generational effects of grandparents' smoking on the development of grandchildren in Asian countries, despite relatively high smoking rates in the region. Indirect relationships occurred in the environmental transmission between grandparents' and grandchildren's smoking behaviour, with parental smoking as the mediator. Results suggested indirect environmental transmission between grandparents' smoking and grandchildren's outcomes. Significant associations were observed between grandparents' smoking status and grandchildren's physical and cognitive outcomes, with notable sex differences.

Conclusions: This review highlights the potential environmental pathways through which grandparents' smoking behaviour may influence grandchildren's behavioural, physical, and cognitive development. While the findings underscore the importance of intergenerational environmental factors, further research is needed to address existing gaps and clarify mechanisms.



How do we reach young target audiences for addiction research? Insights from an online study on shisha consumption

C. Fedler¹, D. Kotz^{1,2}, S. Klosterhalfen¹

¹Institute of General Practice (ifam), Centre for Health and Society (chs), Addiction Research and Clinical Epidemiology Unit, Medical Faculty and University Hospital Düsseldorf, Heinrich Heine University Düsseldorf, Germany, Germany

²Department of Behavioural Science and Health, University College London, London, United Kingdom

Background

Young people are a hard-to-reach population, especially with regard to addictive behaviours and longitudinal research. To date, little is known about effective strategies to recruit and retain them in such research.

Aims

This pilot study aimed to identify effective strategies for recruiting young shisha users into a longitudinal survey panel, and to assess retention across follow-up waves.

Methods

The SHISHA study (Social Habits and Insights in SHisha Use) was conducted in Germany (01/2024–12/2025) using an online questionnaire and registered in the German Clinical Trials Register (DRKS00033530). The study aimed to establish a panel of shisha users aged 14–40 years to assess their consumption patterns across time. Various recruitment strategies were tested, including social media, personal networks, and shisha bars. Targeted Instagram advertisements were implemented, and two different ad formats (voice-over vs. non-voice-over) were explored. Minors were recruited exclusively through schools with written parental consent. Current shisha users were invited to two follow-up surveys. Recruitment channels were assessed via self-reported information on how participants became aware of the study. Incentives and different formats of professionally designed recruitment materials were used to support recruitment.

Results

At baseline, 1,189 individuals participated, of which 48% (n=571) reported current shisha use. The proportion of male participants was 66.2% in the overall sample and 87.5% among current users. Among minors, 2,008 parental consent forms were distributed via schools; 56 minors participated, with one reporting current shisha use. Social media was the most frequent recruitment channel, particularly among current users aged 25–39 years (77.8%). The voice-over Instagram ad achieved greater reach and lower cost per visit than the non-voice-over version (627 vs. 308 website visits; €0.15 vs. €0.47 per visit). Among invited participants, 56.5% (177/313) completed at least one follow-up survey.

Conclusion

Digital recruitment strategies were central to engaging young adults who use shisha. In contrast, school-based recruitment of minors required substantial effort and participation remained limited. As a pilot study, these findings help to inform future recruitment and retention strategies. Future studies should further examine digital recruitment approaches and explore ways to better reach minors and more diverse user groups.



Keynote Lecture: Cristina Martínez

10:00 - 11:15 | AMPHITHÉÂTRE ROUSSY

Dual use and harm reduction

10:00 - 10:15

CHARACTERIZING DUAL USE AS A CONTINUUM OF CIGARETTE REDUCTION AND E-CIGARETTE SUBSTITUTION: IMPLICATIONS FOR HARM REDUCTION

N. Nollen¹, J. Ahluwalia², M. Arnold¹, L. Sanderson Cox¹, E. Leavens¹, M. Rice³, K. Pulvers⁴¹University of Kansas School of Medicine, United States²Brown University, United States³University of California Los Angeles, United States⁴University of California San Marcos, United States

BACKGROUND: Dual use includes individuals who primarily vape and those who primarily smoke, yet most studies treat dual use as a single category, obscuring meaningful variation in benefits and risks. Although recent studies have characterized dual use on a continuum of combustible cigarette use, this approach does not account for concurrent vaping, a critical component for evaluating harm reduction. **METHOD:** Using data from a switching trial, week 6 dual use was conceptualized as a continuum defined by (1) cigarette use, reflected as the percentage of baseline cigarettes smoked per day (CPD) and (2) combined cigarette and vaping use, calculated from objectively measured grams of e-liquid use alongside self-reported CPD, expressed as the proportion of total nicotine consumption derived from e-cigarettes. This second measure represents the degree of substitution of cigarettes with e-cigarettes at week 6. These metrics were evaluated as predictors of changes in self-reported respiratory symptoms and creatinine adjusted NNAL, a tobacco-specific carcinogen. Dose-response relationships assessed whether increasing substitution and reductions in cigarette smoking were associated with progressive improvements in outcomes. **RESULTS:** At week 6, dual users (n=64, 59.4% male, 100% Black or Latino) smoked 28% of baseline CPD (3.3 ± 4.0 CPD) and derived 77% of total consumption from e-cigarettes. Participants showed reductions in respiratory symptoms (-3.3 ± 8.0 , $p = .002$) and NNAL (-55.9 ± 88.6 ng/ml, $p < .001$) from baseline. Both percent of baseline CPD and substitution were significant predictors of improvements in respiratory symptoms and NNAL ($p < .02$ for all). When categorized into quartiles, substitution demonstrated a consistent linear dose-response relationship, such that each quartile experienced progressively greater improvement in respiratory symptoms [Q1 (28% substitution): $+6.7 \rightarrow$ Q4 (95% substitution): -7.8 , $p = .008$] and NNAL [Q1: $-16.0 \rightarrow$ Q4: -77.1 , $p = .037$]. Percent of baseline CPD showed no dose-response pattern for either outcome. **DISCUSSION:** While both measures capture aspects of dual use, the combined measure of cigarette and vaping use more consistently reflects a graded exposure-response relationship. Findings suggest that accounting for the relative balance of smoking and vaping may provide a more informative framework for evaluating harm reduction than cigarette reduction alone.



Using oral nicotine pouches to quit or reduce other nicotine and tobacco products: A qualitative study among U.S. adults

C.N. Kyriakos¹, W. Li¹, M.E. Morean¹, R.R. Ouellette¹, A. Sharma¹, K.W. Bold¹, G. Kong¹

¹Yale School of Medicine, United States

Background: Oral nicotine pouches (ONPs) are increasing in popularity. Some individuals report using ONPs to quit or reduce other nicotine/tobacco product use, yet little is known about their reasons and experiences.

Aims: This study examined how adults use ONPs to quit or reduce other nicotine/tobacco products.

Methods: We conducted in-depth interviews (September-October 2024) with 30 U.S. adults aged 21+ reporting past-30-day ONP use on ≥ 20 days and other nicotine/tobacco product use ≤ 10 days (30% female, 56% non-Hispanic White, mean age=30.4 years, SD=6.75). Most used ONPs daily (86.7%) and did not report other product use in the past 30 days (76.7%) but had prior use (86.7%). Semi-structured interviews explored reasons and experiences using ONPs to quit or reduce other products. Interviews were audio-recorded, transcribed, and double coded ($\kappa=0.87$; agreement=99.4%).

Results: Twenty participants (66.7%) reported using ONPs to quit or reduce other products, including cigarettes, e-cigarettes, cigars, and smokeless tobacco. Reasons centered on perceived harm reduction, including health experiences (e.g., respiratory symptoms from vaping). Several reported unsuccessful quit attempts using nicotine replacement therapy (NRT), while others chose ONPs over NRT (e.g., "I was going to do the patches, but I thought I'll try these"). Switching most commonly involved abrupt substitution (e.g., "It was a hard switch"); some used gradual transitions ("I started using [ONPs], then I weaned myself off smoking, and then I stopped smoking"). Participants generally found switching easy, as ONPs satisfied nicotine cravings, allowed nicotine modulation (e.g., "I can take the pouch out and back in...control the intensity"), and provided discreetness and oral fixation. Several described continued ONP use to avoid returning to former products but felt ONPs maintained their dependence on nicotine.

Conclusion: Findings provide novel insights into why and how some individuals use ONPs to quit or reduce other products. Participants described switching through abrupt substitution or gradual reduction, facilitated by product attributes (e.g., nicotine strength/delivery) and harm reduction perceptions. Findings may not be generalizable to individuals with less frequent ONP use or poly-product use. Understanding ONP's role in cessation, effects on nicotine dependence, and impact on use of evidence-based cessation treatments is critical for informing regulatory approaches.



The effect of regular vs occasional e-cigarette use on cigarette reduction amongst continuing daily smokers

K. Myers Smith¹, H. McRobbie², D. Przulj², D. Ladmore², F. Pesola², P. Hajek²

¹QMUL, United Kingdom

²Queen Mary University of London, United Kingdom

Background and Aims: Many people who attempt to quit smoking with an e-cigarette (EC) are unsuccessful in stopping smoking completely.

Such 'dual use' has prompted debate, with concerns that continued smoking may limit potential benefits. However, ongoing EC use may still be beneficial if it leads to sustained reductions in cigarette consumption. Emerging evidence suggests that smokers who use ECs daily alongside cigarettes are more likely to achieve reduction in cigarette consumption over time than those who use ECs non daily. This has important implications for clinical practice and advice given to smokers unable to quit.

Here we present data from a randomised trial of ECs, examining differences in smoking behaviour amongst regular and occasional EC users.

Methods: The Vapeline trial recruited 1170 adult smokers seeking help to quit smoking. 781 were provided with an EC starter kit. We compared changes in cigarettes per day (CPD) amongst dual users who were either using their EC regularly (5-7 days a week) vs. those using them occasionally (1-4 days a week) at 4, 24 and 52 weeks following their quit day. Negative binomial regression was used to analyse the data with robust standard errors to regress CPD at each follow-up on dual user status while adjusting for baseline CPD, age and nicotine dependence.

Results: At 4-week follow-up, regular EC (N=245) users smoked 28% fewer CPD compared to occasional EC users (N=41; IRR=0.72, 95%CI: 0.62-0.84, $p<0.001$) equivalent to approximately 3.5 CPD, average marginal effect (AME) = -3.5, 95%CI: -5.1 to -1.9). At 24 weeks, regular EC users (N=241) smoked 30% fewer CPD (vs. occasional, N=68; IRR=0.70, 95%CI: 0.62-0.79, $p<0.001$), approximately 4 CPD (AME = -3.8, 95%CI: -5.1 to -2.5). Similarly at 52 weeks, we found that regular EC users (N=160) smoked 26% fewer CPD (vs. occasional N=48; IRR=0.74, 95%CI: 0.62-0.87, $p<0.001$), approximately 3 CPD (AME=-2.9, 95%CI: -4.5 to -1.3).

Conclusion: Among smokers who do not achieve complete abstinence, regular EC use was associated with persistent reductions in daily cigarette consumption. This pattern supports the potential role of regular EC use as a harm reduction strategy for people unable or unwilling to stop smoking completely.



Trends in Ever and Current Nicotine Pouch Use Among U.S. Adults Using Commercial Tobacco Products, 2021–2024

A.L. Merianos¹, J. Lambert¹, D. Petrovitch², K.R. Hamilton-Moseley³, B. Jewett³, K. Choi³

¹University of Cincinnati, United States

²Texas Tech University, United States

³National Institute on Minority Health and Health Disparities, United States

Background: Nicotine pouches are a rapidly emerging tobacco product in the U.S., yet population-level use patterns remain understudied. Identifying adult nicotine pouch use trends is important for informing tobacco control interventions and regulatory policies to reduce the potential impact of these newer tobacco products on public health.

Aims: This study examined the 2021-2024 trends of ever and current nicotine pouch use among U.S. adults who used commercial tobacco products.

Methods: We analyzed nationally representative YouGov survey data collected in 2021 (n = 1,700) and 2024 (n = 3,200) from U.S. adults who used commercial tobacco products. We calculated prevalence estimates of ever and current nicotine pouch use overall and by sociodemographic characteristics and current tobacco product use. Multivariable logistic regression models were fitted to estimate adjusted odds ratios (AORs) and 95% confidence intervals (CIs).

Results: Between 2021 and 2024, the prevalence of ever nicotine pouch use increased from 16.4% to 31.1% (AOR = 2.87, 95%CI = 1.63-5.05) and current use increased from 3.0% to 10.2% (AOR = 4.67, 95%CI = 2.70-8.10). The prevalence of ever or current nicotine pouch use increased significantly across nearly all sociodemographic and tobacco product use categories. Specifically, the largest increases in ever and current nicotine pouch use, respectively, occurred among those who were male (+15.7%, AOR = 2.64, 95%CI = 1.86-3.75; +8.8%, AOR = 4.68, 95%CI = 2.48-8.84), Black or African American (+20.3%, AOR = 4.63, 95%CI = 2.38-9.01; +10.3%, AOR = 5.43, 95%CI = 1.65-17.91), with a college degree (+19.8%, AOR = 2.24, 95%CI = 1.28-3.89; +15.6%, AOR = 5.08, 95%CI = 1.83-14.07), with an annual household income < \$50,000 (+17.6%, AOR = 3.53, 95%CI = 2.47, 5.04; +7.9%, AOR = 7.96, 95%CI = 3.62-17.54), and currently used smokeless tobacco products (+34.7%, AOR = 5.31, 95%CI = 2.83-9.97; +31.0%, AOR = 6.12, 95%CI = 2.82-13.32).

Conclusion: Nicotine pouch use among U.S. adults who used commercial tobacco products increased exponentially between 2021 and 2024 across most sociodemographic and tobacco use groups. Findings underscore the rapid uptake of nicotine pouches and the need for continued surveillance and regulatory attention to these emerging nicotine products.



Evaluating Concerns about Adverse Behavioural Effects of Dual Use in the Population Assessment of Tobacco and Health (PATH) Longitudinal Survey

L. Dawkins¹, A. Selya², S. Kim², M. Sembower², M. Hannon², J. Gitchell², S. Shiffman²

¹Pinney Associates, United Kingdom

²Pinney Associates, United States

Background: Switching completely to electronic nicotine delivery systems (ENDS) can reduce harm in adults who smoke; however, there are concerns about whether dual-using ENDS and cigarettes could produce higher combined risks and discourage complete switching.

Aims: We operationalized three empirically-testable, common concerns about dual use: (C1) that dual use fails to reduce, or increases, smoking-related risk; (C2) that dual use induces “safe haven” beliefs that discourage complete switching; and (C3) that dual use perpetuates cigarette smoking. This project tests each concern using data from the Population Assessment of Tobacco and Health (PATH), a longitudinal study representative of US adults. We pre-registered analyses and evidence that would support vs. oppose each concern.

Methods: Drawing from consecutive wave-pairs (spanning Waves 3-7) in PATH, we defined two groups of adults reporting: (A) newly-incident dual use (NIDU i.e., exclusively smoked at T0 and dual-used at T1) and (B) continuing exclusive smoking (CES) at both T0 and T1. ES (N=5375) were matched to DU participants (N=909) using coarsened exact matching on sociodemographic characteristics. Outcomes for each concern (C1: smoking frequency & quantity, respiratory symptoms; C2: risk perceptions, quit intentions; C3: quit attempts and stopping smoking at T2) were compared across groups (DU vs matched-control ES) and over time (T0 to T1) before vs. after starting DU.

Results: Concern C1 was not supported, as NIDU were more likely to substantially reduce CPD vs. CES (32% reduced by 50%+ vs. 15%) and reported significantly lower respiratory symptoms after initiating dual use. Regarding C2, NIDU became more likely to intend to quit smoking within 6 months (reported by 14% before vs. 17% after initiating dual use). Additionally, risk perceptions of cigarette smoking directionally declined, except for reduced perceived risk of own nicotine/tobacco use among those who substantially reduced (by 50%+) their CPD. Finally, NIDU had a numerically higher rate of stopping smoking at T2 compared to matched-control CES participants (16.9% vs. 12.5%; $p=0.061$; Bayes Factor=5.83), opposing concern C3.

Conclusion: Results failed to support these common concerns about dual use, instead showing that dual use involves a reduction in risk and greater motivation and success in completely stopping smoking.



Population level tobacco and nicotine use patterns, trends and determinants

10:00 - 10:15

Nicotine product use among youth and young adults in Aotearoa New Zealand: Findings from the ITC Youth Tobacco and Vaping Survey 2024

R. Edwards¹, J. Nip², J. Zang², J. Stanley², J. Ball², A. Waa², J. Reid³, D. Hammond³¹Flinders University, Australia²University of Otago, New Zealand³University of Waterloo, Canada

Background and aim

Youth and young adulthood are key periods when nicotine product use may become established. In Aotearoa New Zealand (A/NZ) people 18 years and older can buy cigarettes and vapes in various retail settings. Nicotine pouches cannot be legally sold in A/NZ, but can be imported for personal use. The government has indicated their sale may be legalised in the near future. We aimed to assess prevalence of smoking, vaping and use of nicotine pouches among young people in A/NZ.

Methods

As part of the 2024 International Tobacco Control Youth & Young Adult Tobacco and Vaping Survey, we recruited youth (16-19 years, n=852) and young adults (20-29 years, n=2020) who lived in A/NZ into an online survey about smoking, vaping, and oral nicotine pouch use.

Results

Prevalence of established monthly vaping (currently vape at least monthly and ≥ 50 days vaping in lifetime) was 20.4% (95%CI: 17.6-23.5) for youth and 24.4% (95% CI: 22.4-26.5) for young adults. Prevalence was higher among Māori (36.4%, 95%CI: 29.4-44.1) and Pacific (28.5%, 95%CI: 19.7-39.3) youth compared to non-Māori-non-Pacific-non-Asian (13.1%, 95%CI: 10.5-16.2), and among Māori (40.0%, 95%CI: 35.0-45.2) and Pacific (35.1%, 95%CI: 28.4-42.4) young adults compared to non-Māori-non-Pacific-non-Asians (18.0%, 95%CI: 15.8-20.3).

Established smoking (currently smoke at least monthly and ≥ 100 cigarettes smoked in lifetime) was 2.6% (95%CI: 1.7-4.0) for youth and 11.6% (95% CI: 10.2-13.2) for young adults. Small numbers precluded analysis by ethnicity for youth. Among young adults, prevalence of established smoking was higher among Māori (22.2%, 95% CI: 18.3-26.7) and Pacific (15.5%, 95%CI: 11.1-21.2) compared to non-Māori-non-Pacific-non-Asian (8.0%, 95%CI: 6.7-9.6).

Established oral nicotine pouch use (currently use pouches at least monthly and at least 100 pouches used in lifetime) was less than 1% for both age groups.

Conclusions

Established vaping was common among youth and young adults, with substantial inequities in established smoking and vaping by ethnicity. Continued high smoking prevalence among young adults (particularly Māori and Pacific) contradict assertions that a tobacco-free generation has been achieved in A/NZ. The findings highlight the importance of continuing to implement policy measures to equitably protect young people from smoking and vaping initiation.



Is it better to have tried and failed to quit smoking with e-cigarettes or to have never tried e-cigarettes at all? Longitudinal findings from the US Population Assessment of Tobacco and Health Study

E. Klemperer¹, M. DeSarno¹, L. Kock², R. Wiley¹, M. Carpenter³, S. Higgins¹

¹University of Vermont, United States

²University College London, United Kingdom

³Medical University of South Carolina, United States

Background: E-cigarettes are an effective way to stop smoking but there is disagreement regarding their use as an explicit treatment strategy for smoking cessation. Given most attempts to quit smoking end in relapse, understanding whether an unsuccessful e-cigarette-aided quit attempt supports or inhibits eventual smoking cessation is important for informing clinical recommendations regarding use of e-cigarettes as a cessation aid for adults who smoke (AWS). We address this question using US nationally representative data from the Population Assessment of Tobacco and Health (PATH) Study.

Methods: Data came from PATH Waves 5 to 6 (2018 to 2021) and Waves 6 to 7 (2021 to 2023). AWS who reported a failed attempt to quit smoking during the year preceding the baseline wave were included. We used weighted logistic regression to assess the association between a failed attempt to quit smoking with the aid of e-cigarettes (Ecig Triers) vs without e-cigarettes (Non-Ecig Triers) and smoking cessation at the follow-up wave, adjusting for baseline age, education, race/ethnicity, sex, and average cigarettes/day. Sensitivity analyses compared Ecig Triers to AWS who used pharmacotherapy (but not e-cigarettes) in a past year quit attempt (NRT/Rx Triers) and AWS who tried to quit smoking without e-cigarettes but also reported recreational e-cigarette use in the past year (Mixed Triers).

Results: Included Wave 5 respondents (N=1,598) were 50.0% (95% CI=47.0, 53.0) female, 64.1% (95% CI=62.3, 66.8) white non-Hispanic, and smoked a mean 11.7 (95% CI=11.2, 12.3) cigarettes/day at baseline. Wave 5 Ecig Triers were more likely to achieve cigarette abstinence at Wave 6 (34.7%, 95% CI=27.8, 42.4) than Wave 5 Non-Ecig Triers (18.4%, 95% CI=15.9, 21.1; aOR=2.2, 95% CI=1.5, 3.3) and NRT/Rx Triers (13.8%, 95% CI=9.7, 19.4; aOR=2.9, 95% CI=1.5, 5.7) but not Mixed Triers (30.3%, 95% CI=19.6, 43.5; aOR=1.3, 95% CI=0.7, 2.7). Findings were replicated using Waves 6 to 7 (N=1,224).

Conclusion: US AWS who tried and failed to quit smoking with vs without the aid of e-cigarettes were more likely to eventually achieve smoking cessation. These findings suggest that trying e-cigarettes to quit smoking is associated with movement toward eventual cessation among adults who initially fail to quit smoking.



Beyond Prevalence: Trends in Monthly Nicotine Product Consumption Among U.S. Young Adults, 2013–2023

R. Sun¹, D. Mendez², K. Warner²

¹University of Alabama at Birmingham, United States

²University of Michigan, United States

Background: Assessments of nicotine product use in the U.S. typically focus on prevalence or frequency of use of individual products (e.g., cigarettes or e-cigarettes). With poly-product use prevalent, evaluating exposure to various products, and the implications of that exposure, requires a more comprehensive measure of all product use. That is particularly important for U.S. young adults whose nicotine product use has shifted significantly from cigarettes to e-cigarettes.

