

# EUROPEAN CONFERENCE ON TOBACCO OR HEALTH

MILAN, MAY 20<sup>TH</sup>-22<sup>ND</sup> 2026

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NICOTINE FREE  
SPACES FOR  
HEALTHIER CITIES.

ABSTRACT  
BOOK TOBACCO  
PREVENTION  
AND CESSATION

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## Aim & Scope

Tobacco Prevention & Cessation, (Abbr: Tob. Prev. Cessation; ISSN: 2459-3087) is an open access, peer-reviewed online journal that encompasses all aspects of tobacco use, prevention and cessation. The aim of the journal is to foster, promote and disseminate research involving tobacco use, prevention, policy implementation at a regional, national or international level and finally the treatment of tobacco attributable disease through smoking cessation. Indexed in PubMed, Scopus and the Web of Science Emerging Sources Citation Index (Impact factor 2.2).

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## Welcome to the 10<sup>th</sup> European Conference on Tobacco or Health

We are excited to invite you to the 10th European Conference on Tobacco or Health (ECToH) in Milan, Italy, in 2026. This milestone edition marks a decade of progress in the fight against tobacco and nicotine and will focus on how we can create healthier cities across Europe.

ECToH Milan 2026 – “Nicotine-Free Spaces for Healthier Cities” – reflects a critical vision for the future. In the coming years, our cities must become more than just places to live — they must be environments that actively promote health, well-being, and sustainability. To achieve this, we must clear our urban spaces of tobacco, nicotine, and all emerging products — from schools and parks to streets and public transport hubs.

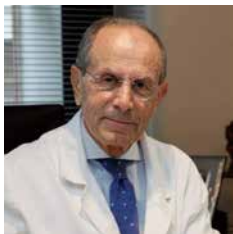
To build healthier cities, we must focus on creating smoke- and nicotine-free environments — areas with clean air, accessible green spaces, and urban spaces that prioritize health for all, especially vulnerable populations. By removing harmful products and centering health in urban planning, we can foster cities that improve both physical and mental well-being.

This goal aligns with the WHO Framework Convention on Tobacco Control (FCTC), which urges countries to implement effective measures to protect people from exposure to tobacco smoke in public places. It also supports the European Union’s target, set in Europe’s Beating Cancer Plan, of achieving a Tobacco-Free Generation by 2040.

Yet, this vision is threatened by the tobacco industry’s growing narrative of a “smoke-free future.” While this message may appear aligned with public health, it is in fact a strategic illusion. By promoting new nicotine products under the guise of harm reduction, Big Tobacco is rebranding itself as part of the solution, while continuing to fuel addiction and obstruct tobacco control efforts.

At ECToH 2026, we will explore how we can work together to create cities that are not only free from tobacco and smoke, but also from nicotine and aerosols — and that fully embrace sustainable, health-promoting environments for everyone.

Join us in Milan for ECToH 2026, as we take a bold step towards healthier Cities in Europe.



Prof. Francesco Schittulli  
President LILT



Prof. Marco Alloisio  
President LILT  
Milan



Dr. Juna Pekka Turunen  
President European  
Cancer Leagues,  
General Secretary  
of Cancer Society of  
Finland

## Welcome from the ECToH Milan 2026 Scientific Committee

Dear Colleagues,

Tobacco and nicotine use remain the leading causes of preventable disease and death in Europe and across the world. Despite overwhelming scientific evidence linking tobacco and nicotine consumption to cancer, cardiovascular disease, respiratory illness, and a long list of other diseases and disabilities, we are still far from ending the tobacco epidemic. Yet, progress in tobacco control remains too slow. Inaction — or insufficient action — in the face of such clear harm is no longer acceptable.

Adding to this danger is the growing influence of Big Tobacco’s narrative of a “smoke-free future”. By promoting alternative tobacco and nicotine products under the guise of harm reduction, the industry is rebranding itself as part of the solution, while continuing to drive addiction and undermine tobacco control efforts. This narrative risks deeply confusing the public, especially young people, who may begin to believe that the industry genuinely supports healthier cities and a healthier world.