Aims: Using a novel measure – nicotine product days (NPDs) – we quantify U.S. young adults' exposure to 10 nicotine products from 2013-2023.

Methods: Using data from the Population Assessment of Tobacco and Health (PATH) Study, we measured total NPDs as the number of days the average individual used any nicotine product in the past 30 days. Total NPDs are additive across products, ranging from 0-30. We also constructed product-specific NPDs. Employing the first 7 waves of PATH, we examined trends in overall and risk-adjusted NPDs among U.S. young adults from 2013-2023. Risk adjustment assigns lower risks to non-combustibles and e-cigarettes than to conventional cigarettes to help evaluate the potential health risk implications of changing product use patterns. In addition, we assessed how NPDs varied across sociodemographic groups.

Results: Across all 18-24-year-olds, total NPDs averaged 2.4 through 2019, dropping to 1.6 from 2021-2023. Combusted product NPDs (primarily cigarettes) dropped precipitously from 1.88 in 2013 to 0.05 in 2023. E-cigarette NPDs rose from 0.33 to 1.13 in 2019 and then declined to about 1.0 from 2021-23. Non-combusted product NPDs (excluding e-cigarettes) fell from 0.2 in 2013 to 0.04 in 2023. Males had higher NPDs than females. Total NPDs did not vary systematically across races, but African Americans had higher combustible product NPDs (primarily cigars), while Whites had higher noncombustible and e-cigarette NPDs. Total NPDs varied inversely with both household income and self-assessed mental health status. Total risk-adjusted NPDs were 80% of non-adjusted NPDs in 2013 and 42% in 2023.

Conclusion: Shifting product use patterns among U.S. young adults did not substantially alter their nicotine product exposure through 2019. Total NPDs fell thereafter by a third. Risk-adjusted NPDs decreased steadily and substantially from 2013-2023.



The Smoking Legacy: How Three Generations of Tobacco Use Shape Grandchildren's Habits

S. Ratih¹, C. Wan Yuen¹, N.D. Nik Farid¹

¹Universiti Malaya, Malaysia

Background: Evidence suggests that smoking behaviour may be transmitted within families, yet most research focuses on parent-child relationships. Less is known about whether smoking patterns extend across three generations.

Aim: This study examines whether grandparental smoking is associated with smoking behaviour among grandchildren and whether this relationship operates through parental smoking.

Methods: Data were drawn from the Indonesia Family Life Survey (IFLS), a nationally representative longitudinal dataset. A three-generation dataset linking grandparents (G1), parents (G2), and grandchildren (G3) was constructed. The analytic sample included 1,025 male grandchildren aged ≥ 15 years. Smoking initiation was examined using survey-weighted logistic regression stratified by age group (≤ 18 years and > 18 years). Latent class analysis identified smoking behaviour typologies among smokers. The Karlson-Holm-Breen (KHB) method examined the association between grandparental smoking and grandchildren's smoking outcomes to assess mediation through parental smoking and socioeconomic context.

Results: Grandparental smoking was associated with higher odds of smoking initiation among both adolescents (adjusted OR = 1.76, 95% CI: 1.05–2.94) and adults. Among adults, combined exposure to both parental and grandparental smoking was associated with more than threefold higher odds of initiation (adjusted OR = 3.32, 95% CI: 1.33–8.27). Mediation analyses indicated that these associations were primarily driven by direct effects rather than mediation through parental smoking or socioeconomic factors, with adjusted odds ratios (ORs) for the total effects of 1.92 (95% CI: 1.15–3.20) and 2.54 (95% CI: 1.33–4.83) for adolescents and adults, respectively. Latent class analysis identified two smoking typologies in both age groups; however, neither grandparental nor parental smoking behaviours were associated with smoking intensity.

Conclusions: Grandparental smoking emerges as a robust and independent determinant of smoking initiation among grandchildren, even after accounting for parental smoking, providing compelling evidence of a direct multigenerational transmission pathway that extends beyond the traditional parent-child mechanism.



Projecting the end of the tobacco epidemic. Regional disparities in prevalence trajectories to 2040

H. Jamil^{1,2}, K. Katanoda², E. Tursan d'Espaignet³, K. Togawa⁴, S. Gilmour¹

¹Graduate School of Public Health, St. Luke's International University, Japan

²Division of Population Data Science, National Cancer Center Japan Institute for Cancer Control, Japan

³School of Rural Medicine, University of New England, Australia

⁴Early Detection, Prevention, and Infections Branch, International Agency for Research on Cancer (IARC/WHO, France)

Background

Ending the tobacco epidemic, an epidemiologic state defined by the absence of new initiation, has been adopted as SDG 3.a, which calls for strengthened implementation of the WHO FCTC across all countries. Country-level projections of when each population will reach a 5% prevalence threshold, and how many will do so within a generation, remain rare.

Methods

We fit a Bayesian hierarchical model to 583 national surveys from 193 countries between 1990 and 2024, jointly estimating current and daily prevalence for cigarettes, smoked tobacco, and any tobacco product using a stick-breaking construction that enforces nesting of the three indicators. Countries were pooled through 15 sub-regions, with age effects modelled by natural cubic splines and country-specific time trends. We reported prevalence of current use of any tobacco from 1990 to 2024 and projections to 2040 with credible intervals.

Results

Among men, fewer than one in ten countries will fall below 5% by 2040. Mean male prevalence is projected to be 18% in 2040 (95% CrI 12–25%), down from 27% in 2010. Male prevalence will drop by half in East Asia and Eastern Europe over this period, but will rise in parts of North Africa, the Middle East, and the Pacific. Among women, 42% of countries will fall below 5% by 2040. In Northern Europe prevalence will drop from 21% to 14%, Eastern Europe from 22% to 15%, and Western Europe from 25% to 18%. In contrast, prevalence in women in Southern Europe is projected to stagnate at 23%. Sub-Saharan African men show the most consistent regional decline, from 17% to 9%. Based on currently available data, only 17 countries (9%) for men and 81 countries (42%) for women are expected to pass or remain below 5% before 2040.

Conclusion

The 5% threshold remains within reach for only a minority of countries by 2040. Reaching it globally will require accelerated tobacco control in the high-prevalence regions of Asia, the Middle East, and the Pacific, alongside sustained prevention of initiation in already-low countries. The end of the tobacco epidemic remains a generational task.



Ten years of strengthening primary care support for tobacco cessation in North Macedonia (2016 – 2026): From Evidence to Policy

10:00 - 10:15

Building Primary Care Capacity to Treat Tobacco Dependence: Experience from the Global Bridges Project in North Macedonia

E. Kostovska Prilepchanska¹, A. Stamenova², S. Janevska³, M. Jarikj⁴, S. Williams⁵, K. Stavrikj⁴

¹Center for family medicine, Medical faculty Skopje UKIM, Macedonia [FYROM]

²Institute of Social Medicine | University Ss. Cyril and Methodius, Faculty of Medicine, Skopje North Macedonia, Macedonia [FYROM]

³Center for Family medicine, University Ss. Cyril and Methodius, Faculty of Medicine, Skopje, North Macedonia, Macedonia [FYROM]

⁴Center for Family medicine, University Ss. Cyril and Methodius, Faculty of Medicine, Skopje,, Macedonia [FYROM]

⁵International Primary Care Respiratory Group, London, United Kingdom

Background: Helping people quit tobacco is one of the most cost-effective health interventions globally and is mandated by the WHO Framework Convention on Tobacco Control. Despite this, support for tobacco cessation remains underprovided in North Macedonia. A scalable capacity-building programme was introduced through the Global Bridges Project, funded via IPCRG, to strengthen the knowledge, confidence, and competence of general practitioners (GPs).

Aims: We report on the implementation and outcomes of this capacity-building programme designed to influence the behaviour of GPs in treating tobacco dependence in North Macedonia.

Methods: Five Master Teaching Faculty members participated in an International Teachers Workshop in Sofia in March 2017, led by IPCRG expert faculty. In September 2017, a two-day workshop was held in Veles to train 25 primary care educators ("National Teachers") to deliver VBA training to frontline healthcare professionals. Prior to the workshop, training materials were translated and adapted for the Macedonian general practice context. The workshop enabled participants to develop skills in delivering VBA, taking into account the availability of pharmacological treatments. The training emphasized combined treatment approaches, which offer the best outcomes for tobacco dependence cessation.

Results: Evaluation results indicated that participants felt confident to proceed to the next phase of the project: delivering 11 educational workshops across the country between late 2017 and early 2018, reaching approximately 220 GPs. Within six months following training, 250 GPs reported offering VBA to 70% of their patients. Approximately 10% of smokers expressed a willingness to quit, most of whom were not heavy smokers. Patients responded positively to being asked about tobacco cessation by their GP. Following project completion, the educational programme was incorporated into the postgraduate curriculum for family medicine. Programme evaluation demonstrated a positive impact on the use of Very Brief Advice (VBA) in primary care, although challenges remained in systematically collecting data to assess patient health outcomes.

Conclusions: The "Teach the Teacher" cascade model proved effective in scaling up delivery of the VBA model in primary care. However, sustained impact requires broader system changes and stronger organizational support.



Randomised controlled trial of brief smoking cessation interventions in primary care in North Macedonia (BreatheWell)

K. Stavrikj¹, A. Stamenova², S. Williams³, S. Janevska¹, M. Jarikj Bojkoska¹, E. Kostovsak Prilepcanska¹, R. Jordan⁴, R. Adams⁴, K. Rai⁵, P. Adab⁴, A. Farley⁶

¹Center for Family medicine, University Ss. Cyril and Methodius, Faculty of Medicine, Skopje, Macedonia [FYROM]

²Institute of Social Medicine | University Ss. Cyril and Methodius, Faculty of Medicine, Skopje, Macedonia [FYROM]

³International Primary Care Respiratory Group (IPCRG), United Kingdom

⁴Department of Applied Health Sciences, University of Birmingham, United Kingdom

⁵Center for Family medicine, University Ss. Cyril and Methodius, Faculty of Medicine, Skopje, United Kingdom

⁶University of Birmingham, United Kingdom

Background: Around 46% of the adult population in North Macedonia regularly smoke. Despite this, cessation services and pharmacological treatment are not covered by health insurance or adequately available in the country, making quitting difficult.

Methods: Building on the Global Bridges project, we conducted a multicentre RCT in 31 GP practices in North Macedonia to test the effectiveness and cost-effectiveness of lung age (LA) or exhaled carbon monoxide (CO) feedback combined with very brief advice (VBA) for smoking cessation compared with VBA alone (randomisation, 1:1:1). All participants who decided to attempt to quit smoking were offered a behavioural support as part of the "ACT" component of VBA and were advised how to access pharmacological support from neighbouring countries. Participants (n=1368) were aged ≥ 35 years, smoked ≥ 10 cigarettes per day and were recruited regardless of their motivation to quit. The primary outcome was biochemically validated 7-day point prevalence abstinence at 4 weeks. To explore acceptability to GPs and patients a qualitative study was conducted including one-on-one interviews with 26 GPs and 31 participants. Data was analysed using the Framework analysis method.

Results: There was no evidence of a difference in biochemically confirmed quitting between intervention and control at 4wks (VBA + LA RR 0.90 (97.5%CI: 0.35, 2.27); VBA + CO RR 1.04 (97.5%CI: 0.44, 2.44)), however the absolute number of quitters was small (VBA + LA 1.6%, VBA + CO 1.8%, VBA 1.8%). Quantitative process measures indicated high fidelity to the intervention delivery protocols, but low uptake of behavioural support and pharmacotherapy. Qualitative interviews revealed some lack of understanding of the harms of smoking and a strong social/cultural influence on continued smoking. The importance of trust, strong relationships and communication between patients and GPs were key factors for patients' willingness to attempt cessation.

Conclusion: The trial found no difference in effectiveness for the tested interventions, and absolute quit rates were very low. However, conducting this rigorous trial and the findings have acted as a trigger point to advocate for primary care reforms, smoking cessation services and shifting patients' expectations of primary care services towards preventive care value.



Strengthening the Healthcare System Response to Tobacco Cessation in North Macedonia

S. Janevska¹, E. Kostovska Prilepcanska², M. Jarikj Bojkoska³, A. Stamenova⁴, K. Stavrikj³

¹Center of Family medicine, Medical Faculty, Skopje, Macedonia [FYROM]

²Center for Family medicine, University Ss. Cyril and Methodius, Faculty of Medicine, Skopje,, Macedonia [FYROM]

³Center for Family medicine, University Ss. Cyril and Methodius, Faculty of Medicine, Skopje, Macedonia [FYROM]

⁴Institute of Social Medicine | University Ss. Cyril and Methodius, Faculty of Medicine, Skopje, Macedonia [FYROM]

Background: Healthcare professionals play a crucial role in tobacco cessation services. Findings from the BCI national study in 2023 in Macedonia indicate that 70% of the smokers expressed a willingness to quit smoking following a conversation with a healthcare professional, however only 14% of smokers reported that have received counseling.

Aims: To address the lack of observable “buy-in” by health care professionals to the importance of delivering tobacco cessation services.

Methods: During a two-year period (2024-2025) we organised a series of coordinated system-level interventions. These included co-design involvement workshops with health professionals, community-based nurses and policy-makers to develop National Guidelines for evidence-based practice on tobacco cessation interventions at primary healthcare and Standard operating procedures for cessation services at the Tobacco Counselling Cessation Centres across the country (published in the Official gazette of the Republic of North Macedonia in 2025). Additionally, a skill building accredited programme was developed for healthcare professionals – general practitioners, dentists, gynaecologists, nurses and pharmacists and on-going trainings are conducted from September 2025 till present.

Results: A substantial number (700) of healthcare providers have completed the online accredited trainings, out of which 250 participated in additional in-person trainings. Trainings improved primary healthcare professionals' competencies in delivering structured brief cessation interventions, combining behavioural support, nicotine replacement therapy and pharmacotherapy in cessation services. These trainings are particularly timely and relevant as the National Insurance Fund has updated the essential medicines list, which now includes nicotine replacement therapies (transdermal patches and nicotine chewing gum), improving the access to WHO recommended cessation treatment.

Moreover, previously non-operational smoking cessation counselling centres were reactivated and their operational capacity was strengthened through the published standards, local trainings and workshops, especially at the Public Health Centres in Prilep and Bitola.

Conclusion: A decade of capacity building and real-world research with in-depth stakeholder mapping and long-term engagement has put in place the right building blocks to tackle the tobacco epidemic in North Macedonia: information, financing, access to medicines, trained and motivated workforce, and governance measures.



Community Engagement and Policy Dialog in Advancing Tobacco Control Legislation in North Macedonia

A. Stamenova¹, S. Janevska², E. Kostovska Prilepcanska², M. Jarikj Bojkoska², K. Stavrikj²

¹Institute of Social Medicine | University Ss. Cyril and Methodius, Faculty of Medicine, Skopje,, Macedonia [FYROM]

²Center for Family medicine, University Ss. Cyril and Methodius, Faculty of Medicine, Skopje, Macedonia [FYROM]

Background: Legislative liberalization has contributed to the normalization of tobacco use and delayed tobacco control policies in North Macedonia. In response, the Ministry of Health, in collaboration with the WHO Country Office and the Faculty of Medicine-Skopje, intensified efforts to strengthen tobacco control through behavioral research, implementation of the Global Youth Tobacco Survey, brief tobacco cessation interventions in primary healthcare, strengthening cessation services, stakeholder coordination, and support for a new Smoking Protection Law.

Aims: This study examines public and stakeholders' engagement activities and their contribution to advancing national tobacco control legislation.

Methods: Between November and December 2024 with support from the World Health Organization (WHO) in North Macedonia, we conducted 5 public forums and 3 focus groups engaging more than 250 participants, including university students, healthcare professionals, patients and media representatives. Four main themes evolved from the thematic data analysis: (1) public perceptions on tobacco use and smoking; (2) barriers for healthy lifestyle; (3) communication strategies; (4) community-informed activities for policy action.

Results: Participants demonstrated high awareness of tobacco-related harms but emphasized the strong social normalization, particularly in public spaces. Smoking was perceived as a social behaviour rather than a health hazard. Novel tobacco and nicotine products, including e-cigarettes and heated tobacco products, were perceived by many, especially the students, as safer alternatives to traditional smoking. Social pressures, limited awareness of cessation services and weak legal enforcement were identified as barriers to cessation. Participants expressed strong support for stricter tobacco control measures and smoke-free environments. Health professionals and family members were identified as trusted sources for communication on tobacco harms. Participants highlighted the value of personal narratives, youth-targeted messaging, civil society engagement, educational institutions and media partnerships as crucial in shifting social norms.

Conclusion: Public engagement activities provided context-specific evidence linking social norms, policy gaps and tobacco control needs in North Macedonia. These participatory processes helped translate the public perspectives into policy action, being presented at the Parliamentary Health Commission along with research conducted in North Macedonia, urging MPs to take action for comprehensive legislation protecting the public from the harmful effects of tobacco and nicotine products.



Keynote Lecture: Tessa Langley

14:00 - 15:15 |

Emerging Nicotine Products: Linking Formulation, Delivery, and Early Biological Effects

14:00 - 14:15

The Evolving Nicotine Product Landscape: A Comparative Framework

A. Rabenstein¹, A. Mahnke², A. Turcios³, K. Franzen^{4,5}, N. Mallock-Ohnesorg^{3,6}, E. Pieper³, M. Espenschied¹, C. Sandfort¹, A. Luch³, T. Rütther¹

¹Department of Psychiatry and Psychotherapy, LMU University Hospital, LMU Munich, Munich, Germany, Germany

²Department of Psychiatry and Psychotherapy, LMU University Hospital, LMU Munich, Munich, Germany., Germany

³Department of Chemical and Product Safety, German Federal Institute for Risk Assessment (BfR), Berlin, Germany, Germany

⁴Medical Clinic III, University Hospital Schleswig-Holstein, Campus Lübeck, 23562, Lübeck, Germany., Germany

⁵Airway Research Center North, Member of the German Center for Lung Research (DZL), 22927, Großhansdorf, Germany, Germany

⁶Institute of Legal Medicine, Goethe-University Frankfurt, Kennedyallee 104, 60596, Frankfurt/Main, German, Germany

The nicotine product landscape has become increasingly diverse and now comprises combustible cigarettes, heated tobacco products, electronic cigarettes, and oral nicotine products. These product classes differ considerably with respect to composition, mode of administration, and use behaviour, thereby complicating direct comparisons of nicotine exposure and associated effects. Nevertheless, cross-product comparisons can be facilitated when products are evaluated according to shared functional characteristics rather than strictly separated categorical definitions.

This presentation proposes a comparative framework based on central determinants of nicotine delivery and user exposure. Key dimensions include the route of administration (inhalational versus oral), formulation characteristics (e.g., tobacco-containing products, tobacco-free matrices, or synthetic nicotine formulations), and product-specific sensory features such as flavouring systems or capsule technologies. In addition, behavioural parameters inherent to product use—such as puffing behaviour in inhaled products or duration of oral retention in nicotine pouch products—represent important determinants of systemic nicotine exposure. The framework does not primarily aim to describe underlying mechanistic processes in detail, but rather to provide a structured approach for understanding how product design and use characteristics contribute to variability in nicotine delivery and consumption patterns across product classes. Defining these comparative dimensions establishes a conceptual basis for the interpretation of pharmacokinetic, behavioural, and early biological outcomes associated with different nicotine-containing products.

Such a comparative perspective further allows subsequent analyses of individual product categories within a unified conceptual structure and facilitates identification of similarities and differences in nicotine delivery profiles across emerging nicotine products.



Influence of Nicotine Pouch pH on Plasma Nicotine Kinetics: A Four-Arm Crossover Study

A. Turcios¹, A. Luch¹, T. R  ther², A. Rabenstein², E. Pieper¹, M. Kleine², K. Franzen³, F. Mayer²

¹German Federal Institute for Risk Assessment (BfR), Department of Chemical and Product Safety, Germany

²Department of Psychiatry and Psychotherapy, LMU Hospital, Munich, Germany

³University Hospital Schleswig Holstein (UKSH), MK III, L  beck, Germany

Background:

Nicotine absorption from oral nicotine pouches may be influenced by formulation characteristics, particularly pH, which affects nicotine protonation and bioavailability. However, comparative evidence on how pH modulation translates into systemic nicotine exposure remains limited.

Aims:

To investigate the effect of nicotine pouch pH on salivary pH changes and nicotine pharmacokinetics, compared with combustible cigarettes as a reference condition.

Methods:

In a four-arm crossover study, 15 adult cigarette users (18–60 years) with overnight nicotine abstinence (verified by exhaled CO <5 ppm and plasma nicotine <10 ng/mL) used three nicotine pouch formulations with identical nicotine content but differing pH (acidic pH 5.7, neutral pH 8.4, basic pH 9.2), and a self-selected combustible cigarette. Pouches were placed between the upper lip and gum for 30 minutes. Venous blood samples were collected up to 90 minutes post-use to assess plasma nicotine concentrations (LC-MS/MS). Salivary pH, craving, and adverse effects were assessed using validated instruments.

Results:

Nicotine pouch pH significantly influenced both salivary pH and nicotine pharmacokinetics. The basic formulation produced the highest plasma nicotine concentrations (C_{max}) and overall exposure (AUC), followed by neutral and acidic pouches. The basic pouch exceeded combustible cigarettes in total nicotine exposure despite slower absorption kinetics. No severe adverse events or clinically relevant oral effects were observed.

Conclusions:

Nicotine pouch pH is a key determinant of oral nicotine bioavailability and systemic exposure. Higher pH formulations enhance nicotine uptake and exposure, demonstrating a formulation-dependent mechanism of nicotine delivery in non-combustible oral products.