That is why the 10th European Conference on Tobacco or Health (ECToH) comes at a crucial moment. Not only does this edition mark a significant milestone in the history of ECToH, but it also presents a unique opportunity to align tobacco control with a broader vision of health and sustainability: Nicotine-Free Spaces for Healthier Cities. Tobacco and nicotine have no place in the cities we want for future generations. Cleaner air, more green spaces, and public environments free from harmful substances are essential to achieving the WHO’s One Health approach, protecting people from tobacco smoke and the influence of the tobacco industry.

As the European Union aims for a Tobacco Endgame by 2040, defined as less than 5% of the population using tobacco, this conference is more than a scientific event: it is a collective commitment to act. At ECToH Milan 2026, we will reflect, exchange, and innovate together. We will discuss how to improve communication in a digital world, how to counter the evolving tactics of the tobacco industry, and how to design urban policies that promote clean, equitable, and healthy spaces for all. We invite you to join us in Milan to share your knowledge, challenge old paradigms, and help shape a healthier Europe.



Dr. Silvano Gallus  
Chair of the ECToH Milan 2026  
Scientific Committee

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## ORAL PRESENTATION

### Advocacy and Civil Society Engagement OP37

#### The new public health index – Assessing public health policies in Europe

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#### BACKGROUND-AIM

Tobacco and alcohol use as well as poor diet and physical inactivity are causing a significant proportion of the non-communicable disease (NCD) burden in Germany and worldwide. The aim of this project was to develop an overarching Public Health Index (PHI) that can be used to assess and internationally compare the implementation status of key evidence-based measures to address these four risk factors. The PHI is intended to serve as a means of identifying shortcomings and potential for improvement in NCD prevention policies at country level. The PHI is to be used for advocating for tobacco control and other NCD prevention policies. While this study focuses on Germany in comparison to other European countries, this approach can serve as a blueprint for adaptations to other countries.

#### METHODS

The PHI is made up by four sub-indices. Existing indices were used for tobacco (Tobacco Control Scale) and alcohol (Bridging the Gap – Modified). For diet and physical activity new indices were developed. The results for the four areas of action – tobacco, alcohol, diet and physical activity – are combined in an overarching index. All areas contribute equally to the overall assessment. The index was applied to 18 European countries.

#### RESULTS

Germany ranks second last of the surveyed countries for the overarching index. For tobacco control Germany is on rank 17 out of 18, for alcohol prevention on rank 16 and for diet it ranks on the last place together with Austria, Luxembourg and Switzerland. In terms of facilitating physical activity, Germany ranks 10th out of 18 countries, together with Austria. Overall, the German speaking countries Austria, Luxembourg, Germany and Switzerland are the lowest ranking countries, whereas UK, Finland and Ireland are leading in NCD prevention policies.

#### CONCLUSIONS

Germany lags behind in tobacco control as well as in other areas of NCD prevention. Best practices identified for effective tobacco

control in particular and public health policies in general are strong political commitment, a health-in-all policies approach and broad involvement of civil society. Importantly, effective prevention policies are hampered by political interference of the industries concerned. Decisive political action is needed to overcome these shortcomings.

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### Artificial Intelligence and Digital Tools OP25

#### The role of personality-tailored messages in digital health interventions: Using machine learning to optimize anti-tobacco campaigns

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#### BACKGROUND-AIM

Anti-tobacco communication campaigns are among the most acceptable and effective interventions for promoting smoking cessation. However, these campaigns often rely on broad targeting strategies that overlook individual characteristics, potentially limiting their impact. Tailoring messages to personality traits (which reflect stable, individualized patterns of cognitive reactivity: Extraversion, Neuroticism, Conscientiousness, Agreeableness, Openness) may enhance effectiveness and is now possible at scale thanks to digital tools. This study investigates which content features influence smoking cessation intention, and how this differs according to smokers' personality profiles.