Nicotine Pharmacokinetics, Puffing Behavior, and Product Appeal of Flavoured Non-Tobacco Heated Products Compared with Cigarettes and Heated Tobacco Products

A. Mahnke¹, T. R  ther¹, A. Turcios², E. Pieper², S. Mair¹, K. Franzen³, A. Rabenstein¹

¹Department of Psychiatry and Psychotherapy, LMU University Hospital, Munich, Germany

²Department of Chemical and Product Safety, German Federal Institute for Risk Assessment (BfR), Berlin, Germany

³University Hospital Schleswig-Holstein (UKSH), MK III, L  beck, Germany

Background:

Flavour bans for heated tobacco products (HTPs) in the European Union have led to the introduction of nicotine-containing heated products using non-tobacco substrates such as rooibos. These products may bypass current regulation while maintaining nicotine delivery and product appeal.

Aims:

To compare nicotine pharmacokinetics, puffing behaviour, and subjective effects of a rooibos-based heated product, a conventional HTP, and combustible cigarettes.

Methods:

In a randomized cross-over experimental study, 20 occasional cigarette users without nicotine dependence used four products under ad libitum conditions: a rooibos-based heated product with activated flavour capsule, the same product with the capsule inactivated, a conventional HTP, and a combustible cigarette (CC). Venous blood samples were collected over 60 minutes to assess nicotine pharmacokinetics (C_{max}, T_{max}, AUC). Puffing behaviour was recorded, including total duration, number of puffs, puff duration, and puff volume. Subjective effects were assessed using the modified Cigarette Evaluation Questionnaire (mCEQ) and a visual analogue scale (VAS) for immediate re-use intention.

Results:

Nicotine exposure (AUC and C_{max}) was generally comparable across all products, with a trend toward higher AUC for CC. Rooibos- and tobacco-based heated products reached peak nicotine concentrations significantly faster than CC (4-6 vs 8 minutes). Heated products also showed larger puff volumes and longer puff duration compared with CC. The number of puffs was similar across conditions, while the total session duration was shorter for heated products due to device use limitations. Flavoured rooibos-based heated products showed higher mCEQ smoking satisfaction ratings and greater re-use intention on the VAS compared with all other products.

Conclusions:

Rooibos-based heated products and conventional HTPs delivered nicotine at levels comparable to combustible cigarettes. At the same time, heated products were associated with faster nicotine uptake and distinct puffing behaviour compared with cigarettes. Flavoured products showed higher subjective appeal and re-use intention despite similar nicotine delivery. Overall, product attractiveness appeared to be influenced more by sensory characteristics such as flavour than by pharmacokinetic differences, highlighting a potential regulatory gap for flavoured non-tobacco heated products.



Cardiovascular and Pulmonary Responses to Emerging Nicotine Products

K.F. Franzen^{1,2}, A. Rabenstein³, T. Mohr⁴, M. Lüthgen⁴, T. Rütter³, A. Mahnke³, A. Turcios⁵

¹University of Lübeck - MK III, Germany

²ARCN - DZL, Germany

³Department of Psychiatry, Ludwig-Maximilians-Universität (LMU), Germany

⁴University of Lübeck - MK III,, Germany

⁵German Federal Institute for Risk Assessment (BfR), Department of Chemical and Product Safety, Germany

Background: Emerging non-combustible nicotine products, including heated tobacco products (HTPs) and disposable electronic cigarettes, are increasingly used by young, often tobacco-naïve, adults. While positioned as reduced-harm alternatives, their acute cardiovascular and pulmonary effects remain incompletely characterized, particularly for novel variants, including rooibos-based HTPs and nicotine-salt disposables.

Aims: To characterize the acute hemodynamic, vascular, and small airway responses to a single session of conventional and emerging non-combustible nicotine products in healthy young adults.

Methods: Two complementary clinical studies were conducted. Study 1 was a four-arm randomized crossover trial in 20 healthy occasional smokers comparing combustible cigarettes, tobacco-based HTP, and rooibos-based HTPs with and without flavoring. Peripheral and central blood pressure, pulse wave velocity (PWV), augmentation index, heart rate, and serum biomarkers of endothelial activation and pro-thrombotic signaling (PAI-1, PDGF-AA, PDGF-AB/BB, thrombospondin-1, soluble PECAM-1) were measured at baseline and 7, 15, and 30 min post-exposure. Study 2 was a pre-post study in 17 tobacco-naïve habitual young adult vapers using an ELFBAR 600 disposable e-cigarette ad libitum for 30 min, with hemodynamic, arterial stiffness, and oscillometric airway parameters (R5, R5-20, and AX) assessed alongside puff topography.

Results: Across all HTP and combustible cigarette arms, single-session use produced significant increases in heart rate (+13.7 to +15.1 bpm), peripheral systolic blood pressure (+3.1 to +8.2 mmHg), and PWV (+0.17 to +0.23 m/s), without significant between-arm differences at the peak effect. Serum PAI-1 levels increased significantly across all four arms, indicating a product-independent prothrombotic response. Disposable e-cigarette use also increased heart rate (+11.0 bpm), peripheral systolic blood pressure (+4.5 mmHg), PWV (+0.14 m/s), and augmentation index (+6.4 percentage points). Oscillometric small airway resistance (R5-20) shifted from 0.04 to 0.19 cmH₂O·s/L, and the reactance area increased by 26.3%, both persisting through recovery.

Conclusion: Emerging non-combustible nicotine products acutely impair cardiovascular function, with rooibos-based HTPs producing hemodynamic and pro-thrombotic responses equivalent to those of conventional tobacco products, and disposable e-cigarettes additionally inducing persistent small airway changes. These findings challenge the assumed safety of plant substrates and non-combustible nicotine delivery and support precautionary regulations across emerging product categories.



Smoking in Pregnancy: Policies, Interventions and Maternal–Infant Outcomes

14:00 - 14:15

Qualitative evaluation of the English National Smoke-free Pregnancy Incentives Scheme (NSPIS)

M. Ussher^{1,2}, J. McKell¹, I. Uny¹, L. Brose³¹University of Stirling, United Kingdom²City St George's, University of London, United Kingdom³King's College London, United Kingdom

Background and aims: Offering financial incentives is effective and cost effective for smoking cessation during pregnancy. Consequently, in 2024 the UK government established a National Smoke-free Pregnancy Incentives Scheme (NSPIS). All pregnant persons in England who smoke are offered incentives (i.e., shopping vouchers) to stop smoking and remain smoke-free for a least three months postpartum. We conducted a qualitative evaluation of the NSPIS.

Scheme design: Scheme users were offered a total of £400 of incentives during pregnancy and up to three months postpartum, contingent upon validated self-reported continuous abstinence (exhaled carbon monoxide reading <4ppm). Incentives were offered alongside behavioural support and nicotine replacement therapy through trained advisors.

Qualitative methods: We conducted an in-depth qualitative exploration of the views and experiences of those delivering the scheme and receiving it. This entailed 40 interviews with scheme users (n=20 relapsed during the scheme, n=20 completed), plus focus groups with tobacco dependence advisors (TDAs) delivering the scheme, with tobacco treatment managers overseeing local delivery of the scheme, and with members of the scheme's national steering group. The interviews and focus groups followed theoretically informed topic guides and the transcripts were analysed thematically.

Findings: Scheme users were generally positive and especially valued the support of the TDAs. Scheme features were well received, although some users suggested changes such as the largest incentive being at the end of the scheme and incentives being extended beyond three months post-partum. The NSPIS was highly valued among service managers and TDAs as they felt it helped more pregnant people quit smoking. They acknowledged that the scheme was demanding for users and was sometimes challenging for TDAs to manage but generally approved of the way it was organised. The steering group highlighted challenges such as ensuring consistency of delivery across different providers and long-term government support.

Conclusions: The NSPIS has been generally positively received by both those providing it and those receiving it. The findings highlight some challenges and areas where the scheme could be refined.



Associations between maternal e-cigarette use during pregnancy and infant mortality in the first 6 months of life

X. Wen¹, C. Li¹, J. Chen¹, A. Pezzino¹, A. Fanti¹, B. Garg¹

¹State University of New York at Buffalo, United States

Background: Electronic cigarettes (e-cigarettes) have been increasingly used among pregnant people. However, little is known about the impact of maternal e-cigarette use on infant mortality.

Aims: Electronic cigarettes (e-cigarettes) have been increasingly used among pregnant people. However, little is known about the impact of maternal e-cigarette use on infant mortality.

Methods: We analyzed secondary data from the U.S. Pregnancy Risk Assessment Monitoring System (PRAMS, 2016-2021, N=233,642). Mothers were stratified into 4 groups based on self-reported e-cigarette and cigarette use status during the last 3 months of pregnancy: (exclusive) e-cigarette users, (exclusive) combustible cigarette users, dual-users of e-cigarettes and cigarettes, and non-users. Infant death up to 6 months of age was obtained from questionnaire surveys. We used multivariable logistic regression to examine the associations between maternal e-cigarette/cigarette use and infant mortality, as well as the mediation roles of two adverse birth outcomes, i.e., small-for-gestational-age (SGA) birth and preterm birth.

Results: The majority of mothers were non-users (91.1%) during late pregnancy, followed by cigarette users (7.4%), dual users (0.8%), and e-cigarette users (0.7%). Cigarette users (0.87%; confounder-adjusted odds ratio [aOR]=1.85 [95% confidence interval, 1.39-2.45]; p-value<0.001), but not e-cigarette users (0.54%; 1.38 [0.57-3.34]; p-value=0.482) or dual users (0.40%; 1.02 [0.39-2.68]; p-value=0.962), had a significantly higher infant mortality, compared with non-users (0.42%). The association between maternal cigarette use and infant mortality was partially mediated by SGA (aOR attenuated to 1.76 [95% CI, 1.28-2.41]; p-value<0.001) or preterm birth (aOR attenuated to 1.55 [1.15-2.08]; p-value=0.003).

Conclusion: In this U.S. cohort, exclusive cigarette use during late pregnancy is a risk factor for infant mortality, which is partially explained by smoking-related SGA and preterm birth. More research is needed to replicate our observed relatively minor role of exclusive e-cigarette use or dual use in infant mortality.



Financial incentives for maintaining postpartum smoking abstinence: 3–4-year follow-up of the FIPPS randomized controlled trial

M. Ussher^{1,2}, T. Coleman³, C. Best¹, S. Lewis³, L. Bauld⁴, J. McKell¹, S. Orton³, S. Cooper³

¹University of Stirling, United Kingdom

²City St George's, University of London, United Kingdom

³University of Nottingham, United Kingdom

⁴University of Edinburgh, United Kingdom

Background and aims: We followed up a financial incentives trial aimed at maintaining smoking cessation postpartum, which showed some positive effects at one year, to assess sustained abstinence at 3–4 years postpartum.

Design, setting and participants: Secondary analysis of longer-term outcomes of a pragmatic, multi-centre, three-arm randomized controlled trial, recruiting 462 postpartum women in England, aged ≥ 16 years, having stopped smoking during pregnancy with financial incentives, validated as abstinent at end-of-pregnancy or early postpartum. Interventions: (i) usual care (UC); (ii) UC plus up to £60 of voucher incentives offered to participants and £60 offered to significant-other supporters, over 3-months postpartum, contingent upon validated abstinence ('3-months incentives'); or (iii) UC plus '3-months incentives' plus £180 of vouchers offered to participants over 9 months postpartum (leading to a maximum of £240 of incentives for participants, plus £60 for significant others), contingent upon validation ('12-months incentives'). Participants not abstinent at one-year were included as non-abstainers.

Measurements: Primary outcome: biochemically validated abstinence at 3–4-years postpartum. Considering multiple comparisons, significance was set at $P < 0.017$.

Findings: 63% (289/462) of participants had self-reported smoking status at 3–4 years postpartum; 19% (88/462) reported as abstinent, of whom 64% (56/88) underwent biochemical validation with none misclassified. Primary outcome abstinence was 16.4% (26/159) for 12-months incentives, 12.3% (19/154) for 3-months incentives, and 7.4% (11/149) for UC. Adjusted odds ratios (OR) (95% confidence interval) for 12-months versus UC: OR 2.51 (1.18–5.31), $P = 0.016$, and for 3-months versus UC: 1.81 (0.83–3.98), $P = 0.138$. In a fully adjusted model, the difference between 12-month incentives and UC was no longer significant: OR 2.44 (1.11–5.36), $P = 0.027$, using the Bonferroni correction ($P < 0.017$). Bayes factors indicated that for 12-months versus UC there was good evidence for the alternative hypothesis; for 3-months versus UC, evidence was inconclusive for the null or alternative hypothesis.

Conclusions: There was some evidence that up to £300 of voucher incentives offered over 12 months postpartum are effective for maintaining smoking abstinence at 3–4 years postpartum compared with UC. There was no evidence that up to £120 of incentives over 3-months postpartum are beneficial compared with UC.



The association of maternal smoking during pregnancy with the risk of neonatal intensive care unit admission among full-term infants

K. Korhonen¹, L. Holopainen², M. Gissler³, M. Ekblad²

¹Department of Pediatrics and Adolescent Medicine, Turku University Hospital and Turku University, Finland

²Department of General Practice, University of Turku and Turku University Hospital, Finland

³THL Finnish Institute for Health and Welfare, Department of Data and Analytics, Helsinki, Finland, Finland

BACKGROUND: Maternal smoking during pregnancy (SDP) is linked to adverse neonatal outcomes, but the specific clinical conditions contributing to morbidity among full-term infants are not well characterized.

AIM: To examine whether maternal SDP increases the risk of neonatal intensive care unit (NICU) admission and antibiotic treatment during the first week of life among full-term newborns, and to identify diagnoses more common among exposed infants.

METHODS:

Design: Register-based cohort study using the Finnish Medical Birth Register and Hospital Discharge Register.

Setting: All full-term (≥ 37+0 gestational weeks) singleton births in Finland from 2006 to 2018.

Participants: 795,836 term newborns, representing 95.2% of all singleton births during the study period.

Exposure: Maternal smoking during pregnancy, categorized into three groups: no smoking, quit smoking during the first trimester (early smoking), and continued smoking after the first trimester (continued smoking).

Main outcomes and measures: Primary outcomes were NICU admission and antibiotic treatment during the first week of life. Secondary outcomes included neonatal diagnoses and perinatal mortality. Adjusted odds ratios (aORs) were calculated using logistic regression, adjusted for mode and year of delivery, maternal age, parity, and pre-pregnancy body mass index.

RESULTS: Continued maternal smoking was associated with 43% higher odds of NICU admission and 22% higher odds of antibiotic treatment compared with no exposure. Early smoking exposure was associated with 17% and 20% higher odds, respectively. The risk of bacterial sepsis or congenital pneumonia was increased with both continued smoking (aOR, 1.31 [95% CI, 1.24–1.39]) and early smoking exposure (aOR, 1.21 [95% CI, 1.14–1.30]). Neonatal hypoglycemia was more common with continued smoking (aOR, 1.53 [95% CI, 1.46–1.61]), but not with early exposure. Early smoking was not associated with perinatal mortality, whereas continued smoking increased the risk of stillbirth (aOR, 1.49 [95% CI, 1.18–1.87]), but not early neonatal death.

CONCLUSIONS: Maternal smoking during pregnancy may compromise neonatal health by increasing the risk of infections and metabolic disturbances that require intensive care among full-term infants. These findings underscore the importance of smoking cessation efforts during pregnancy to improve neonatal outcomes.

Assessing the effect of the smokefree generation policy in England on smoking in pregnancy

N. Davies¹, T. Langley¹, R. Murray¹, J. Morling¹, M. Bains¹, M. Jones¹

¹University of Nottingham, United Kingdom

Background

A smokefree generation (SFG) policy prohibits tobacco sales to individuals born after a specified date, aiming to prevent smoking uptake in future generations. Simulation studies project substantial long-term health benefits, but most take decades to accrue. Benefits to women in pregnancy may be an exception: smoking during pregnancy causes stillbirth, premature birth and other adverse outcomes. In 2027, the United Kingdom is introducing an SFG policy banning tobacco sales to those born in or after 2009. However, the impact of SFG on smoking in pregnancy has not been modelled. We estimated the cost-effectiveness of an SFG policy in England for reducing smoking at time of delivery (SATOD) and adverse maternal and offspring outcomes.

Methods

Decision analytic modelling from a health service and personal social services perspective was conducted using the Economics of Smoking in Pregnancy (ESIP) model. Three scenarios (central, pessimistic, optimistic) were simulated deterministically and through probabilistic sensitivity analyses (10,000 iterations). The study population was a cohort of 19,843 women born in 2014 giving birth at a mean maternal age of 28, representing the women affected by the first 15 years of the policy. Costs were taken from the UK government's impact assessment. The analyses take a healthcare perspective and costs and benefits are discounted at 3.5% per annum.

Results

In the central scenario, SFG was projected to save £338 and gain 0.152 QALYs per mother and child combined. The policy was estimated to avert 18 stillbirths, 58 premature births and 260 low-birthweight infants in 2042, and reduce child asthma prevalence by 0.8 percentage points and child mortality by 0.7 percentage points at age 15. Across all scenarios, SFG dominated the comparator, with projections of both cost savings to health and personal social services and QALY gains. Dominance persisted in probabilistic sensitivity analyses, with a 100% probability of cost-effectiveness across all scenarios, even when assuming 15-fold increased costs.

Conclusions

This first modelling of SFG on smoking in pregnancy suggests it could prevent adverse birth outcomes, and deliver health gains for mothers and children, while reducing healthcare costs.

Current issues in the design and implementation of smoking cessation clinical trials

14:00 - 14:15

The Challenge of Addressing Real-World Tobacco, Nicotine, and Cannabis Use Patterns in Smoking Cessation Trials

M. Piper¹¹University of Wisconsin, Madison, United States

Background: Use of combusted tobacco cigarettes remains one of the leading preventable causes of death and disease in high-income countries, and yet only about 1 in 4 people who smoke are able to achieve long-term abstinence using evidence-based effective smoking cessation interventions. One roadblock to smoking cessation may be that there has been a substantial increase in the use of multiple tobacco and nicotine products (e.g., dual use of tobacco cigarettes and nicotine e-cigarettes) as well as the co-use of tobacco and cannabis. This evolution of poly-tobacco/nicotine product use and cannabis co-use has created a more complex reality that tobacco treatment researchers need to assess accurately to ensure the validity of the conclusions drawn from treatment trials.

Aims: The goal of this presentation is to discuss critical methodological issues with addressing the use of multiple nicotine and tobacco product use as well as cannabis and tobacco co-use among adults who participate in smoking cessation trials.

Methods: These issues will be addressed based on the extant literature as well as a review of the 2025 American Thoracic Society research statement on tobacco and cannabis co-use that was co-chaired by Dr. Piper.

Results: One challenge is determining who should be included in smoking cessation trials (i.e., should people who use multiple tobacco/nicotine products or co-use cannabis be included?). Another challenge is the accurate assessment of multiple tobacco/nicotine products and cannabis use with respect to both quantity, frequency, type of cannabis, and co-use pattern (e.g., sequential, simultaneous). A third challenge is how “abstinence” should be operationalized. Finally, researchers need to think about how they will incorporate poly-nicotine/tobacco use and cannabis co-use into outcome analyses.

Conclusion: There are a variety of key methodological issues that smoking cessation treatment researchers need to address to ensure that their findings appropriately characterize the evolving use patterns of adults who smoke tobacco.



EARLY TREATMENT RESPONSE IN BLACK ADULTS RECEIVING PHARMACOTHERAPY FOR SMOKING CESSATION: IMPLICATIONS FOR CLINICAL TRIAL DESIGN

E. Leavens¹, M. Mayo¹, A. Brown¹, L. Cox¹, E. Ellerbeck¹, J. Ahluwalia², N. Nollen¹

¹University of Kansas Medical Center, United States

²Brown University School of Public Health, United States

Background: Smokers who achieve abstinence in the first few weeks of treatment have significantly greater odds of maintaining abstinence. Early treatment response (ETR) may be an important, clinically relevant target to be used in clinical trials; however, there is limited information on associated factors.

Methods: Secondary analysis of an open-label randomized trial among Black adults who smoke daily and were interested in quitting smoking. Participants were randomized to standard treatment (7 sessions of counseling + nicotine patch) or adaptive treatment (included up to two pharmacotherapy adaptations [Varenicline; Bupropion + patch]). Adaptations occurred at weeks 2 and 6 for individuals not responsive to pharmacotherapy, based on biochemically confirmed smoking status with CO $\leq$ 5 ppm indicating treatment response. Regardless of treatment, participants received 18 weeks of pharmacotherapy with long-term follow-up at week 26 (biochemically confirmed abstinence with anatabine and anabasine $\leq$ 2ng/mL). Baseline assessment included demographics, socioeconomic status, smoking history, psychosocial, and biological characteristics. Logistic regression, including treatment, assessed the association between ETR (CO-verified abstinence at week 2) and abstinence at week 26. Multiple logistic regression using best subset variable selection determined predictors of ETR.

Results: ETR was predictive of abstinence at week 26 (OR=3.6, 95, $p<.001$). In best subset multivariable analyses, three factors were retained in the final model predicting ETR: smoking fewer CPD, non-use of other tobacco products, and lower baseline cotinine ($p<.01$).

Conclusions: Participants who stopped smoking using nicotine patch therapy in the first 2 weeks of treatment had a 3.6 greater odds of achieving abstinence at week 26 compared to participants who continued smoking in early treatment. Early responders smoked fewer cigarettes per day, reported non-use of other tobacco products, and had lower cotinine at baseline. Given the association with long-term abstinence Given its association with long-term cessation, ETR should be considered in the context of clinical trial design.



RECONSIDERING THE RATIONALE FOR FOLLOWING CONTINUING SMOKERS IN CLINICAL TRIALS: ANALYSIS OF RELAPSE AND QUITTING AFTER PHARMACOTHERAPY

L.S. Cox¹, L. Yoksh¹, M.S. Mayo¹, T. Snow¹, N.L. Nollen¹

¹University of Kansas School of Medicine, United States

BACKGROUND: Standard cessation trials evaluate smoking behavior from baseline to end of treatment (EOT) to show initial treatment response, and follow-up after discontinuing treatment to assess long-term abstinence or relapse. Assessment during the follow-up period includes all participants, independent of EOT quit status, yet following continuing smokers without providing additional quitting support raises clinical and ethical questions.

AIMS: To consider utility of following all participants post-treatment, this study examined abstinence and smoking behavior change between EOT and Month 6 follow-up for participants who did and did not achieve abstinence during treatment.

METHODS: This study examined data from monotherapy treatment arms (12 weeks varenicline or 18 weeks nicotine patch) across three trials of African Americans, including participants who completed both EOT and Month 6 follow-up. Fisher's Exact tests compared outcomes across studies. Logistic regression models examined age, sex, and cigarettes per day (CPD) in relation to quitting and relapse.

RESULTS: Among 568 participants (54% female, mean 51 years, 12.7 CPD), 446 (78.52%) reported smoking at EOT. There was no significant difference across studies in EOT and follow-up quit status, return to smoking, or new quitting. Of 122 participants biochemically-confirmed abstinent at EOT, 39 (31.97%) resumed smoking by Month 6. Of 446 participants who reported smoking at EOT, 18 (4.04%) were confirmed abstinent at Month 6. Age, sex, and CPD did not impact odds of relapse; higher CPD reduced odds of quitting post-treatment ($p < 0.05$).

DISCUSSION: Almost a third of participants who were abstinent at EOT resumed smoking prior to Month 6, supporting the rationale for monitoring long-term behavior change among newly abstinent individuals to evaluate sustained quitting and relapse risk. In contrast, almost all participants who did not achieve abstinence at EOT continued smoking during follow-up, questioning the scientific justification of observation-only follow-up for continuing smokers.

CONCLUSION: Ethical research design and clinical utility of findings may be strengthened by a new standard approach in which a) participants abstinent at EOT are followed post-treatment to examine long-term abstinence and relapse, and b) those unable to achieve abstinence are provided additional treatment or released from the study and connected to other treatment resources.



Including pharmacogenomics in clinical trials may improve use of resources and outcomes.

R. Tyndale¹

¹Univ of Toronto and CAMH, Canada

Varenicline is an effective pharmacotherapy for smoking cessation however genetic variants may influence risk for side effects as well as cessation. Side effects, including nausea, can reduce medication adherence and subsequently smoking cessation. We previously identified genetic variants associated with nausea in those of European ancestry. Here we extend these studies to describe genetic associations with nausea (at two time points) and abstinence on varenicline in those of African ancestry.

Genome-wide association analyses were conducted in the PNAT-2 clinical trial (N=119) [NCT01314001] and separately in a combined dataset (using the same array) of KIS-IV [NCT02360631], Quit2Live [NCT01836276], and Extended Varenicline on Quit trials [NCT03262662] (N=389). Cases were individuals experiencing nausea measured one, or four, weeks post varenicline initiation, and separately those who were not abstinent. Additive genetic models on imputed genotypes (MAF > 1%, Info-score > 0.6) were used. In logistic regression models we considered age, sex and top two genetic PCs to account for population substructure. Summary statistics from studies were meta-analysed (N=508) using fixed effect inverse variance method. For nausea and abstinence top single nucleotide hits on multiple chromosomes were interrogated for nearby genes and their previous associations; consistency in effect across the 4 trials was examined. Rare variants with larger effect sizes point to possible therapeutic targets while common variant(s), or genetic risk scores, could be used to optimize clinical trials. Some examples of Pharmacogenomically-informed clinical trial designs will be described.

E-Cigarettes

11:15 - 12:00

Prevalence of e-cigarette use among women of reproductive age.

C.M. Posse¹, M.C. Míguez¹¹University of Santiago de Compostela, Spain

Background: In recent years, the use of e-cigarettes has increased, although certain segments of the population, such as women of reproductive age, remain understudied. The use of these devices by women has been linked to adverse effects on both reproductive and perinatal health. It has been found that women who use these devices have greater difficulty conceiving, and their use during pregnancy increases the risk of miscarriage, preterm birth, low birth weight and long-term adverse outcomes in infants.

Aims: The aim of this review is to analyse the prevalence of e-cigarette use among women of reproductive age, and to examine whether prevalence differs between women and men.

Methods: A literature search was conducted in PsycINFO, PubMed, Web of Science (WOS) and Scopus to identify articles published between January 2015 and January 2025 that examined the prevalence of e-cigarette use among women of reproductive age (15–49 years). A total of 14 studies meeting the inclusion criteria were selected.

Results: Four studies were found in Europe, five in the Americas, three in Asia and two in Oceania, revealing significant variation in prevalence between countries, with prevalence rates ranging from 0.1% to 28.8%. The continent with the highest prevalence was the Americas (1.5%–28.8%), with the United States being the country with the highest rates of use. The continent with the lowest prevalence was Oceania (0.2%–4.1%), with Australia and New Zealand having the lowest rates of use. Furthermore, it was found that the prevalence of e-cigarette use in this age group is lower than that among men (5.8% vs 8.9%).

Conclusion: Despite the risks associated with e-cigarette use for fertility and obstetric outcomes, women of reproductive age continue to use these devices. It is therefore necessary to screen for e-cigarette use both at preconception appointments and throughout pregnancy, and to develop effective prevention and intervention strategies to reduce their use in this population.



Attitudes and Perceptions Toward Tobacco and E-Cigarettes: What Differences Between Men and Women?

A. Guillemin¹, J. Foucaud²

¹French National Cancer Institute, France

²Institut national du cancer, France

In France, tobacco remains the leading preventable risk factor for cancer and electronic cigarettes (e-cig) continue to raise concerns regarding both their effectiveness as a smoking cessation aid and their potential long-term effects. In a context of increasing denormalization of tobacco and nicotine products, examining perceptions and attitudes toward these products is essential. While several studies have investigated either tobacco or e-cig, few have examined both simultaneously, and even fewer have explored differences between men and women. That is the objective of this study.

Data were obtained from the 2021 French Cancer Barometer, a telephone survey conducted on a representative sample of the French population ($n = 4,938$; 2,241 men and 2,697 women). For tobacco, analyses focused on perceived cancer risk and, among smokers, fear of developing tobacco-related cancer, the likelihood of discussing smoking with a healthcare professional, and the perceived harmfulness threshold according to the number of cigarettes smoked per day. For e-cig, perceived harmfulness and perceived cancer risk were examined. Descriptive analyses and logistic regression models were performed.

Women were less likely than men to consider tobacco use as a cause of cancer (OR = 0.80; 95% CI: 0.70–0.90; 79.2%). Among smokers, women reported lower levels of fear of developing tobacco-related cancer than men (32.4% vs. 38.6%). However, women were more likely than men to discuss smoking with a healthcare professional (18.7% vs. 11.4%). Perceptions of the harmfulness threshold were similar between men and women (9.09 vs. 9.38 cigarettes/day). Regarding e-cig, women were less likely to have ever used them (OR = 0.82; 95% CI: 0.68–0.98) but more likely to perceive them as harmful to health (OR = 1.54; 95% CI: 1.09–2.16) and to consider nicotine in e-cigarettes carcinogenic (OR = 1.73; 95% CI: 1.32–2.27).

These findings provide new insights: Women appear more likely to underestimate the carcinogenic risk associated with tobacco use, while overestimating the harmfulness of e-cigarettes. And those who smoke are less likely to express their fear of developing cancer caused by smoking. These findings highlight the need for tailored prevention strategies, particularly in a context where women are increasingly targeted by the tobacco industry.

Comparing Mental Health and Sexual Function in Dual Users of E-Cigarettes and Conventional Cigarettes in Malaysia

A. Yee¹, D. Chellaiah², A.S. Amer Nordin², F. Hairi², A.S. Ahmad Adlan²

¹Monash University Malaysia, Malaysia

²UNIVERSITY MALAYA, Malaysia

Dual use of electronic cigarettes and conventional cigarettes is an increasing public health issue. Both nicotine delivery methods are linked to physiological and psychological harm, yet little is known about their combined impact on mental health and sexual function, especially in Southeast Asian settings. This study compared mental health status and sexual function between dual users of e-cigarettes and conventional cigarettes and exclusive cigarette smokers in Malaysia. A cross-sectional study was carried out among 132 adult nicotine users recruited through convenience sampling. Participants completed validated measures of nicotine dependence (FTND, PSECDI), psychological distress (DASS-21), and sexual functioning (SDI-2, IIEF, FSFI). Data were analyzed using t-tests, chi-square tests, and multivariate models adjusting for education level and dependence scores, with findings reported as effect sizes and 95% confidence intervals. Dual users showed greater overall sexual desire than exclusive cigarette smokers (mean difference = 10.89, 95% CI [3.6, 18.1], $p = .004$). No significant group differences were found for depression, anxiety, or stress. Among male participants, a small yet significant difference was identified in the sexual desire domain of the IIEF ($p = .029$). Dual use was associated with higher sexual desire but similar psychological outcomes when compared with exclusive cigarette smoking. The findings point to a multifaceted relationship involving nicotine dependence, neurobiological pathways, and sociocultural factors in shaping sexual and mental health. Longitudinal studies are needed to clarify causal links and support culturally appropriate smoking cessation interventions.

Flavor composition of e-liquids before and after vaping - Bypassing the Dutch flavor ban

W. Klerx¹, I. Bakker - 't Hart¹, R. Talhout¹, M. van Alphen¹, K. van Schaik^{1,2}

¹RIVM, Netherlands

²Avans Hogeschool, Netherlands

Background:

E-cigarettes are popular among young people, particularly due to their appealing flavors. To reduce their attractiveness, a ban on non-tobacco flavors in e-liquids was implemented in The Netherlands in 2024. Compliance with the ban is tested in e-liquids. This study assessed changes in the flavor composition during vaping and two potential ways to circumvent the ban:

- 1) reaction of non-flavor additives such as ethanol and organic acids (often added to commercial e-liquids) to flavorings upon vaping
- 2) addition of flavored liquids marketed as aroma diffuser liquids to e-liquids.

Methods:

The flavor composition of 24 commercial e-liquids sold prior to the Dutch flavor ban and their corresponding aerosol was determined using gas-chromatography-mass spectrometry. Aerosol was created by machinal vaping of e-liquids, condensed and subsequently extracted. Identified flavor components were verified with authentic standards and quantities were estimated. The aerosols of 30 experimental e-liquids containing varying amounts of organic acids, ethanol and nicotine were analyzed too. Additionally, the flavor composition of 8 diffuser liquids was determined, after being added to a base liquid and vaporized.

Results:

Analysis of e-liquids revealed that different flavoring components were used to create the same marketed flavor. The composition of most e-liquids changed during vaping: flavoring concentrations were increased or - more often- decreased, sometimes below detection limit. New components were also formed during vaping when certain organic acids were added. For example, adding citric acid resulted in the formation of 1,2,3-Propanetriol, 1-acetate (no flavoring). Products marketed as diffuser liquids contained some of the same flavorings commonly found in flavored e-liquids, for example ethyl butyrate and menthol. Diffuser liquids are easily dissolved in a propylene glycol/glycerol mix and can be vaped.

Conclusion:

Depending on the e-liquid composition, the concentration of flavorings may change upon vaping, although formation of new flavorings is not confirmed. Flavored liquids marketed as diffuser liquids can be used to circumvent the e-cigarette flavor ban. Further research is needed on whether this is a common practice among e-cigarette users. This information can help future regulation of flavor components in e-liquids and on alternative flavored liquids that may hinder the regulatory aim of flavor bans.



Engaging Patients with Lived Experience in a Randomized Controlled Trial Exploring Cytisine and E-Cigarettes for Smoking Harm-Reduction

J. Zhang^{1,2}, A. Rahmadian¹, R. Hatzitolios¹, M. Bakshi¹, P. Selby^{1,3}, L. Zawertailo^{1,2}

¹INTREPID Lab, Addictions Program, Centre for Addiction and Mental Health, Canada

²Department of Pharmacology and Toxicology, University of Toronto, Canada

³Department of Family and Community Medicine, University of Toronto, Canada

Background:

Most individuals receiving conventional pharmacotherapies fail to quit or relapse within six months, representing a treatment-resistant population. For these individuals, harm reduction strategies may offer practical approaches to decrease smoking, rather than immediate cessation. Cytisine is a natural health product similar to varenicline, and e-cigarettes, which provide a non-combustible nicotine alternative while mimicking the behavioural aspects of smoking, have demonstrated efficacy and tolerability as harm reduction tools. However, successful implementation of these approaches depends not only on their clinical effectiveness, but also on patient perspectives and perceived barriers. Engaging individuals with lived experience is critical to ensuring harm reduction interventions are relevant, feasible, and address real-world needs.

Aim:

This study aims to evaluate how a patient advisory group can inform the design and implementation of a clinical trial investigating cytisine and e-cigarettes for tobacco harm reduction.

Methods:

A group of eight individuals with lived experience/expertise in smoking, vaping and/or smoking cessation was formed. Bi-weekly meetings, led by patient engagement facilitators and research staff are being conducted prior to study implementation and throughout the trial period. Semi-structured prompts were used to focus the discussion on: assessing intervention acceptability; feasibility; and patient experience. These discussions informed and contributed to refinement and co-design of study procedures and patient-facing material.

Results:

The group of patients with lived experience were recruited from an Ontario-wide smoking cessation program who have attempted smoking cessation. This includes individuals recruited from equity-deserving populations disproportionately affected by tobacco use, such as Indigenous or low-income populations. Analysis of discussions identified key themes including 1) motivators and barriers to quit smoking, 2) perspectives of e-cigarettes as cessation tools, and 3) feasibility of study procedures. Overall, perceived harm of e-cigarettes is misinformed, and understanding of harm reduction is limited, presenting potential barriers to treatment acceptance.

Conclusion:

Engaging individuals with lived experience provides valuable perspectives about acceptability of harm reduction approaches, especially for emerging strategies such as cytisine and e-cigarettes. These findings will guide patient interactions and study changes through identifying patient-relevant priorities and concerns, highlighting the importance of integrating active collaboration with patients to enhance participant experience, retention, and health outcomes.



Exploring the implementation of the Swap to Stop initiative to advance smoking cessation efforts in England: A qualitative case study

G. King¹, M.R.J. Aquino¹

¹Newcastle University, United Kingdom

Background

E-cigarettes (nicotine vapes) are an effective harm-reduction tool for smoking cessation, particularly when combined with behavioural support. In 2023, the UK Government launched Swap to Stop, providing free vape starter kits to adult smokers as part of its Smokefree 2030 policy. Evidence on implementation, particularly in inpatient settings and from provider perspectives, is limited. In North East England, smoking prevalence has declined, but remains concentrated in the most deprived communities, leading to disproportionate harm and widening health inequalities. Standard measures such as four-week quit rates may not fully capture intervention impact, including impacts on health and care equity. Understanding the broader impact of treating tobacco dependence services including the provision of e-cigarettes, particularly for underserved groups, is critical.

Aim

To explore implementation of the Swap to Stop initiative across two secondary care hospitals—one acute (general medicine and surgery) and one mental health inpatient. Objectives are to identify barriers and facilitators, including appropriate measures of success, and to describe impact from providers' perspectives.

Methods

This formative process evaluation uses a qualitative case study design. Two hospitals in North East England were purposively selected to capture variation in context and delivery. Data are being collected through semi-structured interviews with staff involved in planning and delivery, supplemented by document analysis (e.g. implementation plans, policies). Data are being analysed using framework analysis, informed by Normalization Process Theory.

Results

Data collection and analysis are underway. Early findings suggest that implementation of Swap to Stop is shaped by multi-level factors, including organisational context, resources, staff engagement, and perceptions of vaping. Differences between the two settings indicate the need for context-specific adaptation, including developing staff confidence and capability to implement Swap to Stop and integration with existing community tobacco dependency pathways. Other measures of success beyond four-week quit rates could include patient engagement and harm reduction.

Conclusions

Implementing a world-first initiative to provide people who are tobacco dependent vape starter kits to support smoking cessation is feasible within acute hospitals and mental health inpatient settings. Successful implementation requires context-specific adaptation, workforce capability, and formal integration within existing care pathways within community and primary care.

Harms

11:15 - 12:00

Mortality attributable to second-hand tobacco smoke exposure in Israel

Y. Amir¹, J. Rey-Brandariz^{1,2}, M. Pérez-Ríos^{1,2}¹University of Santiago de Compostela, Spain²Instituto de Investigación Sanitaria de Santiago de Compostela, Spain

Background: Second-hand smoke (SHS) exposure causes approximately 1.3 million deaths annually worldwide. Previous SHS-Attributable Mortality (SHS-AM) estimates in Israel (deaths – 2001: 1,385; 2014: 793) did not rely on exposure prevalence derived from national data sources, but instead applied estimates from other populations, adjusted for differences in smoking prevalence. This approach may limit their interpretability and relevance for informing national policies.

Aims: To estimate SHS-AM in Israel using national exposure data in the population aged 35 years and older in 2017.

Methods: A prevalence-dependent method based on population-attributable fraction (PAF) was applied, following the STREAMS-P framework recommendations. SHS exposure prevalence and smoking status were obtained from the nationally representative KAP-17 survey (Israeli Ministry of Health; n=6,207; response rate 69.2%). Mortality data were extracted from the Central Bureau of Statistics vital registration system (100% complete). Relative risks for non-smokers exposed to SHS were drawn from a recent meta-analysis; risks for current and former smokers were derived from five large US cohorts. The primary analysis included four causes with strong evidence: ischaemic heart disease (IHD), lung cancer, stroke, and diabetes mellitus. SHS-AM was stratified by sex, age group, smoking status, and cause of death. Two sensitivity analyses were conducted: the first included four additional causes with weaker evidence of association, and the second applied alternative RR sources.

Results: SHS-AM was estimated at 813 deaths in 2017, representing 1.8% of all-cause mortality and 8.1% of mortality from the four primary causes. The SHS-AM rate was 21.4 per 100,000 population. Men accounted for 68.0% of deaths; 72.9% occurred in non-smokers. IHD was the leading cause (317 deaths, 39.0%), followed by lung cancer (259 deaths, 31.9%), diabetes mellitus (128 deaths, 15.7%), and stroke (109 deaths, 13.4%). Sensitivity analyses yielded estimates of 779 (alternative RR sources) to 1,202 deaths (broader cause inclusion).

Conclusions: This assessment confirms that SHS exposure causes more than two preventable deaths per day, predominantly among non-smokers. Policymakers should prioritise strengthened enforcement, particularly in communities with disproportionately high exposure, and establish regular SHS-AM monitoring.



Same Cigarette, Different Story: Naturalness Descriptors Reduce Harm Expectancies and Alter Subjective Effects in a Human Lab Study

J. Pearson¹, O. Erinoso¹, A. Pheneger¹, Y. Jun¹, Y. Son¹, M. Mercincavage²

¹University of Nevada, Reno School of Public Health, United States

²Rutgers Robert Wood Johnson Medical School, United States

Background: Smokers believe “organic,” “natural,” and similar descriptors signal reduced harm. What is unclear is whether these descriptors “get under the skin” and affect subjective effects.

Aims: Guided by response expectancy theory, this study examined whether descriptors communicating naturalness affect harm expectancies and subjective effects.

Methods: In a within-person human laboratory study, 182 adult daily cigarette smokers (mean age = 43.9; 36% women; 78% non-Hispanic White; 16% NAS smokers; mean 12.2 cigarettes/day) were told they were testing three new cigarette varieties for a tobacco company. In reality, participants smoked the same unbranded cigarette three times; only the advertising conditions varied (conventional, “natural,” “organic”). Participants also smoked their own brand. Pre-smoking, participants rated health expectancies on an 8-item composite ($\alpha = .92$; 1–5, higher = more agreement with reduced harm expectancy). Post-smoking subjective effects included hedonic reward ($\alpha = .84$), strength/intensity ($\alpha = .80$), harshness ($\alpha = .72$), and chemical aftertaste on 0–100 VAS scales. Linear mixed-effects models tested condition effects and moderation by Natural American Spirit (NAS) preference, adjusting for baseline “organic” harm beliefs. Bonferroni correction was applied to pairwise comparisons.

Results: Expectancies. The condition $\times$ NAS interaction was significant ($LR \chi^2(3) = 38.46, p < .001$). Among non-NAS smokers, “organic” and “natural” generated greater reduced harm expectancies than both conventional and own brand (all $p < .001$). Subjective effects. Own brand was rated stronger than all experimental conditions ($M = 70.1$ vs. 59.7–64.1; all $p \leq .004$). “Organic” was rated less harsh than own brand and conventional (p 's $\leq .011$). Among NAS smokers, “natural” produced higher hedonic reward than conventional ($M = 69.1$ vs. 56.1; $p = .007$). The condition $\times$ NAS interaction for chemical aftertaste was significant ($p = .003$) but no individual contrasts survived correction, likely reflecting limited power ($n = 29$ NAS smokers).

Conclusion: “Natural” and “organic” descriptors inflated reduced harm expectancies among non-NAS smokers and affected post-smoking subjective effects. “Organic” cigarettes were perceived as less harsh, providing evidence that may reinforce label-driven risk misperceptions. These findings suggest naturalness descriptors constitute misleading health communications warranting regulatory action.



Health information preferences for cannabis, nicotine, and co-use: A qualitative study of UK young adults with anxiety/depression symptoms

M. Nottage¹, L. Brose¹, D. Robson¹, K. East², H. Walsh¹, W. Lawn¹

¹King's College London, United Kingdom

²Brighton and Sussex Medical School, United Kingdom

Background:

Cannabis and nicotine are often used together ('co-use') and often smoked. Prevalence is high among young adults who experience anxiety/depression. Health education can support prevention and harm reduction.

Aims:

This study explores the preferences for content, tone, format, and delivery of health education among young adults who co-use cannabis and nicotine and experience symptoms of anxiety/depression, broadly framed by the COM-B model.

Methods:

Participants were recruited via online advertisements, mailing lists, and university channels. Eligibility required UK residency, ages 18-25, recent nicotine and cannabis use, and symptoms of anxiety (GAD-2) and/or depression (PHQ-2). Data were collected August 2025 to March 2026 through semi-structured online interviews (n=16). Interviews followed a PPIE-informed topic guide and lasted 37-90 minutes. Transcripts were pseudonymised, coded on MAXQDA, and analysed using Reflexive Thematic Analysis and Iterative Categorisation. This analysis focuses on a subset of data from the full interviews.