#### METHODS

A total of 2,622 smokers completed the IPIP-NEO-120, a validated questionnaire describing personality through five dimensions, and were randomly exposed to three anti-smoking video advertisements selected from a pool of 38. The advertisements were coded using a taxonomy of 19 content features, reflecting the persuasive argument employed by the advertisements. After each exposure, participants rated the change in their intention to quit smoking. LASSO regressions, a machine learning method for variable selection and regularization, were used to identify significant interaction effects between personality traits and content features influencing smoking cessation intention.

#### RESULTS

Extraversion (assertive and sociable trait) and Neuroticism (trait involving tension, insecurity, and anxiety) emerged as key moderators of message effectiveness, with specific content features amplifying or reducing cessation intention depending on these traits. Negative consequences of tobacco use (health dangers, dying, getting sick) were among the most powerful arguments to shift smoking cessation intention across all personality profiles. For each personality trait, specific interactions with content features were observed, either enhancing or reducing message impact on smoking cessation intention. For example, smokers scoring high on Conscientiousness (being hardworking, dedicated, and organized) or Agreeableness (likely to show affection and sympathy in social situations) were most influenced to stop smoking by messages showing people getting sick or injured than

smokers scoring high in Extraversion.

#### CONCLUSIONS

By highlighting the moderating role of personality on message effectiveness and its relations to specific content features, this study provides valuable insights for designing personality-tailored interventions. Our results pave the way for real-time adaptive messaging in digital tools, where content can dynamically be adjusted to individual profiles, enhancing the precision and effectiveness of digital health campaigns. Tobacco endgame, Strategies and policies to permanently end the tobacco epidemic.

**Tob. Prev. Cessation 2026;12(Supplement 1):A2**

## Artificial Intelligence and Digital Tools

### OP31

#### Designing retrieval augmented generative artificial intelligence applications in tobacco control: Lessons learned during ectc25

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#### BACKGROUND-AIM

Retrieval-Augmented Generation (RAG) Artificial Intelligence is a method used to increase the accuracy of Large Language Models (LLMs) and reduce hallucinations. RAG AI is built by fine-tuning foundational LLMs, using trusted data sources rather than relying solely on the data used to train the LLM. This paper aims to describe the development of a RAG AI Notebook designed to help youth gain knowledge and skills in identifying tobacco industry tactics and understanding health communication methods in tobacco control.

#### METHODS

Using Google NotebookLM, we developed a RAG AI system to create a chatbot, along with visual and audio materials, for participants of a workshop dedicated to tobacco industry interference and youth advocacy. This workshop was organized as a youth-focused event during the European Conference on Tobacco Control 2025 (ENSP ECTC 2025). This paper describes the development and implementation of the RAG AI.

#### RESULTS

Two in-person workshops were designed for young advocates and researchers at ENSP ECTC 2025. The first workshop, led by the Institute of Economic Sciences from Belgrade, covered tobacco industry tactics to interfere with tobacco taxation. The second workshop, led by the youth group of the European Network for Smoking and Tobacco Prevention (ENSPNext) and the National Initiative of Non-Smokers from Serbia (NINS), covered best practices in tobacco control advocacy. The AI Notebook was developed through a four-step process. First, digital resources available for fine-tuning the LLM were selected based on following criteria: quality, relevance, and copyright regulations. Resources included: Framework Convention on Tobacco Control, Policy Papers, Health communication guidelines, etc. Second, the RAG AI Chatbot was tested by simulating user scenarios of increasing complexity, such as asking for information not present in the

training resources, requesting simple facts present in training resources, and requesting complex information synthesized from multiple training resources. Third, the chatbot was personalized to user needs regarding language, answer length, and structure. The "learning guide" template by NotebookLM was chosen. Finally, explainer videos, podcasts, interactive mind maps, and quizzes were generated based on the selected digital resources to guide users in utilizing the AI chatbot for detailed study.

#### CONCLUSIONS

The integration of RAG AI technology into tobacco control training has great potential for empowering youth advocates and researchers in this field. By fine-tuning LLMs using verified legal and scientific documents, we successfully created a reliable, interactive tool that lowers the risk of hallucinations by AI and allows for AI generated materials to be tailored specifically to the provided training resources. Future research and implementation should focus on upscaling such RAG AI systems for application in tobacco control educational campaigns and providing tailored messages for smoking cessation based on scientific evidence.

**Tob. Prev. Cessation 2026;12(Supplement 1):A3**

## Emerging Nicotine Products

### OP10

#### Public support for banning flavoured e-cigarettes in the European Union: A repeated cross-sectional study using Eurobarometer data from 2017 and 2023

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#### BACKGROUND-AIM

E-cigarettes have rapidly gained popularity across the European Union (EU), particularly among youth. Sweet flavours enhance their appeal and reduce the perceived harm associated with their use. Flavour bans have emerged as a central policy tool to protect children and young people from the harms of e-cigarettes by reducing their attractiveness to new users. Understanding public support for banning flavoured e-cigarettes is key to informing advocacy efforts related to this policy. This study assessed trends in support for a flavour ban and identified determinants of support across the EU between 2017 and 2023.

#### METHODS

A repeated cross-sectional analysis was conducted using data from the Special Eurobarometer surveys in 2017 and 2023 (n=25,439; n=25,356). Two-level mixed-effects Poisson models estimated adjusted prevalence ratios (A(;)aPRs) with 95% Confidence

Intervals (CIs), accounting for individuals nested within countries. Individual-level variables included sociodemographic characteristics (sex, age, education, income, living area) and smoking and e-cigarette status. Country-level variables included tobacco control policy implementation (measured using the Tobacco Control Scale [TCS]) and gross domestic product (GDP) per capita.

#### RESULTS

Overall, support increased modestly from 40.4% (95% CI: 39.3%–41.3%) in 2017 to 49.3% (95% CI: 48.6%–50.0%) in 2023 (aPR=1.06, 95% CI: 1.00–1.12). Country differences in support widened over time, with the estimated between-country variance increasing from 0.15 (95% CI: 0.09–0.26) in 2017 to 0.19 (95% CI: 0.11–0.33) in 2023. Current (aPR=0.43, 95% CI: 0.37–0.50) and former e-cigarette users (aPR=0.78, 95% CI: 0.75–0.83), as well as current (aPR=0.69, 95% CI: 0.67–0.72) and former smokers (aPR=0.93, 95% CI: 0.90–0.96) were less supportive than never users. Support was higher among women (aPR=1.05, 95% CI: 1.02–1.08) and adults aged  $\geq 55$  years (aPR=1.07, 95% CI: 1.03–1.11), and lower among those aged 15–24 years (aPR=0.89, 95% CI: 0.82–0.96). Higher TCS scores were associated with greater support (aPR=1.09 per 10-point increase, 95% CI: 1.04–1.14), whereas GDP per capita showed no statistically significant association.

#### CONCLUSIONS

Public support for banning flavoured e-cigarettes is increasing across the EU, signalling readiness for stronger regulatory action. However, lower support among younger adults and e-cigarette or tobacco users highlights persistent resistance among those most engaged in use, underscoring the need for targeted communication and youth-focused

**Tob. Prev. Cessation 2026;12(Supplement 1):A4**

### Emerging Nicotine Products

#### OP15

#### Impact of new tobacco products on smoking prevalence in Italy: A double-intervention interrupted time series analysis (passi 2008–2023)

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#### BACKGROUND-AIM

Tobacco smoke is a major risk factor to noncommunicable disease (NCD) and its role is under study in the Joint Action PreventNCD. This study assessed the impact of new tobacco and nicotine products, i.e., electronic cigarettes (e-cig) and heated tobacco products (HTP), on smoking prevalence in the adult population residing in Italy.