Results:

Participants (ages 18–24; 9 female, 5 male, 2 non-binary; all in education or employment). Most reported daily or near-daily cannabis (n=12) and nicotine (n=11) use, commonly through co-administered joints (n=8), pure joints (n=7), cigarettes (n=9), and vapes (n=8). Participants recalled extensive exposure to tobacco-related health information but described unmet needs regarding cannabis, co-use, and nicotine vaping. Most participants emphasised frustration with oversimplified or moralistic messaging, particularly about cannabis. They preferred balanced discussions of risks and perceived benefits (e.g., self-medication), covering both mental and physical health effects, and prioritising short-term effects which they feel most concerned with. Many expressed that a non-judgmental and impartial tone would make them more likely to engage with the information. Healthcare providers, the NHS, and non-profit organisations were frequently cited as the most trusted information sources, with participants highlighting the need for accessible and engaging formats such as short videos.

Conclusion:

Young adults with anxiety/depression symptoms expressed a strong preference for nuanced, accessible, and engaging health information on cannabis, nicotine, and co-use to support informed decision-making. Findings can guide the development of tailored health communication and targeted harm reduction interventions for this population.

Second-hand Smoke Exposure and Hypertension: A Systematic Review and Meta-Analysis

J. Heshmati¹, A. Rashwan¹, E. Quirouette¹, S. Mahmoodianfard¹, N. Fatah¹, A. Sediqi¹, H. Mir¹

¹University of Ottawa Heart Institute, Canada

Background: Secondhand smoke (SHS) exposure is a well-established cardiovascular risk factor; however, evidence regarding its association with hypertension remains inconsistent across observational studies. Clarifying this relationship is important for informing public health strategies aimed at reducing cardiovascular risk associated with SHS exposure.

Aims: This systematic review and meta-analysis aimed to evaluate the association between SHS exposure and the risk of hypertension across observational studies.

Methods: A comprehensive literature search was conducted in PubMed, EMBASE, Scopus, and Web of Science from inception to July 2025. Observational studies reporting associations between SHS exposure and hypertension were eligible for inclusion. Effect estimates were pooled using a random-effects model and presented as odds ratios (ORs) with 95% confidence intervals (CIs). Subgroup analyses were conducted according to population type, SHS exposure assessment, and hypertension definition. Certainty of evidence was evaluated using the GRADE approach.

Results: A total of 29 observational studies comprising 7,715,604 participants were included. SHS exposure was associated with significantly increased odds of hypertension (OR = 1.21, 95% CI: 1.16–1.27), although substantial heterogeneity was observed ($I^2 = 97.2\%$) and certainty of evidence was very low. Significant associations were identified among children/adolescents and adults, but not among pregnant women. Associations remained significant in studies using frequency/intensity-based and biomarker-based exposure assessments and across most hypertension definitions except self-reported diagnosis. Sensitivity analyses demonstrated robustness of the pooled findings.

Conclusion: SHS exposure appears to be associated with a modest but statistically significant increase in hypertension risk. However, findings should be interpreted cautiously due to substantial heterogeneity and potential publication bias. Further well-designed prospective studies are needed to better clarify this relationship. These findings support strengthening smoke-free policies and reducing SHS exposure, particularly among vulnerable populations, as part of broader hypertension prevention strategies.

Associations Between E-cigarettes, Cardiorespiratory Fitness, and Physical Activity: A Systematic Review and Meta-Analysis

J. Heshmati¹, H. Thode¹, S. Visintini¹, M. Sheraly¹, E. Raizman¹, A. Pipe¹, K. Mullen¹, J. Reed¹, H. Mir¹

¹University of Ottawa Heart Institute, Canada

Background: Use of electronic nicotine-delivery systems (ENDS), including e-cigarettes, is increasing globally, particularly among adolescents and young adults. However, the long-term effects of e-cigarette use on cardiorespiratory fitness (CRF) and physical activity remain poorly understood compared with traditional combustible tobacco products.

Aims: To systematically review and synthesize evidence examining the association between e-cigarette use, CRF, and physical activity participation.

Methods: A comprehensive literature search was conducted in Medline, Embase, Cochrane, and Scopus from inception to February 2026. Studies reporting CRF outcomes (e.g., VO₂ max, six-minute walk distance [6MWD]) or physical activity measures (e.g., moderate-to-vigorous physical activity [MVPA], sport participation) among recent e-cigarette users compared with non-users were included. Random-effects meta-analyses were conducted where appropriate, while remaining studies were narratively synthesized. Risk of bias was assessed using the Newcastle-Ottawa Scale, and certainty of evidence was evaluated using the GRADE framework.

Results: Thirty-one observational studies were included. Seven studies exclusively evaluated CRF (n=3,799), two reported both CRF and physical activity outcomes (n=162), and 22 focused exclusively on physical activity (n=1,785,878). Meta-analyses demonstrated no significant differences in VO₂ max or 6MWD between e-cigarette users and non-users. A pooled analysis of five studies among youth (<18 years) showed that recent e-cigarette use was associated with higher odds of engaging in moderate-to-vigorous physical activity (OR=1.25, 95% CI: 1.07–1.46; I²=92.0%; n=113,026; very low certainty). However, no significant associations were observed for overall physical activity or sport participation. Risk of bias varied across studies, and certainty of evidence was rated very low for all outcomes.

Conclusion: Current evidence does not demonstrate a consistent association between e-cigarette use and cardiorespiratory fitness or physical activity participation. These findings should be interpreted cautiously due to substantial heterogeneity and very low certainty of evidence. Further high-quality longitudinal and mechanistic studies are needed to clarify the long-term cardiopulmonary and behavioural impacts of e-cigarette use.



Disposable E-Cigarettes: The Effect of Flavors on Carbonyl Emissions

A. Turcios¹

¹German Federal Institute for Risk Assessment, Germany

Carbonyl compounds are among the harmful chemicals frequently detected in e-cigarette aerosols. These compounds are primarily produced by the thermal decomposition of e-liquid components during the vaporization process. The concentration of these compounds can vary widely and depends on various factors, such as power settings and the composition of the e-liquid. This variability poses potentially significant health risks to users.

As part of the study, a vaping machine was used to simulate the inhalation of various e-cigarette products under controlled conditions. The machine generated 55 mL puffs over three seconds every 30 seconds to replicate typical usage conditions. The test series comprised 5 cycles, each consisting of 50 puffs. The study examined popular disposable e-cigarettes, particularly those favored by adolescents who prefer flavored, sweet e-liquids. The aldehyde concentrations in the emissions depend on the composition of the e-liquids. To investigate this relationship, various e-cigarette models with different flavor profiles were selected, including cotton candy, strawberry, strawberry-kiwi, watermelon, tropical fruits with a cooling effect, grape, and tobacco. The aerosols were collected using LpNDPH Rezorian® cartridges, eluted in acetonitrile, and analyzed by HPLC-DAD.

The results show significant variability in formaldehyde emissions across flavors. The highest concentrations were found in the device with the cotton candy flavor, while the tropical fruit blend with a cooling effect had the lowest levels. A similar pattern emerged for acetaldehyde concentrations, with the cotton candy flavor again showing the highest average levels. The highest acetone concentrations were observed in the strawberry flavor with a cooling effect and in the strawberry-kiwi blend. The study highlights the need to raise consumer awareness to mitigate risks, calls for further research to improve product safety, and advocates for the development of standardized analytical methods for emissions as part of regulatory requirements.



Snus Use and Cardiometabolic Health Markers Among Older Adults: A Population-Based Longitudinal Study in Sweden

Y. Wang¹, M.S. Näsholm¹

¹Karolinska Institutet, Sweden

Background: The rising prevalence of snus and nicotine pouches necessitates a clearer understanding of their long-term health effects. However, longitudinal evidence regarding their association with cardiometabolic health in older adults remains limited.

Aims: To increase the understanding of how snus use relates to long-term health by elucidating the association between snus use and cardiometabolic health markers over time in an aging cohort of older adults.

Methods: Data were derived from the Swedish National Study on Aging and Care in Kungsholmen (SNAC-K), using longitudinal data covering six waves from the 2001-2004 baseline (Wave 1) through the 2016-2019 follow-up (Wave 6). The study included community-dwelling and institutionalized older adults aged ≥ 60 years in Stockholm, Sweden, without prevalent cardiovascular disease or diabetes at baseline ($n=2,182$). Linear mixed models were used to examine the associations of current snus use status with body mass index (BMI), glycated hemoglobin (HbA1c), total serum cholesterol, and low-density lipoprotein (LDL) cholesterol at baseline and their rate of change over follow-up (range: 0-17 years; mean: 2.9 repeated measures). For current snus users with available data on snus amount ($n=73$), linear regression was used to assess the cross-sectional association between snus amount and these markers. All outcomes were standardized using baseline mean and standard deviation (SD) to ensure comparability.

Results: No significant differences were observed in cardiometabolic health markers by current snus use status at baseline and their rate of change over the follow-up period. Snus amount was cross-sectionally and positively associated with HbA1c ($\beta=0.356$ SD; 95% CI: 0.113, 0.599) independent of sociodemographic factors, smoking status, lifestyle factors, and BMI. This association was attenuated after further adjustment for the duration of snus use.

Conclusion: While current snus use was not associated with either baseline or annual rates of change in BMI, HbA1c, total cholesterol, or LDL cholesterol, a higher amount of snus use was cross-sectionally associated with elevated HbA1c. These findings imply that high-intensity snus use warrants consideration in cardiometabolic risk assessments, particularly regarding impaired glucose metabolism.



Health effects of vaping in adults and pregnancy-related exposure: a structured weight-of-evidence assessment

C. Leroux¹, T. Mansuy¹, M. El Bouz¹, M. Gonçalves¹, B. Labarbe¹

¹Risk Assessment Department, Anses, Maisons-Alfort, France

Background

Electronic cigarettes are widely used as alternatives to smoked tobacco, including by some pregnant women seeking to reduce or stop smoking. However, the health effects of vaping remain uncertain, particularly for long-term outcomes and for children exposed in utero. This study assessed adverse health effects of vaping in the general population and during pregnancy, using a structured weight-of-evidence approach.

Methods

A literature-based health risk assessment was conducted on cardiovascular, respiratory and carcinogenic outcomes in exclusive vapers from the general population, and on cardiovascular and respiratory effects in children exposed in utero. International assessments were used as a starting point and updated with complementary searches. For pregnancy-related evidence, an umbrella review of systematic reviews and meta-analyses was conducted and complemented by searches for recent studies. Studies were screened using PECOT criteria, appraised for quality with adapted ToxRTTool/Klimisch approaches, and synthesized within a weight-of-evidence framework to evaluate the role of vaping in the occurrence of each outcome, with conclusions classified as insufficient, possible, probable or sufficient.

Results

In the general population, 28 cardiovascular, 29 respiratory and 39 carcinogenic studies were included. Cardiovascular effects were rated probable overall, driven mainly by haemodynamic and endothelial changes, particularly with nicotine. Respiratory and carcinogenic effects were rated possible, based on lung-function or COPD-related signals and on genotoxic, epigenetic, transcriptomic or neoplastic-process findings. For pregnancy-related exposure, 32 studies were included. No maternal health outcomes were sufficiently documented. In the exposed children in utero, cardiovascular effects were rated possible, including experimental signals of cardiac alterations, oxidative stress, arterial stiffness and endothelial dysfunction. Respiratory effects were also rated possible, supported by in vivo and in vitro evidence of altered pulmonary development, lung histopathology, inflammatory responses and gene-expression changes.

Conclusions

Vaping is not risk-free. In adults, evidence supports probable cardiovascular effects and possible respiratory and carcinogenic effects. During pregnancy, available evidence does not characterise maternal effects, but suggests possible cardiovascular and respiratory effects in children exposed in utero. Evidence remains weaker than for smoked tobacco, for which these outcomes are sufficient, but these findings support precautionary advice against vaping initiation and call for longitudinal studies with robust exposure characterisation.

Digital/Media

11:15 - 12:00

Strengthening implementation of anti-tobacco media campaigns: Insights from the 2025 Global Progress Report on Implementation of the WHO FCTC

C. Martin¹, M. El Osta¹, P. Bignon¹, C. Munar-Fonseca¹, R. Guignard¹, V. Nguyen-Thanh¹

¹Santé publique France, France

Background:

Article 12 of the WHO Framework Convention on Tobacco Control (WHO FCTC) - which addresses education, communication, training, and public awareness – constitutes a cornerstone of global tobacco control efforts. However, implementation of communication programmes in various countries remains uneven. This study aims to address this gap by assessing the progress and the limitations in implementing anti-tobacco media campaigns, a key action outlined in Article 12, among the Parties to the Convention.

Methods:

The successive global progress reports on implementation of the WHO FCTC, published every second year by the Secretariat of the WHO FCTC, aim to assess progress in implementing the Convention. In 2025, a new online reporting platform was introduced for Parties to the Convention to submit their implementation report. The key indicators used to assess the implementation of anti-tobacco media campaigns over the past two years included: types of media used, topics covered (for example: health risks of tobacco consumption or benefits of tobacco cessation) and evaluations conducted. For the 2025 edition of the Global Progress Report, the WHO FCTC Knowledge Hub for Public Awareness analyzed self-reported data provided by 129 out of the 183 Parties to the WHO FCTC, presenting quantitative data as percentages of respondents.

Results:

Nearly half of the reporting Parties (46%) have declared significant progress in implementing Article 12 of the WHO FCTC over the past two years. More than half of the Parties (52%) reported conducting anti-tobacco media campaigns, especially on digital platforms: 80% used social media and 70% leveraged websites. The most frequently addressed topics were the health risks of tobacco use (75%), the benefits of cessation (71%) and the addictive nature of tobacco (71%). Almost half of the Parties (47%) based their campaigns on research findings, and 40% monitored their campaigns. However, fewer than one-third reported conducting formal impact assessments.

Conclusion:

While nearly half of the reporting Parties have reported significant progress in implementing Article 12 of the WHO FCTC, especially in conducting anti-tobacco media campaigns, persistent gaps highlight opportunities for further improvements. This study accentuates the need for targeted advocacy to strengthen implementation of evidence-based anti-tobacco media campaigns.



Development of an app for a Cognitive-Behavioral Smoking Cessation Intervention

M. Ramos-Carro^{1,2}, J. Vacas Garcia^{1,2}, C. Martínez-Vispo^{1,2}, L. Millara^{1,2}, M. Barroso-Hurtado¹, E. Becoña^{1,2}, A. López-Durán^{1,2}

¹Smoking and Addictive Disorders Unit, Faculty of Psychology, University of Santiago de Compostela, Spain

²Institute of Psychology (IPsiUS), University of Santiago de Compostela, Spain

Background: Digital interventions for smoking cessation overcome many of the challenges associated with face-to-face approaches. Mobile apps for quitting smoking have experienced a significant increase in recent years. However, only a few have been developed according to evidence-based interventions.

Aims: This study describes the components of the app, developed as part of a broader project assessing the effect of a smoking cessation intervention according to the intensity of the therapeutic contact.

Method. For the app development, expert meetings were held to discuss the app's design and features, drawing on prior experience developing smoking cessation apps, clinical expertise, and recent research. Then, a series of mock-up components were developed and shared with people who smoke to get their feedback and opinions. App content is based on an evidence-based cognitive-behavioral treatment "Programa para Dejar de Fumar".

Results.

The app includes the following components that are delivered over the course of 8 weeks: 1) information about the app; 2) tracking the number of cigarettes smoked per day; 3) psychoeducation on tobacco and smoking; 4) nicotine fading through weekly cigarette reduction goals (30% reduction every week from first treatment week) including a personalized quit day (estimated on the fifth or sixth treatment week); 5) stimulus control by selecting daily situations in which they will progressively stop smoking (e.g., driving); 6) coping with urges to smoke and withdrawal syndrome; 7) weekly physical activity goals tailored to individuals baseline level; 8) social support; 9) anhedonia and mood-focused behavioral activation tasks; 10) smoking relapse prevention; 11) motivational notifications; and 12) a reward system for goal achievement (gamification). In addition, participants will have access to the app during the 12-month follow-up period, including relapse prevention information.

Conclusion.

The app is currently in its beta version, and it will be tested by people who smoke and seek smoking cessation treatment with the purpose of detecting bugs, design, and usability problems. After that, the final version of the app will be used in a randomized controlled trial assessing the effectiveness of a cognitive behavioral intervention to quit across different levels of therapeutic contact.



Your rights versus my rights: Media representation of smoking and second-hand smoke in homes, 2015–2024

G. Lai^{1,2}, C. Gartner^{1,2}, K. Morphet^{1,2}

¹School of Public Health, The University of Queensland, Australia

²NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame, School of Public health, The University of Queensland, Australia

Background: Internationally, there has been growing interest in expanding smokefree environments to include residential settings. Historically, smokefree policies have been framed as a controversial social issue in the media, and this framing can deter policy action in advancing smokefree homes. Previous studies have examined the media discourse on smokefree policies in public or semi-private settings but none in residential settings.

Aim: We examined how the media has framed smoking and second-hand smoke drift issues in residential settings over a 10-year period in Australia.

Methods: We searched the Factiva database and used Google News search engine to identify relevant Australian news articles that reported on smoking or smoke-drift related issues in housing contexts, published between 2015 and 2024. We conducted a content analysis to determine temporal trends in article characteristics and used thematic analysis on a subset of articles to explore the news frames.

Results: We identified 220 relevant news articles. Most articles were published between 2015 and 2017, and the number of articles remained low in other years. Most of the articles included viewpoints supportive of policy change to address smoke-drift in homes, discussed smoke-drift in multi-unit housing contexts, and predominantly cited non-government organisation spokespersons. Our thematic analysis of a subsample of articles (n=89) identified three dominant news frames: moral contention between individual rights, power imbalances and the realities of smoke-drift, and government responsibility to protect public health.

Conclusion: Media interest was partly driven by policy and advocacy activities related to addressing smoke-drift in multi-unit housing contexts in Australia. The media constructed smoke-drift in homes as fundamentally conflictual, which may have deterred policy action.

Implications: Protecting people from smoke-drift while recognising the challenges that people who smoke may experience regarding compliance with smokefree laws covering private homes is complex, and provides further support for moving toward a phase-out of commercial tobacco supply. Phasing out tobacco sales would reduce smoking prevalence, and address the policy incoherence of expanding smokefree laws to cover private spaces while still allowing the retailing of a product that has serious adverse health impacts for both the person who smokes and those passively exposed.



'Microdosing the Patch': Examining off-label nicotine patch use and nicotine benefit discussions on TikTok

C. Carter¹, M. Borowiecki¹, S. Page¹, S. Emery¹, G. Kostygina¹

¹Social Data Collaboratory, NORC at the University of Chicago, United States

Background/aim: Nicotine replacement therapies (NRTs), including patches, are approved exclusively for smoking cessation in the US and the EU. Their promotion and use for other purposes fall outside regulatory authorization and raises significant public health concerns. Historically, tobacco companies strategically promoted nicotine's purported benefits, while minimizing its health risks. Increasingly, social media users are promoting nicotine patches for off-label purposes, including as "nootropics" or cognitive and physical performance enhancers, and as treatments for conditions (e.g., perimenopause, chronic pain). Our study characterizes how off-label benefits of nicotine patches are portrayed on TikTok.

Methods: Using the TikTok Research API, we collected 3,585 publicly available TikTok posts, restricted to US-registered accounts, referencing nicotine benefit-related search terms (January 2025 to December 2025), excluding posts matching nicotine cessation keywords (n=195). We human-labeled a stratified random sample posts (n=300) to identify content themes. About 16% of labeled posts discussed nicotine patches (n=48).

Results: A total of 48 TikTok posts contained nicotine patch references and nicotine benefit keywords, collectively accruing 747,613 views. Among these posts, 91.7% promoted nicotine benefits; remaining posts did not mention benefits or risks. Prominent themes included personal testimonials (77.1%), stimulative effects (e.g., focus, anti-fatigue; 75.0%), treatment of ailments (e.g., long COVID, perimenopause, and attention-deficit/hyperactivity disorder; 64.6%), and microdosing or low-dose use (39.6%), including cutting patches to achieve a self-titrated dose. Additional themes include nicotine brand mentions (27.1%), citing authoritative sources (25.0%), appetite suppression (22.9%), substitution for prescription medications (e.g., for ADHD) (20.8%), and relaxation (12.5%). Notably, few posts included risk disclaimers such as "not medical advice" or "ask your doctor" (10.4%), mentioned risks associated with high nicotine exposure (8.3%), or referenced risks of vaping or combustible tobacco use (8.3%).

Conclusion: TikTok content about off-label nicotine patch use predominantly frames nicotine as beneficial for cognition, appetite control, and symptom management, with minimal discussion of risks. Such portrayals may contribute to nicotine normalization and uptake among nicotine-naïve individuals, which is particularly concerning given that NRT products are not authorized for these uses. These findings underscore the need for updated tobacco control policies, clearer communication about authorized versus off-label NRT use, and targeted counter marketing efforts.



Engaging Users in Quit Date Goal Setting for Smoking Cessation in Mobile Formats

A. Marken¹, L. Keller², D. Crane¹

¹Smoke Free 23 Ltd, United Kingdom

²Smoke Free 23 GmbH, Germany

Rationale: Mobile smoking cessation interventions provide effective support in an accessible format, increasing uptake among harder-to-reach groups. However, mobile users typically expect lower time and effort investments compared to in-person support. This creates a complex balance between providing adequate education and ensuring engagement amongst users with a diverse range of motivations, expectations, and quit timelines.

Setting a quit date is recommended to increase commitment to an abrupt, or 'cold turkey', quit attempt. Smoke Free app implements this by prompting users to select a quit date during app set-up. Given the unique challenges of providing remote smoking cessation support, this evaluation reviews in-app user behaviour, and qualitative user insights to inform how in-person practices can be translated into a successful digital format.

Methods: A quantitative review of 3,165 users who set a quit date during app onboarding over a two-and-a-half-month period in 2025 was conducted. Six user interviews were held to assess perceptions of current quit date-setting practices, and proposed updates.

Findings: Results revealed wide variation in user behaviour and motivations. Users most frequently set their quit date as the same date as onboarding, meaning they did not override the "default date" (48.4%), followed by future dates (28.9%) and past dates (22.7%). Among non-default dates most were set within one week from onboarding (72.0% prior, 60.2% following) illustrating demand for both immediate and tailored support.

Qualitative insights from user interviews mirrored a range of engagement and readiness to quit. Due to low barriers to app access, user attitudes varied from high motivation for immediate action, to apprehension and uncertainty about the novel concept of a planned date, and high risk of disengagement.

Conclusions: This review highlights the importance of user-informed intervention development to ensure industry guidance is conveyed in a concise, flexible, and user-benefit-focused format. These insights contribute to the translation of complex behaviour change support programs to low-threshold digital services to improve the perceived relevance, commitment, and engagement.



Smoke Gets in Your Eyes: Typology of Smoking Protagonists in Modern Prestige Cinema

D. Amir^{1,2}, Y. Amir³

¹Channel 13, Reshet Media, Tel Aviv-Yafo, Israel

²Seret Film Website, Israel

³Department of Preventive Medicine and Public Health, Universidade de Santiago de Compostela, Santiago de Compostela, Spain

Background: Hollywood has featured smoking since its early days, indicating a close link between the entertainment and tobacco industries. Smoking was commonly used as an accessory element to detective and femme-fatale characters. When smoking's allure faded and research linked film portrayals to youth tobacco use, the Motion Picture Association of America (MPAA) flagged smoking in movie rating criteria. Despite a sharp decline by 2010, recent years saw a notable resurgence.

Aims: Examine the portrayal of smoking in contemporary characters and the symbolic messages it projects.

Methods: The study conducted a qualitative content analysis on smoking characters from four critically acclaimed 2025 films (Nouvelle Vague, The Phoenician Scheme, One Battle After Another, Sentimental Value) chosen through purposive sampling. Drawing on established frameworks from the tobacco-in-film literature, the characters were coded for narrative function, contextual framing, gender, socioeconomic status, and the symbolic meanings attributed to smoking within the diegesis.

Findings: Four recurring character types emerged:

The Intellectual Rebel – In *Nouvelle Vague*, real-life filmmaker Jean-Luc Godard's character employs smoking as a symbol of creative rebellion and authority to avoid social interaction.

The Powerful Patriarch – In *The Phoenician Scheme*, Anatole "Zsa-Zsa" Korda deploys tobacco as a signifier of dominance.

The Ideological Outsider – In *One Battle After Another*, Bob Ferguson smokes in contexts that frame the act as political and countercultural, clinging to an ideology he never managed to bring into fruition.

The Emotionally Fractured Artist – In *Sentimental Value*, Nora Borg uses smoking as a way of suppressing the generational trauma that haunts her.

Across all types, smoking was depicted without health consequences, and exclusively via combustible cigarettes.

Conclusions: Contemporary prestige cinema sustains a narrow but potent set of smoking archetypes in which tobacco consistently signals cultural capital, emotional depth, or transgressive identity. These characterisations persist largely within period-setting framings, a device that may render tobacco imagery more acceptable to gatekeepers while preserving its normative and aspirational register for audiences.

Regulatory frameworks and MPAA guidance appear ill-equipped to address this form of qualitative glamourisation, and monitoring of character-level tobacco narratives in prestige cinema warrants inclusion in broader tobacco control research agendas.



User-Centered Design of a Smoking Cessation Mobile App: Qualitative Findings From the Development Phase

C. Martínez-Vispo^{1,2}, L. Millara^{1,2}, M. Ramos-Carro^{1,2}, J. Vacas^{1,2}, M. Barroso-Hurtado¹, A. López-Durán^{1,2}, E. Becoña^{1,2}

¹Smoking and Addictive Disorders Unit, Faculty of Psychology, University of Santiago de Compostela, Spain

²Institute of Psychology (IPsiUS), University of Santiago de Compostela, Spain

Background: Mobile health (mHealth) interventions, such as apps, have the potential to increase access to evidence-based smoking-cessation interventions. However, low engagement and acceptability of quitting apps can limit their effectiveness, underscoring the importance of incorporating user perspectives into the design process. This study describes the qualitative phase of a broader project to develop and assess a smoking-cessation intervention.

Aims: The main aim is to explore the preferences, needs, and perceived barriers of individuals seeking smoking cessation treatment regarding the use of mobile apps, to inform the design and refinement of a smoking cessation app prototype.

Methods: Participants were adults seeking smoking cessation treatment at the Smoking and Addictive Disorders Unit of the University of Santiago de Compostela (Spain). A qualitative approach was used, with semi-structured, in-depth interviews conducted via videoconference. A total of 14 participants (64.3% females, Mage= 46.6; SD =12.2) who met the study's eligibility criteria took part in individual interviews lasting approximately 30–45 minutes. Interviews were audio-recorded and transcribed verbatim. Data were analyzed using thematic analysis with NVivo 14. Two researchers independently coded transcripts and iteratively developed a codebook guided by the research objectives and interview guide. Inter coder reliability was established with a minimum coefficient of 0.80, and discrepancies were resolved through discussion with a third researcher when necessary.

Results: The interview guide explored prior experiences with health and smoking cessation apps, perceived usefulness, facilitators and barriers to use, desired app features, and feedback on the initial prototype. Overall, most participants agreed that the app should set the main goals for smoking reduction instead of being self-established by themselves. They also emphasized that the interface should be simple and easy to use, and that the app should include information on health benefits and economic gains when quitting smoking.

Conclusions: Incorporating the perspectives of potential users during the design phase may improve the acceptability, usability, and engagement of digital smoking cessation interventions. Results from this qualitative phase will inform the final app to be evaluated in the subsequent randomized controlled trial.



Novel Nicotine Products

11:15 - 12:00

Beyond cigarettes: The dual use of E- Cigarettes & Nicotine pouches by University students.

D. Proudfoot¹¹Dublin City University, Ireland, Ireland

Background:

The emergence of e cigarettes and nicotine pouches has complicated tobacco control efforts as these products normalising nicotine use. The potential for addiction and wide reaching health consequences (Brennan et.al. 2025) is concerning. Cigarette smoking by young people has continued to decline in Ireland, however daily or occasional use of e-cigarettes and the increased use of nicotine pouches by young people is evident (HRB National Drugs Library, 2025). In 2025, sales of nicotine pouches in Ireland soared by five fold (Deegan, 2025) reflecting the growing recreational use by young people. There has been little exploration about young people's uptake and use of these products and establishing the facilitators and behaviours relating to both e-cigarettes and nicotine pouches will inform targeted interventions.

Aims:

This study sets out to gain an understanding of the drivers and user attitudes and behaviours surrounding engagement with and use of e-cigarettes, nicotine pouches, and other oral nicotine products by university students.

Methods:

This study adopts a qualitative approach to explore the students perspectives , uptake and use of these products. The study received ethical approval in January 2026 and data collection is ongoing. It is using a convenience sample of students who currently (or did so in the past) vape or use nicotine pouches. It will explore :

- Frequency and patterns of use (locations/type of social settings), access to purchase
- Knowledge about risks of vaping
- Perceived benefits of using vapes and nicotine pouches.
- Knowledge of advertisements for these products.

All qualitative data will be analysed thematically.

Results:

This paper will present the initial findings from the collected data. This will include insight into participants uptake and use of both e cigarettes and nicotine pouches, the sociality of the use of these products, the potential health risks and if they plan to quit.

Conclusion:

This exploratory research focuses on the dual use of nicotine products by university students to develop understanding of their uptake and use of these. It can potentially inform the development of interventions pertaining to these nicotine products with reference to this highly accepted social activity among under 25s.



“Designed for the seasoned user”: Examining discussion and promotion of high-strength and moist nicotine pouches on TikTok

C. Carter¹, M. Borowiecki¹, S. Page¹, S. Emery¹, G. Kostygina¹

¹Social Data Collaboratory, NORC at the University of Chicago, United States

Background/aim: Social media platforms play an increasingly central role in shaping perceptions and use of nicotine products. Although existing studies have documented widespread online promotion, the prevalence and portrayal of high-strength (8mg+ nicotine level) and moist nicotine pouch products (developed to provide a user experience similar to moist snuff in terms of nicotine delivery and satisfaction, despite containing no tobacco leaf) remain underexplored. This study investigates how high-strength and moist nicotine pouches are represented and marketed on TikTok.

Methods: Using the TikTok Research API, we collected 39,271 publicly available U.S. TikTok posts referencing nicotine (January 2025 to December 2025). We used search rules related to high-nicotine products (e.g., extra strong, 8mg to 50mg) and brands (e.g., Zyn, Alp), moist pouches and relevant jargon (e.g., lip pillow, upperdecky) to extract only content of interest, totaling 71 relevant posts. These posts were human labeled to identify content themes. Posts that mentioned quitting high-nicotine pouches were considered non-relevant.

Results: Among relevant posts, 61% were unofficial influencer promotions, 11% were official brand advertisements, and 11% were advertisements for online stores selling various brands. The vast majority (83%) of relevant posts focused on high-nicotine pouches, with content themes including humor, alleged health benefits, social and productivity themes. Appealing flavors were also highlighted in 50% of relevant posts, with sweet or fruity flavors dominating. Influencer promotion targeted existing users (e.g., as a tobacco product substitute) and potentially appealed to new users (e.g., using masculinity appeals such as fitness performance enhancement and military hashtags). Promotion was frequently framed as a product review or testimonial. Paid promotion disclosure was rare and counter-messaging about the dangers of nicotine pouch use was present but uncommon.

Conclusion: TikTok is emerging as a marketing platform for high-strength pouches with unofficial influencer endorsement and promotion being the dominant marketing strategy. Notably, promotion has moved beyond mere recreational appeal, with posts highlighting fitness, social, and military associations with product use. Social media surveillance can be used to effectively identify and track emerging nicotine products and brands, as well as to track commercial patterns as marketing and sale of products via social media increase.



Harm reduction beliefs sustain nicotine pouch use: A cross-sectional survey of current and former oral nicotine pouch users

M. Little¹, I. Mallawaarachchi¹, M. Moncrief¹, K. Blake², D. Noonan³

¹University of Virginia, United States

²West Virginia University Cancer Institute, United States

³Duke University, United States

Background: Nicotine pouch (NP) use is growing rapidly in the United States, with rural Appalachia representing a population of particular concern given that smokeless tobacco use rates in some parts of rural Appalachia are more than double the national average. Understanding motivations for NP use in this underserved region is critical for intervention design and regulatory policy, yet no prior research has examined NP use motives specifically among rural Appalachian adults.

Methods: A convenience sample of 106 lifetime nicotine pouch users was recruited through flyers posted in n=7 pharmacies in rural areas of Virginia, Kentucky and West Virginia in the United States. Eligible participants were 18 years or older, reported lifetime NP use, and resided in rural Appalachia. Thirteen motivation items adapted from the PATH Adult Tobacco Survey assessed reasons for NP use with Yes/No/Don't know responses. Current NP users (past 30-day use) were compared to former users using chi-square tests with Yates' continuity correction.

Results: Of 106 lifetime NP users, 68 (64%) were current users and 30 (28%) were former users. Most participants reported lifetime use of other tobacco products (85.8%), including cigarettes (69.8%), e-cigarettes (61.3%), and smokeless tobacco (43.4%). And 92.5% used a flavored NP the time they tried an NP. The most endorsed motives overall were convenience in smoke-free spaces (85.9%), availability of appealing flavors (78.3%), and acceptable to non-users (70.0%). Five motives significantly differentiated current from former users: belief that NPs help quit other tobacco/nicotine products (83.9% vs. 40.7%, $p<0.001$), acceptability to non-users than other products (87.5% vs. 58.3%, $p=0.009$), perceived reduced harm of NPs to others around them (87.7% vs. 60.9%, $p=0.016$), stronger sensations (58.2% vs. 28.0%, $p=0.024$), and perceived reduced harm to self (86.3% vs. 62.5%, $p=0.041$). Motives reflecting convenience, flavors, and affordability did not differ by user status.

Conclusions: Beliefs about harm reduction and social acceptability were the strongest motives associated with sustained NP use. Findings suggest current users have constructed an active harm reduction rationale for continued use. Cessation programming for this population must directly address the perceived relative harmfulness that users attribute to NPs, as an adjunct to standard abstinence-focused messaging.



Nicotine Pouch Brands and Online Sentiment: Insights from Reddit to Advance Tobacco Endgame Strategies

Y. Hswen¹, E. Yang², M. Hurley², E. Han^{2,3}, P. Ling²

¹University of Maryland, United States

²University of California San Francisco, United States

³Rice University, United States

Background

As cigarette use declines, nicotine pouches have rapidly emerged as a prominent alternative nicotine product, raising new challenges for tobacco control, regulation, and population health. Marketed as tobacco free and lower risk, these products often feature flavors and branding that may appeal to younger populations. Understanding brand specific perceptions in real world settings is critical to advancing evidence based and equitable tobacco endgame strategies.

Aims

To characterize brand specific discourse and sentiment surrounding leading nicotine pouch brands using large scale social media data.

Methods

We analyzed 37,797 posts from the Reddit community r NicotinePouches using a computational mixed methods approach. Data were collected via the Pushshift API and preprocessed using standard natural language processing techniques. Eight leading brands were examined: ZYN, on!, Rogue, VELO, Lucy, FRE, NIIN, and FR3SH. Brand prevalence was assessed using keyword frequency. Sentiment was quantified using VADER compound scores to generate overall and brand specific sentiment distributions.

Results

Overall sentiment toward nicotine pouches was predominantly positive (50.6 percent), with 25.1 percent neutral and 24.3 percent negative posts. Substantial heterogeneity was observed across brands. on! (n = 11,594), Rogue (n = 9,106), and ZYN (n = 8,032) dominated online discussions, reflecting high visibility. ZYN exhibited the lowest mean sentiment (0.094) and the highest proportion of negative posts (28.1 percent). In contrast, less frequently discussed brands such as FR3SH (63.6 percent positive) and NIIN (61.4 percent positive) demonstrated more favorable sentiment profiles. These differences suggest that consumer perceptions may be shaped by marketing exposure, product experience, and brand positioning.

Conclusion

The predominance of positive sentiment, combined with brand level variation, raises concerns about normalization of nicotine use, particularly among younger and digitally engaged populations. Online discourse may amplify harm reduction narratives while underrepresenting risks, contributing to disparities in health knowledge and dependence. Social media analysis offers a scalable, real time surveillance tool to inform responsive regulation, targeted risk communication, and population level interventions to advance the tobacco endgame.



Nicotine pouch use in Germany: Low prevalence but increasing awareness in repeated nationally representative cross-sectional surveys (2021-2025)

S. Klosterhalfen¹, D. Kotz^{1,2}

¹Institute of General Practice (ifam), Centre for Health and Society (chs), Addiction Research and Clinical Epidemiology Unit, Medical Faculty and University Hospital Düsseldorf, Heinrich-Heine-University Düsseldorf, Germany

²Department of Behavioural Science and Health, University College London, United Kingdom

BACKGROUND

Nicotine pouches (NPs) have recently entered the European market and are currently prohibited in most countries, including Germany. They are deliberately marketed as modern, discreet, and potentially less harmful alternatives to traditional tobacco products. Little is known, however, about trends in prevalence and patterns of use in Germany.

AIMS

To assess trends in prevalence and patterns of NP use in Germany, including sociodemographic characteristics, reasons for use, and co-use of other nicotine products.

METHODS

Data were drawn from the German Study on Tobacco Use (DEBRA), a repeated cross-sectional survey of nationally representative samples of the German population, conducted about every two months using computer-assisted personal interviews. We analysed data from 38,173 respondents aged 14-64 years, collected between February 2021 and February 2025. Participants were classified into five groups based on NP use status: current, former regular, former experimental, never but aware, and never and unaware. Weighted descriptive analyses prevalence trends were calculated. Differences between ever users (i.e., current + former) and never users were examined using χ^2 tests.

RESULTS

In 2024, 0.2% (95%CI=0.1-0.3) of the population reported current use, 1.4% (95%CI=1.2-1.7) ever use, and 35.3% (95%CI=34.3-36.3) was aware without ever using them. Between 2021 and 2025, ever use increased slightly over time with fluctuations (0.7%-1.9%), while current use remained consistently low (<0.1%), with occasional short-term spikes (0.3%-0.7%). Awareness without ever use rose from 19.4% to 43.0%. Compared with people who never used NPs, people who ever used them were more likely to be male, aged 18-39, lower educated, and co-user of nicotine/tobacco products. No differences were observed by income or region. Among current and former regular users, the most common reasons for use were enjoyment 30.7%, reducing tobacco consumption without quitting 26.2%, and use in smoke-free settings 18.5%; multiple responses were possible.

CONCLUSION

Current NP use in Germany was low, but 0.2% of respondents reported use despite the product being prohibited, and awareness increased substantially over time. Use was more common among younger people and users of other nicotine/tobacco products. Continued surveillance is needed, particularly in groups with higher uptake.



Population Level Interventions

11:15 - 12:00

Cigarette health warning label compliance in Nigeria: A multi-city observational study

O.F. OWOPETU¹, O. Oladeinde², J.O. Esan³, I. Agaku⁴, M. Iacobelli⁵, A.O. Adebisi⁶

¹UNIVERSITY COLLEGE HOSPITAL, IBADAN, NIGERIA, Nigeria

²UNIVERSITY OF IBADAN, COLLEGE OF MEDICINE, Nigeria

³Nigeria Tobacco Control Alliance, Nigeria, Nigeria

⁴Department of Oral Health Policy and Epidemiology, Harvard School of Dental Medicine, Boston,, United States

⁵Department of Health, Behavior and Society, Institute for Global Tobacco Control, Johns Hopkins Bloomberg School of Public Health, Baltimore, United States

⁶Department of Community Medicine, College of Medicine, University College Hospital, Ibadan,, Nigeria

BACKGROUND

Tobacco remains the world's leading preventable cause of death, with the majority of tobacco-caused deaths occurring in low- and middle-income countries. Article 11 of the FCTC focuses on using the tobacco package to communicate tobacco-caused harms; it also seeks to restrict the delivery of misleading information on the pack about the product.

AIMS

The objective of this study was to establish a surveillance system for tobacco packs in Nigeria, to assess pack compliance with the in-country health warning label

requirements. The Tobacco Pack Surveillance System (TPackSS) monitors whether required health warnings on tobacco packages are implemented as intended and identifies pack designs that violate the communication of harm-related information and undermine the impact of the country's tobacco packaging laws.

METHODS Tobacco cigarette packs were collected in three of the largest cities in Nigeria to construct a census of 'unique' pack presentations available for purchase. We implemented the TPackSS standardized Protocol for acquiring packs from 36 diverse neighborhoods across three cities. At the time of purchase, data on the price and place of acquisition of each pack were recorded. We photographed packs, coded, and archived them. Each pack was coded for compliance according to the current health warning label laws. Each pack was coded consistently by two independent coders. We routinely measured intercoder reliability and only retained variables for which a good level of reliability was achieved.

RESULTS

The team collected 90 tobacco packs, 77% of packs evaluated for HWL compliance complied with all the relevant

common indicators of HWL compliance. There was a 92% compliance with the location of the HWL (e.g., top or bottom of pack, front or back panel) with in-country requirements. Of the four compliance indicators, the size of the HWL (the

minimum required coverage) showed the lowest compliance (31%) (i.e., the HWL was too small on most of the packs). Label elements (such as color contrast or content of warnings) showed 85% compliance overall.

CONCLUSION

The analysis of the packs showed various levels of compliance with Health Warning Label provisions for Nigeria. Periodic evaluations are required to ensure that minimum requirements are met.



Monitoring compliance with a national comprehensive tobacco marketing ban in Mexico

K. Wasson¹, A. Bolaños Casarin², J. Keng¹, V. Ochoa², M.J. Landa Medina³, A. Fernandez Canisales³, V.H. Cruz Pavon³, N. de Jesús González Mendoza³, K. Avila Alcantara³, E. Sebríe¹

¹Campaign for Tobacco-Free Kids, United States

²Campaign for Tobacco-Free Kids, Mexico

³Servicios a la Juventud, Mexico

Background: In February 2023, the amendment to the Regulations of the General Law for Tobacco Control in Mexico went into effect, explicitly prohibiting all types of tobacco advertising, promotion, and sponsorship (TAPS) at the national level.

Aim: This monitoring at tobacco points of sale was conducted to document compliance with the TAPS ban and main sales provisions of these regulations in two Mexican cities.

Methods: This observational study was conducted in Mexico City and the city of Puebla in August 2025. A convenience sample of tobacco points of sale (POS) was collected using a standardized walking protocol. Observed POS (N=409) included: small stores/kiosks (n=276), convenience stores (n=73), supermarkets (n=30), pharmacies (n=24), alcohol specialty stores (n=5), and department stores (n=1). Compliance indicators assessed both TAPS and sale provisions. Six compliance categories were created: 1) overall compliance; 2) compliance with product display ban; 3) compliance with TAPS (other than display) ban; 4) compliance with signage provisions; 5) compliance with single stick ban; and 6) compliance with a price list, including its design requirements.

Results: Overall compliance with both the TAPS ban and sales provisions of the Regulations was nonexistent in both cities. The highest observed compliance across both cities was the TAPS ban (68.2%), followed by the POS signage requirements (29.3%), single stick sales ban (29.6%), product display ban (16.1%), and price list display and requirements (0.2%). Compliance was higher in Puebla amongst all categories than in Mexico City, with Puebla's highest being the TAPS ban (76.2%). No single type of POS was more compliant with all categories than others, but all supermarkets and all but one convenience store in both cities were compliant with the TAPS ban. Only one small store/kiosk in Puebla complied with the requirements for a price list (0.2%).

Conclusions: Compliance with the TAPS ban and sales provisions of the new Regulations is low in both Mexico City and Puebla with some exceptions. Overall compliance was nonexistent. Nonetheless, over two-thirds of all POS complied with the TAPS (other than product display) ban. POS in Puebla were generally more compliant across all categories than those in Mexico City.



The impact of pack characteristics on product choice: A discrete-choice experiment with adult current nicotine users in the UK

C. Best¹, C. Moodie¹, G. Alexandrou¹, A. Ford¹, A.M. MacKintosh¹

¹University of Stirling, United Kingdom

Introduction: The Tobacco and Vapes Act in the UK allows the UK Government to regulate the appearance of vape and nicotine pouch packaging.

Methods: A discrete choice experiment was conducted with adult current nicotine users (n=2482) in the UK between April and May 2026. Participants were shown four choice sets, with each set containing a vape, nicotine pouch and cigarette pack, and asked which, if any, they would choose. There were four attributes for vape and nicotine pouch packs: 1) pack design (fully-branded, white, grey, brown), 2) warning size (0% [for pouches only as no warning is currently required on packs], 30%, 65%), 3) brand name design (original, standardised), and 4) flavour descriptor (concept name, basic flavour). The characteristics of the cigarette pack, not subject to change under the Tobacco and Vapes Act, did not vary.

Results: Two attributes (pack design and warning size) had a statistically significant effect on product choice. The impact of changing vape packs from fully-branded to brown (Pantone 448c) differed by nicotine user group. Dual users and current vapers were less likely to choose a vape when the packaging was standardised. For dual users the impact of changing vape packing to brown was that the probability of choosing the vape dropped from 42% to 39% and the probability of choosing a cigarette pack increased from 32% to 36%; for exclusive vapers the shift was to no product. Although the attributes explored had an effect on product choice, in general the findings showed stability, particularly for single product users, with most consistent in their product choice across the different pack options.

Discussion: The findings suggest that pack design influences product choice and these effects differ by user groups. The effects are small relative to established consumption patterns in this adult sample. We found that changing vape packaging to brown may result in some dual users switching to cigarettes.



Unpacking Cigarette Packaging: An Analysis of Tobacco Industry Documents

T. Dewhirst¹

¹University of Guelph, Canada

Background: Cigarette packaging has played an important role in upholding brand-building processes despite tobacco companies navigating within stringent regulatory environments.

Aims: This study examines the strategic role of packaging as a marketing communications tool among the Canadian tobacco industry. The principal research question guiding this case study is: What are tobacco companies' marketing objectives, with a particular focus on the role of packaging design, and what strategies have been employed by the tobacco industry to meet those objectives?

Methods: A case study is provided wherein internal marketing planning documents from the tobacco industry – normally proprietary but made public from litigation – are analyzed. Tobacco industry documents were searched online from the “Canadian Tobacco Industry Collection” of the Truth Tobacco Documents Library. Search specifications prompted generated documents to be reviewed for relevance, organized chronologically, summary memoranda to be written, as well as common themes to be identified.

Results: The analysis of internal corporate documents from the tobacco industry reveals three key themes. First, shifts in promotional spending have been observed from tobacco companies, with packaging becoming an increasingly important marketing communications tool as other elements of the promotional mix were no longer allowable. Second, marketing planning documents from the tobacco industry reveal the package's role in attracting attention and communicating brand imagery. Packages are designed to be eye-catching and attractive, and meant to influence consumer product perceptions. Packaging design studies, commissioned by tobacco companies, also explored ways of drawing attention away from mandated health warnings. Third, brand extensions or variants have facilitated tobacco companies to ably position and create the perception that some cigarettes are healthier versions of others. Intra-brand family codes such as colors, numbers, and symbols have been used to infer relative harm based on their sequential tar yields.

Conclusion: Tobacco companies have commonly responded to partial promotional bans in ways that undermine their effectiveness. Ultimately, the findings help inform plain and standardized packaging regulations for tobacco products that took effect in Canada during 2019, and which faced a constitutional challenge from Canada's three major tobacco manufacturers. The Canadian context provides important lessons for other jurisdictions including Europe.



Testing a Continuum of Risk Graphic with Adults Who Smoke Daily: A Pilot Study

E. Hackworth¹, S. Jimenez¹, O. Wackowski², D. Carroll¹, D. Hatsukami¹

¹University of Minnesota, United States

²Rutgers University, United States

Background:

While non-combusted nicotine products (e.g., e-cigarettes, pouches) can reduce harm relative to cigarettes, misperceptions persist. This study evaluated reactions to an educational graphic depicting products on a 'continuum of risk'.

Methods:

We recruited 300 US adults who smoke > 5 cigarettes/day and mainly factory-made cigarettes (vs. roll your own). All participants viewed the graphic and then were asked how clearly it communicated that some nicotine and tobacco products are less harmful than cigarettes; to rate its perceived message effectiveness; and to indicate how much it made them want to do the following, each asked separately with 'Yes' or 'No' response options: 1) quit smoking cigarettes, 2) quit all nicotine/tobacco products, 3) try lower harm products, and 4) completely switch to lower harm products. Linear and logistic regression models were used to identify significant correlates of outcomes including sociodemographic characteristics (age, sex, race/ethnicity, education, health literacy) and smoking characteristics (cigarettes per day, recent quit attempt, past month use of other nicotine/tobacco products).

Results:

Most (86%) participants indicated that the image clearly communicated that some nicotine and tobacco products are less harmful than cigarettes. Nearly half of participants indicated that the image made them want to 1) quit smoking (46%), 2) quit all nicotine and tobacco products (45%), 3) try a lower risk product (53%), and 4) completely switch to a lower risk product (44%). Participants who were Black vs. White, of lower health literacy, and had recently attempted to quit rated the image as more effective and were more likely to indicate that the image made them want to quit smoking, try, or switch ($p < 0.05$). Alternatively, participants who smoked more cigarettes per day rated the image as less effective ($p < 0.01$) and were less likely to quit smoking, quit all products, try, or switch ($p < 0.05$).

Conclusions:

Preliminary results indicate that this type of 'continuum of risk' graphic may serve as an approach to educate people who smoke about lower risk tobacco/nicotine products, particularly groups with higher rates of tobacco-related disease such as Black people and people with lower health literacy. Research on behavioral effects from viewing the graphic is warranted.



The Effect of Usual Brand Packaging on Perceptions of Very Low Nicotine Content Cigarettes and Behavioral Intent: A Pilot Study

E. Hackworth¹, S. Jimenez¹, S. Katz¹, D. Carroll¹, D. Hatsukami¹

¹University of Minnesota, United States

Background:

There is abundant evidence that very low nicotine content (VLNC) cigarettes can aid in smoking cessation. Therefore, several countries have considered reduced nicotine standards, where all cigarettes would be required to be VLNC. However, evidence of VLNC cigarette effectiveness comes from studies that use study cigarettes, such as Spectrum research cigarettes. Because brand identity is an important component of smoking for people who smoke, we hypothesized that brand preference (i.e., packaging) may counteract the effectiveness of VLNC cigarettes. In this between-subjects experiment, people who smoke daily were shown either their usual brand or a Spectrum brand cigarette with a reduced nicotine label and were asked about their perceptions of the cigarettes.

Methods:

We recruited 300 U.S. adults in March 2026 who smoke at least 5 cigarettes per day. Eligible participants smoked only or mainly factory-made cigarettes (vs. roll your own), were 21 years or older, and usually smoked one of 12 top-selling brands. After viewing an image of a cigarette package (usual brand or Spectrum) with identical labels that said: "Contains 95% less nicotine, which greatly reduces your nicotine consumption," we asked participants about their willingness to try (not at all – extremely), what they would do if they were the only cigarettes available (quit/smoke less vs. continue/smoke more), how effective they would be at helping them quit smoking (not at all – extremely), and message reactance (i.e., does the message annoy you?). We examined each outcome by condition using regression models, adjusting for sociodemographic and smoking covariates.

Results:

Participants who viewed their usual brand of cigarettes with a reduced nicotine label were significantly more willing to try them than those who viewed the Spectrum cigarettes with the same label ($p < 0.001$); however, those who viewed their usual brand also indicated they were less likely to reduce smoking if all cigarettes were VLNC ($p < 0.001$). There was no difference in effectiveness or reactance between conditions.

Conclusions:

VLNC cigarettes in usual brand packaging may be more appealing to people who smoke compared to those in Spectrum brand packaging. Future research should examine these outcomes in a clinical trial to inform policy.

Attitudes on smoke-free and aerosol-free environments at a university medical center in Germany

M.C. Friberg^{1,2}, K. Gali^{1,3}

¹Cancer Epidemiology and Prevention Group, University Cancer Center Hamburg, University Medical Center Hamburg-Eppendorf (UKE), Germany

²Department of Medical Psychology, University Medical Center Hamburg-Eppendorf (UKE), Germany

³Hamburg Center for Health Economics (HCHE), University of Hamburg, Germany

Background: As of April 2024, Germany's Federal Non-Smoker Protection Act extended its existing smoking ban to include cannabis products, e-cigarettes, and heated tobacco devices. States can further smoke-free legislation by restricting smoking in outdoor public spaces such as universities and hospitals. Despite the known harms of smoking and secondhand exposure, compliance to smoking bans remain a challenge. This study aimed to assess attitudes towards a smoke- and aerosol-free environment (SAFE) policy at a university medical center in Germany.

Methods: Between June and July 2025, employees, students, patients, and guests of a university medical center completed a brief online survey.

Results: The study sample (N = 170) was 58.8% female with a mean age of 33.9 years (SD=13.4). Few reported currently smoking cigarettes (27.1%), vaping e-cigarettes (12.2%), or using cannabis (8.2%). While most (90.0%) were aware of the smoking policy, only 38.6% of those who smoke daily did so in designated areas. On a 5-point Likert scale, participants expressed high agreement that staff, students, patients, and guests should not be exposed to cigarette smoke (M = 4.11, SD = 1.32) or aerosols from e-cigarettes (M = 3.94, SD = 1.37) on campus. On a 7-point Likert scale, agreement towards not being exposed to cannabis was also high (M = 5.96, SD = 1.73). Support for designated smoking areas on the hospital grounds was moderate (M = 3.55, SD = 2.16). Most supported a warning followed by a fine (38.2%), no action (20.6%), just a warning (17.6%), and just a fine (14.1%) for non-compliance. Suggested measures to improve compliance included better and consistent enforcement of the policy.

Conclusion: Support exists for a SAFE policy, but enforcement is lacking. Further research is warranted to investigate strategies to improve compliance.

Keywords: smoke-free policies, smoke-free regulations, smoking bans, attitudes.



Inequities in the compliance of court-ordered point-of-sale tobacco industry corrective statements, USA

A. Kong¹, K. Ribisl², E. Ip¹, D. Giovenco³, J. Matheny⁴

¹Wake Forest University School of Medicine, United States

²Indiana University School of Public Health, United States

³Columbia University Mailman School of Public Health, United States

⁴Independent Researcher, United States

Background: In 1999, the United States (U.S.) Department of Justice filed a lawsuit against major tobacco companies, and in 2006, a federal court found these companies guilty of violating civil racketeering laws for deceiving the public about cigarette harms and addictiveness. After 16 years of legal battles, the court ordered 17 corrective statements to be placed in over 200,000 tobacco retailers to educate the public on the truth about tobacco-related harms. An auditor hired by the tobacco companies found 77%-82.6% compliance with the placement of the corrective statements, but it is not yet known if compliance was equitable across neighborhoods.

Aims: Assess neighborhood-level sociodemographic differences in tobacco retailers' compliance with the retail display of federal court-ordered corrective statements.

Methods: We conducted a pooled cross-sectional analysis of compliance audit data from four audit periods collected between October 8, 2023-June 30, 2025. We analyzed audit data (n=33,977 in-person retailer audits) from 29,131 tobacco retailers across all U.S. states. We downloaded 2019-2023 American Community Survey census tract racial/ethnic and socioeconomic data and spatially joined estimates to each retailer audit. We calculated quintiles of sociodemographic variables and fit multivariable logistic regression models testing associations between sociodemographic variables and major noncompliance (vs. compliance) and minor noncompliance (vs. compliance) at the audit level.

Results: Overall compliance was 80.4%. Audits indicated retailers located in neighborhoods with the highest (vs. lowest) percentage of Non-Hispanic Black residents had 2.19 (95% CI 1.92 to 2.49) times the odds of being major noncompliant (vs. compliant). Inequities in major and minor noncompliance were also present by percentage of Hispanic/Latine residents and median household.

Conclusion: Compliance with the mandated display of corrective statements, which was intended to increase knowledge and educate the public about the harm of cigarettes and the tobacco industry's deception, was not equitable. Additional public health policies and education, especially in places experiencing an inequitable burden of tobacco industry presence, tobacco use, and associated morbidity and mortality, are needed. Finally, this landmark court ruling may have set a legal precedent such that similar policies could be pursued for manufacturers of other harmful commodities, emphasizing the role of corporate responsibility.



Identifying barriers and facilitators to the implementation of zoning policies to equitably reduce neighborhood tobacco retailer availability, Oklahoma, USA

A. Kong¹, K. Reilly¹, A. Strahley¹, D. Giovenco², C. White¹, M. Meaney³

¹Wake Forest University School of Medicine, United States

²Columbia University Mailman School of Public Health, Department of Sociomedical Sciences, United States

³Public Health Law Center, United States

Background: Living in a neighborhood with greater tobacco retailer availability (TRA) is associated with higher tobacco use, and in the United States, tobacco retailers are more prevalent in neighborhoods with lower socioeconomic status and a higher percentage of certain racial/ethnic groups. Zoning regulates how land is used and may be an innovative tool to equitably reduce TRA, especially in communities that are preempted or prohibited by the state from implementing other types of local retail-based policies.

Aims: We qualitatively identified facilitators and barriers to the implementation of pro-equity zoning-based tobacco control (ZBTC) policies in Oklahoma (USA), a state with some of the strongest preemption on local tobacco control policies.

Methods: We purposively recruited 15 key representatives, defined as Oklahoma individuals who lead or advocate for the implementation of tobacco control policies or public health professionals who educate policymakers on tobacco control. We conducted virtual semi-structured interviews and asked participants about their perspectives on the acceptability, adoption, feasibility, implementation, and sustainability of ZBTC policies. Two coders thematically analyzed transcripts.

Results: Strategies to facilitate the implementation of ZBTC policies included partnering with local organizations, educating community members and lawmakers about zoning, providing toolkits on how to implement ZBTC policies, and emphasizing community and youth health benefits. While participants shared support for ZBTC policies, they also identified barriers, including a lack of understanding of zoning, the perception that ZBTC policies as anti-business, tobacco industry pushback, and lack of capacity to implement and enforce policies. Participants discussed that 'equity' based policies may face significant hurdles in the current U.S. federal climate.

Conclusion: ZBTC policies may be a feasible policy option to reduce tobacco retailer availability even in states facing significant preemption. ZBTC policies were generally supported by participants for their potential to protect youth and improve community health, but education, local partnerships, and strategic messaging are essential to building political will and capacity for efficacious implementation given anticipated challenges.



Interactions Between Minimum Age of Sale and Youth Purchase, Use, and Possession (PUP) Laws: Evidence from the U.S. and Implications for the EU

A. Milstred¹, L. Beebe¹, A. Cohn¹

¹University of Oklahoma Health Campus, United States

Introduction: The US increased the federal minimum age of sale for tobacco products from 18 to 21 years old (T21) in 2020. State-specific Purchase, Use, and Possession (PUP) laws penalize youth for underage tobacco purchases and assume that harsher penalties will effectively deter such behavior. But PUP laws show little effect at reducing underage tobacco use. In contrast, the federal T21 law emphasizes punishing retailers for underage sales and has effectively increased retailer compliance and reduced youth tobacco use. This study examined how PUP laws changed before and after T21 and whether PUP severity is correlated with greater retailer non-compliance for minimum age of sale laws.

Methods: PUP laws for all 50 US states and the District of Columbia (DC) were obtained from the Centers for Disease Control STATE system for the first quarters of 2016 (pre-T21) and 2025 (post-T21). PUP laws at each time point were categorized for severity level as strong (criminal charges/fines >\$100), moderate (fines <\$100/civil penalties), or low/none (community service/treatment referral/no penalties). Retailer non-compliance data were obtained for the same time periods from the US Food and Drug Administration retailer compliance checks database, with rate of non-compliance defined as the proportion of violations relative to the total number of compliance checks conducted. Linear regressions and one-way ANOVAs compared retailer non-compliance rates by PUP severity pre- and post-T21.

Results: From 2016 to 2025, the percentage of states with strong and moderate PUP laws decreased by 21.6% and 3.9%, respectively, while no/low PUP states increased by 25.5%. Retailer non-compliance rates remained unchanged from 2016 to 2025, with an average non-compliance rate of 10.6% (range:4.0%-27.8%) pre-T21 and 10.2% (range:6.8%-13.8%) post-T21. At 2016 and 2025, no relationship was found between PUP severity and retailer non-compliance (p 's>.05)

Conclusion: States increasingly moved away from punitive PUP laws post-T21, reflecting a policy emphasis on retailer responsibility, rather than on punishing youth. Data suggest that PUP laws do not impact retailer non-compliance, and retailer-centered enforcement approaches may be more effective than penalizing youth. EU countries should consider removing youth penalties in favor of retailer centric policies to reduce underage use of tobacco products.



Individual and neighborhood correlates of real-time tobacco purchases in areas with flavored sales restrictions

S. Rose¹, L. Henriksen², D. Mattingly¹, M. Ickes³, J. van de Venne¹, W.J. Christian⁴, M. Patel⁵, M.K. Rayens⁶

¹University of Kentucky College of Medicine, United States

²Stanford University School of Medicine, United States

³University of Kentucky College of Education, United States

⁴University of Kentucky College of Public Health, United States

⁵American Cancer Society, United States

⁶University of Kentucky College of Nursing, United States

Background: Variation in local flavor policies can impact the accessibility of flavored tobacco in communities. Differential policy impact by individual and neighborhood characteristics (e.g., race/ethnicity, socioeconomic status) may further widen existing disparities.

Aims: To assess real-time flavored tobacco sales among youth and young adults not engaged in enforcement activities in areas with flavor policy variants.

Methods: We recruited a purposive community-based sample of youth and young adults (ages 15–24, n=467) regardless of tobacco use status across 8 U.S. jurisdictions representing four types of flavored tobacco sales restrictions: comprehensive, adult-only retailer exemptions, mint/menthol flavor exemptions, and e-cigarette only. Participants completed 14-day ecological momentary assessments on their phones, reporting on visits to stores selling tobacco or nicotine products. The analytic dataset comprised 418 participants who reported on tobacco/nicotine purchasing (8 product types) and product flavor. As a secondary analysis, store reports were validated by linking store addresses to tobacco retail license lists, internet searches, and/or participant confirmation, enabling assignment of census tract demographics from the U.S. Census Bureau. Logistic regression with robust standard errors clustered by participant and site was used to examine correlates of flavored purchases by policy condition and individual-level demographics. Validated store analyses also incorporated census tract demographics. Analyses were conducted in Stata 16.1.

Results: Among 418 participants, there were 663 store-visit observations; 10% included any tobacco purchase and 6.9% included a flavored purchase. Additionally, 428 store reports were validated to confirmed locations. For reported stores, participants in jurisdictions with e-cigarette only, mint/menthol, or adult-only retail exemptions were more likely to report flavored tobacco purchases than those under comprehensive policies. Hispanic participants were more likely than White participants to report a flavored purchase. For validated stores, flavored purchases were most likely under adult-only retailer exemptions compared to comprehensive policies and in census tracts with higher proportions of Hispanic residents. No individual-level correlates were significant in validated store analyses.

Conclusions: Compared with comprehensive policies, jurisdictions with exemptions for specific flavors or retailer types were associated with a greater likelihood of flavored tobacco purchases among youth and young adult residents.



Menthol flavor enhancer use and willingness to buy under a menthol cigarette ban

M. Sakhuja¹, S. Farris¹, M.G. Hall¹, T. Licciardello Queen¹, J. Mendel Sheldon¹, S.D. Mills¹, C. Rosario², K.M. Ribisl¹, A.J. Lazard¹, P. Sheeran¹, N.T. Brewer¹

¹University of North Carolina at Chapel Hill, United States

²University of North Carolina at Greensboro, United States

Background. In response to bans on the sale of menthol cigarettes, new products have emerged that allow individuals to add menthol flavors to non-menthol cigarettes.

Aim. Our study examined the past use of such products and willingness to use them in the future.

Methods. We conducted an online survey in 2024 with a nationally representative sample of 1,236 US adults (age 21+) who currently smoked menthol cigarettes. Participants reported whether they had ever used menthol flavor enhancers for cigarettes (filter tips, liquid, capsules, or cards) and willingness to buy them if menthol cigarettes were banned. Analyses were weighted to provide nationally representative estimates.

Results. Overall, 28% of participants had used menthol flavor enhancers. Past use was more common among those who used other tobacco products versus those who smoked only cigarettes (37% vs. 11%, OR: 3.31, 95% CI: 1.81-6.03). Past use was also higher among transgender adults (vs. cisgender adults), Western US residents (vs. residents of Northeast, South, and Midwest US regions), men (vs. women), and participants in the combined racial category (Hispanic, multiracial or other) compared with non-Hispanic White participants (all $p < .05$), while non-Hispanic Black participants did not differ ($p > .05$). Overall, 55% of participants were willing to buy menthol flavor enhancers if menthol cigarettes were banned. The highest willingness (29%) was in a menthol filter tip placed on cigarettes. Willingness was higher among participants who used other tobacco products and were transgender (both $p < .05$).

Conclusions. Interest in menthol flavor enhancers was high among people who smoke menthol cigarettes, which could undermine the intended public health benefits of menthol cigarette bans. Policies to address menthol flavor enhancers, combined with surveillance and cessation support, may be important to the success of menthol bans.



Anticipated behavioural responses to increased travel time to purchase tobacco: Findings from the 2016-2024 International Tobacco Control Four Country Smoking and Vaping Surveys

A. Cho^{1,2}, Y. Yang², K. East³, M. Cummings⁴, A. Hyland⁵, G. Fong^{6,7}, C. Gartner^{1,2}

¹NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame, Australia

²School of Public Health, The University of Queensland, Australia

³Department of Primary Care & Public Health, Brighton and Sussex Medical School, University of Brighton and University of Sussex, Falmer, Sussex, United Kingdom, United Kingdom

⁴Department of Psychiatry and Behavioral Sciences, Medical University of South Carolina, United States

⁵Department of Health Behavior, Roswell Park Comprehensive Cancer Center, United States

⁶Department of Psychology, University of Waterloo, Canada

⁷School of Public Health Sciences, University of Waterloo, Canada

Background: Reducing tobacco retailer density could advance a tobacco endgame by reducing impulse purchases and increasing the costs of smoking through increased travel time to obtain tobacco.

Aim: We explored anticipated behavioural responses to a 30-minute increase in travel time to purchase cigarettes via retail reduction and identified associated factors among individuals who smoke within four high income countries.

Methods: We analysed data from 3,034 adults who smoke who participated in the 2022 International Tobacco Control Four Country Smoking and Vaping Survey. The main outcome measure was anticipated behaviour to increased travel time scenario, dichotomised as quitting or not quitting (including no change, buy more, less often, buy the same amount, less often, switch to online or illicit market, and 'don't know'). Weighted proportions were reported, and logistic regression was used to assess associations between quitting and participant characteristics.

Findings: Across countries, most respondents who smoked reported that they would not quit if travel time increased (86.6% to 91.4%). Participants in England and Australia were significantly less likely to anticipate quitting than participants in the US and Canada ($p < 0.05$). The most common anticipated behavioural response was to buy more tobacco, less often (48.8%), followed by no change in purchasing (15.6%). Switching to online (4.8%) or illicit market (3.2%) was infrequently reported. Nicotine dependence (e.g., high aOR 3.73 [95% CI 1.53, 9.07] vs very low), recent purchase of illicitly traded tobacco (aOR 1.93 [95% CI 1.30, 2.85] vs no), having no or longer-term quit intentions (e.g., no intention aOR 6.43 [95% CI 3.78, 10.93], >6 months aOR 2.47 [95% CI 1.83, 3.34] vs within 6 months) and lower quitting self-efficacy (e.g., Not at all sure aOR 4.40 [95% CI 2.57, 7.53] vs extremely sure) were associated with a greater likelihood of continued smoking if travel time increased (all main effect $p < 0.01$).

Conclusions: Large decreases in tobacco retailer density are likely needed to substantially increase quitting. Additional measures may be needed alongside this policy to achieve a tobacco endgame, such as the repealed Aotearoa/New Zealand package that included multiple policies alongside a 90% reduction in the number of tobacco retailers.



Population Trends

11:15 - 12:00

Smoking and vaping among young people in England by age, gender, family smoking and family attitudes to smoking

N. Nwalema¹, A. Fullah¹, K. East¹, A. Memon¹¹Brighton and Sussex Medical School, United Kingdom

Background: The home is a significant environment in which smoking and vaping social norms are observed and adopted, through exposure to family use and attitudes. The study assesses (1) prevalence of young people's smoking and vaping and (2) associations with family smoking and family attitudes to smoking.

Methods: Data were from the 2023 Smoking, Drinking and Drugs Use Survey (n=14,475 young people aged 11-15). Adjusted binary logistic regression models assessed associations between age, gender, parental smoking, sibling smoking, familial attitudes to smoking, and smoking status or vaping status, with outcomes current smoking (i.e., smoking at least sometimes; Model 1) and current vaping (i.e., vaping at least sometimes; Model 2).

Results: Overall, 2.3% (n=330) of pupils currently smoked and 9.1% (n=1312) currently vaped. Pupils had higher odds of currently smoking if they currently vaped (aOR=79.2, 95% CI 47.9-130.9), were aged 14-15 (vs. 11-13; aOR=2.5, 1.6-3.9), of another gender identity (vs. boys; aOR=3.4, 1.6-7.3) or had a sibling that smokes (aOR=3.8, 2.4-6.1). Compared to families who try/would try to stop the pupil smoking, higher odds of smoking were seen in pupils who belonged to families who persuade/would persuade them to stop smoking (aOR=5.1, 3.2-8.0), do/would do nothing to stop them smoking (aOR=15.8, 8.4-29.6), or encourage/would encourage them to smoke (aOR=94.6, 37.0-241.9). Pupils had higher odds of currently vaping if they currently smoked (aOR=73.3, 44.4-121.1), were aged 14-15 (vs. 11-13; aOR=2.7, 2.2-3.2), identified as a girl (vs. boy; aOR=1.8, 1.5-2.2) or another gender identity (vs. boy; aOR=2.2, 1.4-3.4), had a parent (aOR=1.6, 1.3-2.0) or sibling that smokes (aOR=1.8, 1.4-2.3). Compared to families who try/would try to stop the pupil smoking, higher odds of smoking were seen in pupils who belonged to families who persuade/would persuade them to stop smoking (aOR=1.4, 1.1-1.7) or do/would do nothing to stop them smoking (aOR=3.4, 2.1-5.5).

Conclusions: Both smoking and vaping are more common among pupils with families who have more positive norms towards smoking. Family-based interventions targeting behaviours and attitudes may help to address young people's vaping and smoking behaviours.



Cigarillo Brand and Influencer Engagement on Social Media and Use Patterns Among Black and Latino Young Adults in the United States

C. Ntansah¹, J. Garmon¹, C. Fryer², M. Tomaino¹, A. Johnson¹, A. Altunbilek¹, A. Villanti¹, K. Sterling¹

¹Rutgers Institute for Nicotine and Tobacco Studies, United States

²Department of Behavioral and Community Health, University of Maryland, United States

BACKGROUND: Social media has emerged as a key channel for cigarillo brands and influencers to promote cigar products despite restrictions on tobacco advertising in traditional media. However, there is limited evidence on the specific influence of U.S. cigarillo marketing and whether social media engagement is associated with cigarillo use or the intensity of use among current users. This study examined how cigarillo social media engagement correlates with use patterns.

METHODS: Data were analyzed from Wave 1 of the C'RILLOS Cohort Study, a longitudinal study examining cigarillo use behaviors among young adults. Our sample included Black and Latino young adults aged 18–34 years (N=882). Social media engagement was defined as following a cigarillo brand or an influencer who posts cigarillo-related imagery in the past 12 months. Outcomes included past 30-day cigarillo use (yes/no) and the number of days cigarillos were smoked “as sold” in the past 30 days. Multivariable logistic regression models examined predictors of current cigarillo use, and linear regression models assessed predictors of use frequency. All models adjusted for income, education, sex, and past-30-day use of cigarettes, cigars, blunts, and alcohol.

RESULTS: Participants who followed cigarillo brands or influencers were more likely to be male, younger, and report concurrent use of cigarettes, blunts, and alcohol (all $p < 0.001$). In adjusted models, social media engagement was associated with higher odds of cigarillo use, however, this association was not statistically significant (OR=1.37, 95% CI: 0.82–2.28; $p=0.20$). In contrast, among current cigarillo users, social media engagement was significantly associated with use frequency. Adjusted models indicated that engaged users smoked cigarillos on an average of 4.9 more days per month compared with non-engaged users (95% CI: 3.4–6.5; $p < 0.001$). Alcohol use was also independently associated with greater use frequency ($\beta=3.4$ days, 95% CI: 1.9–4.9; $p < 0.001$).

CONCLUSIONS: Social media engagement was more strongly associated with cigarillo use intensity than with overall use prevalence, suggesting it may play a greater role in sustaining use among current users than in initiating use among non-users. The findings also identify alcohol use as an important contextual factor in cigarillo use frequency.



Prevalence and demographics of non-cigarette tobacco product use among adults who smoke and/or vape in England: Findings from the ITC 2024 England Survey

T. Thevanathasarma¹, K. East¹, G. T. Fong²

¹brighton and sussex medical school, United Kingdom

²university of Waterloo, United Kingdom

Background. Non-cigarette tobacco (e.g., cigars, cigarillos, shisha) is exempt from many regulations that apply to cigarettes (e.g., plain packaging, flavour bans, minimum pack size) and is taxed differently from cigarettes in England. Use has fluctuated over the past five years, but evidence on the demographic characteristics of people who use non-cigarette tobacco in England is limited.

Aims. This study aims to assess the prevalence and demographic correlates of non-cigarette tobacco product use among adults who currently or formerly smoke and/or vape in England.

Methods. Data were from the 2024 England arm of the International Tobacco Control Four Country Smoking and Vaping Survey, comprising 2,287 adults aged ≥ 18 who smoke and/or vape. Prevalence of past 30-day use of eight non-cigarette tobacco products was assessed, and associations with demographics were assessed using adjusted logistic regressions. Survey weights were used to increase representativeness.

Results. The most commonly used non-cigarette tobacco product was heated tobacco (6.8%) followed by snus (5.9%), cigars (5.2%), oral tobacco (5.2%), cigarillos (4.1%), shisha (2.3%), pipe (2.1%) and other products (1.2%). Use of all products was higher among people aged 18-24 than people aged 40-54 (AOR=1.9-6.7) or aged ≥ 55 (AOR=2.9-50.0) (all $p < .05$). Use of cigars (AOR=2.4) and pipes (AOR=2.2) were higher among men (both $p < .02$). Use of cigarillos, shisha, heated tobacco, and oral tobacco was higher among those of any Black or Asian (vs. white) ethnicity (AOR=1.9-4.9; all $p < .05$). Use of snus was higher among those of any Black (vs. white) ethnicity (AOR=4.1, $p < .001$). Use of cigars, pipe, shisha, heated tobacco, and snus were higher among those who were more educated (AOR=1.8-5.1, all $p < .02$). Overall, use of all non-cigarette tobacco products was higher among those that smoke daily compared to those who do not currently smoke (AOR=1.8-7.7; all $p < .03$).

Conclusions. In England, among adults who currently or formerly smoke and/or vape, use of non-cigarette tobacco products was generally higher among younger than older adults, men, those more educated, ethnic minorities, and those that smoke daily. Regulations and interventions to reduce the appeal and use of non-cigarette tobacco, particularly among these groups, are required.



Nicotine and tobacco product use among priority populations in New Zealand

R. Denlinger-Apte¹, O. Babalola¹, H. Beckerich¹, M. Chaiton², R. Haddadi³, E. Harwood¹, D. Hatsukami⁴, J. Koopmeiners⁴, G. Laking³, K. Li⁴, V. Parag³, J. Singer¹, N. Walker⁵, Z. Wang³, C. White¹, S. Tang³, C. Bullen³, E. Donny¹

¹Wake Forest University School of Medicine, United States

²University of Toronto, Canada

³University of Auckland, New Zealand

⁴University of Minnesota, United States

⁵Flinders University, Australia

Background: Despite the historic declines in smoking prevalence in New Zealand (NZ), tobacco-related inequities persist, the tobacco marketplace is rapidly evolving, and new tobacco control policies are being considered and/or enacted. In response to the dynamic landscape, we established a cohort of New Zealanders who smoke (CENIC-NZ) -- oversampling those with anxiety/depression, high alcohol/cannabis use, and/or lower educational attainment -- to assess nicotine and tobacco use. This information is needed to monitor current use patterns among priority populations, examine the impact of the evolving marketplace, and inform future tobacco control policies. Here, we present cross-sectional findings from Wave 1 of the study.

Methods: To qualify, participants had to be ≥ 18 years, living in New Zealand as a citizen or permanent resident, and smoking at least one day in the past month. Eligible participants were identified between October 2024-July 2025 via social media and completed the Wave 1 online survey in July 2025. Descriptive statistics summarized survey responses and we used chi-square tests, Fisher's exact tests, and t-tests to compare responses by priority population status.

Results: Overall, 494 of 710 (70%) CENIC-NZ cohort members responded to the survey, with 60% identifying as female, 24% as Māori ethnicity, 55% with household incomes $\leq$ NZD70,000 and a mean age of 46.6 (SD=14.4). When considering the three priority populations, 79% of respondents met ≥ 1 criterion. On average, respondents smoked 11.5 (SD 8.9) per day and had an FTND score of 4.2 (SD=1.8). For past 30-day use of other nicotine products, 42% reported e-cigarette use, 3% reported heated tobacco product use, 5% reported oral nicotine pouch use, and 7% reported nicotine replacement therapy use. When comparing use patterns, no differences were observed between priority and non-priority populations.

Conclusions: The CENIC-NZ Wave 1 data establishes a foundation for longitudinally examining nicotine and tobacco use among priority populations in NZ. Overall, current e-cigarette use was common, while use of novel nicotine products and medicinal nicotine was limited. Although use patterns did not differ between priority and non-priority populations, future survey waves are well positioned to assess changes over time and in response to marketplace or regulatory adaptations.



Predictive Tobacco Use Behaviors: An AI-Driven Approach Using the PATH Study Data

Z. Xie¹, D. Li¹, O. Luo¹

¹University of Rochester, United States

Introduction: With around 1.2 to 1.3 billion people use tobacco worldwide, tobacco kills over 7 million people annually. While traditional cigarette smoking rate have declined over the past two decades, the emergence and growing popularity of non-combustible products (e.g., e-cigarettes) and smokeless products (e.g., oral nicotine pouches), particularly among young people, present new public health challenge. Poly tobacco use further complicates this landscape.

Aims: This study aimed to develop predictive models for tobacco use behaviors and to identify key risk or protective factors using artificial intelligence techniques.

Methods: We utilized the adult dataset from the Population Assessment of Tobacco and Health (PATH) study. Tobacco and nicotine products were categorized into three types, including combustible, non-combustible, and smokeless. Using the PATH adult Wave 7 dataset, we developed several machine learning models - including logistic regression, random forest, and CatBoost models - to predict no use, single product use, and polyuse (using at least two product types). Additionally, for single product type users, similar models were built to predict specific combustible, non-combustible, and smokeless product use. Model validation was performed using the PATH adult Wave 7.5 dataset. Shapley Additive exPlanations (SHAP) values were employed to assess the contribution and direction of each predictor variable on different tobacco use behaviors.

Results: All predictive models for tobacco/nicotine use behaviors (no use, single use, and polyuse) demonstrated strong performance, with accuracy and the area under the precision-recall curve (AUPRC) exceeding 0.75. The CatBoost model consistently outperformed others, achieving an accuracy of 0.757 and an AUPRC of 0.794. For predicting specific single product types (combustible, non-combustible, and smokeless), the CatBoost model again showed superior performance, with an accuracy of 0.810 and an AUPRC of 0.881. SHAP value analysis revealed that important variables, such as harm perception of different products and their home rules, significantly influenced tobacco/nicotine use behaviors.

Conclusions: We successfully developed several machine learning models capable of predicting diverse tobacco/nicotine product use behaviors, including no use, single use (categorized by product type), and polyuse. Our findings highlight the significant role of various factors in shaping these behaviors, providing valuable insights for targeted public health interventions.



A Nationally Representative Repeated Cross-Sectional Study of 10-year Substance Use Trends among Culturally and Linguistically Diverse Australians

Y.Y. Lee^{1,2}, T. Sun³, J. Connor³, C. Gartner⁴, G. Lai⁴, H. Akbar⁵, C. Lim^{3,4}

¹National Centre for Youth Substance Use Research, The University of Queensland, Australia

²NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame, Australia

³National Centre for Youth Substance Use Research, School of Psychology, The University of Queensland, Australia

⁴NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame, School of Public Health, Australia

⁵School of Public Health, The University of Queensland, Australia

Background: Substance use prevalence often differ between culturally and linguistically diverse (CALD) and non-CALD populations in Australia, influenced by stigma, access to services, and acculturation. Despite Australia's growing multicultural population, limited studies compared patterns of use between both groups. **Aim:** To examine the change in prevalence of substance use in the last decade among CALD and non-CALD populations using nationally representative dataset.

Methods: Data came from Australia's National Drug Strategy Household Survey, a triennial nationally representative survey that collects information on alcohol, tobacco, and illicit drug use from general population aged 12+. This study used four waves of data (2013: n = 23,855; 2016: n = 23,749; 2019: n = 22,015; 2022/23: n = 21,663). CALD variable was derived using respondent's self-reported country of birth and main language spoken at home. Recent use (past 12-month) prevalence of different substances were assessed across subgroups according to participants' CALD status.

Results: Both CALD and non-CALD groups observed declined prevalences for most substances, except for roll-your-own cigarette and e-cigarettes. Among CALD participants, prevalences remain unchanged for roll-your-own cigarettes (absolute change: -0.8%, 99.0% CI=-2.0%, 0.3%). In comparison, among non-CALD participants, there was a decline in prevalence in roll-your-own cigarettes (-2.2%, 99.0% CI=-3.0%, -1.4%). Also, while both CALD and non-CALD groups see a significant increase in the prevalence of e-cigarette use, CALD individuals appear to experience a faster rate of change of 500.0% increase (3.9%, 99% CI=2.7%, 5.2%) compared to non-CALD individuals at the rate of 476.9% (6.3%, 99% CI=5.5%, 7.0%). CALD groups have lower prevalences for risky alcohol use and illicit drug use compared to non-CALD groups, and the prevalences decreased over the decade or remain unchanged.

Conclusion: Despite the prevalence of most tobacco products and e-cigarette use are lower among CALD groups compared to non-CALD groups, the unchanged prevalence among CALD groups amidst the decrease among their non-CALD counterparts draws attention to the effectiveness of existing anti-tobacco and anti-vaping campaigns that are mostly targeted for the general Australian population. Culturally tailored interventions are recommended to address these ongoing smoking and vaping behaviours to reduce these product use and their harms.



US Adults' Shift Away from Exclusive Smoking: Quarterly Trends in Tobacco/Nicotine Use Behaviors and Estimated Reduction in Population-Level Exposure, 2014-2024

S. Kim¹, A. Selya¹, R. Niaura²

¹PinneyAssociates, United States

²New York University, United States

Background: Surveillance of nicotine/tobacco use typically examines binary use of each product, failing to capture subtypes of multi-product use.

Aims: Examine more granular trends in 1) the use of electronic nicotine delivery systems (ENDS) and/or cigarettes and 2) in a weighted exposure index among representative US adults.

Methods: Quarterly trends in cigarette/ENDS use from the US National Health Interview Survey (NHIS) 2014-2024 were examined. Nine combinations of smoking/vaping status were defined using self-reported frequency (every day, some days, not at all). The exposure index was constructed by applying a range of product- and frequency-specific weights proportionate to the toxicant exposure of each behavior (e.g., vaping: 5-50% of smoking; nondaily use: 40-80% of daily) to their prevalence, summed per quarter and standardized to 2014 Q1. Trends were analyzed overall and by age groups (18-29, 30-44, 45-59, ≥60).

Results: Use of either product declined modestly (18% in 2014 Q1 to 16% in 2024 Q4), suggesting a stable population of nicotine users. Among users, exclusive smoking decreased substantially (80% to 50%), largely offset by a pronounced increase in exclusive vaping (5% to 40%). Dual use showed an initial decline and subsequent increase but overall remained low (~10%). Assuming 20% exposure for vaping (vs. smoking) and 70% for nondaily use (vs. daily), the exposure index declined by 36% over this period. Age significantly moderated these trends' magnitude: adults aged 18-29 exhibited the steepest decline in exclusive smoking (73% to 7%) and exposure index (65% reduction), followed by adults aged 30-44 (78% to 47%; 30% reduction) and 45-59 (84% to 72%; 31% reduction). Among adults ≥60, exclusive smoking remained the predominant behavior (86% to 85%); however, the exposure index decreased by 14%, partially driven by the decline in dual use (10% to 6%). Findings were robust across varying assumptions for vaping and nondaily use.

Conclusion: US adults largely shifted away from exclusive smoking to exclusive vaping, in addition to a slight decrease in the overall rate of nicotine/tobacco product use. Consequently, the weighted exposure index declined substantially, with net population impact to be clarified with counterfactual evaluation. These trends were especially pronounced among younger adults.



Prevalence and correlates of smoking and vaping among 11–15-year-old school pupils in England

A. Fullah¹, N. Nwalema¹, K. East¹, A. Memon¹

¹Brighton and Sussex Medical School, United Kingdom

Background: In recent years, the prevalence of tobacco smoking among young people in England has declined to record low level, whereas vaping has risen. Understanding which groups of young people are smoking and vaping is important because it can inform targeted school-based prevention and cessation support.

Aims: To determine the prevalence and correlates of smoking and vaping among 11-15-year-old school pupils in England.

Methods: We analysed data from the Smoking, Drinking and Drugs Use among Young People in England, 2023 survey (n=12,657). Adjusted logistic regression (adjusted Odds Ratio [aOR], 95% Confidence Interval, [95% CI]) estimated associations between current smoking or vaping and gender, ethnicity, geographical region, and life satisfaction.

Results: The prevalence of smoking and vaping was 2.4% (n=231) and 9.1% (n=1,024), respectively. Dual use was common: 89.2% of pupils currently smoking also vaped (aOR 117.6, 95% CI 75.6–182.9) and 20.1% of those who vaped also smoked (aOR 114.7, 74.1–177.6). For smoking, pupils identifying as another gender identity (vs. boys) had higher odds (aOR 3.9, 2.1–7.1), whereas girls did not differ significantly from boys after adjustment. There were few other demographic differences in smoking, except for those who identified as other ethnicity (vs. Asian) had higher odds (aOR 5.1, 1.5–17.2). For vaping, compared to boys, girls (aOR 1.6, 1.4–1.9) and pupils who identified as another gender identity (aOR 1.7, 1.1–2.5) had higher odds, as well as White (vs. Asian) pupils (aOR 2.5, 1.9–3.5). There were also regional differences in both smoking and vaping, with smoking being highest in the South East, East of England, and South West (vs. East Midlands; ranging aOR=2.9–3.9) and for current vaping highest in the South West, North East, and Yorkshire & Humber (vs. London; ranging aOR=1.5–1.8). Low life satisfaction was higher among those who currently vaped (37.1%) vs. not (16.7%) (aOR 0.4, 0.3–0.5), but smoking was not associated with life satisfaction in adjusted analyses.

Conclusions: Regional and demographic inequalities in smoking and vaping were identified, and lower life satisfaction was associated with current vaping. Targeted school-based prevention efforts should address both vaping and smoking together, focusing on high-risk groups, and impact on mental health.