#### METHODS

Istituto Superiore di Sanità (ISS) uses behavioral surveillance systems for monitoring purposes in PreventNCD. PASSI surveillance system data 2008-2023 amount 532115 interviews on adults (aged 18-69) residing in Italy. From the weighted

monthly series on smokers' prevalence, interrupted time series (ITS) were analysed, with generalized least squares, accounting for autocorrelation (ARMA matrix). January 2014 (introduction of e-cig in data collection) was used as "first-interruption" month, and January 2018 (introduction of HTP) as "second-interruption" month. The analysis shows the difference between what occurred after the intervention and expected outcome in the hypothesis of no intervention. The exclusive or combined use of the three products was also evaluated.

#### RESULTS

Cigarettes smokers trend decreased from 30% to 24%, but the ITS analysis shows how the introduction of new tobacco and nicotine products and consuming shift, mostly combined, interrupted the declining trend in cigarettes use in Italy. There is no reduction in the total amount of nicotine addict or tobacco users: since PASSI started investigating new electronic devices, we observe a constant decrease in the number of exclusive traditional cigarettes users (from 25% in 2014 to 20% in 2023), in favor of an increase in both traditional cigarettes and electronic devices (from 1.5% in 2014 to 4.4% in 2023) users. Exclusive electronic devices users also slowly increased, from 0.4% in 2014 to 3.3% in 2023.

#### CONCLUSIONS

Exclusive use of cigarettes decreased as combined use with e-cig increased; exclusive use of electronic devices slowly increased. Combined use of traditional cigarettes and electronic devices represents a challenge for public health, as it increases health risks caused by exposure to higher nicotine and harmful chemicals levels.

**Tob. Prev. Cessation 2026;12(Supplement 1):A5**

### Emerging Nicotine Products

#### OP16

#### Cooling compounds in tobacco products before and after ban

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#### BACKGROUND-AIM

Menthol is frequently added to tobacco and nicotine products (TNP) such as cigarettes, e-cigarettes, and heated tobacco products (HTP). Menthol facilitates inhalation by reducing irritation and coughing from nicotine and other emission components, leading to its ban in various TNPs under the European Tobacco Products Directive (TPD). To clarify TPD Article 7.6, several countries created (non-restrictive) lists of compounds that facilitate inhalation or nicotine uptake. In the Netherlands, the non-restrictive list under TPD Article 7.6 was adopted as Regulation in 2024, with enforcement starting April 1, 2025.

#### METHODS

In April 2025, the Netherlands Food and Consumer Product Safety Agency (NVWA) collected samples of 25 various suspected cigarettes and 15 HTP sticks to analyze for the presence of cooling substances. Thirteen cigarette samples from before the ban (2024 and early 2025) and six HTP stick samples from before the ban (2021 and 2024) were matched by brand variety and were

analyzed for cooling compounds, allowing us to compare the same products before and after April 1st, 2025. Chemical analyses were performed using gas-chromatography-mass spectrometry (GC-MS). The analysis focused on substances from a list frequently registered cooling agents in the European Common Entry Gate (EU-CEG) such as menthol and synthetic cooling agents e.g. WS-3 and WS-23. EU-CEG is a system in which manufacturers must register TPD products in Member States where they plan to market these products.

#### RESULTS

After April 1st 2025 few investigated cigarettes and HTP sticks contained cooling substances. Only one investigated cigarette brand variety contained the synthetic cooling substance WS-23 and no other cooling substances were detected. Before the ban, almost all investigated brand varieties of HTP sticks contained menthol and some contained menthone and isopulegol; after the ban, only few brands contained menthol and menthone. Notably, menthol and menthone in HTP sticks were found at concentrations 1.5–4 times higher in the filter than in the tobacco. Frequently, cooling substances were not registered in EU-CEG, while chemical analysis showed presence of these substances in both low and high levels in the investigated products.

#### CONCLUSIONS

Clarification of TPD Article 7.6 through non-restrictive lists seems to have resulted in fewer cooling substances in investigated tobacco products. Nonetheless, after the ban, some products still contained cooling substances. Products with cooling substances frequently showed discrepancies compared to EU-CEG data, highlighting the added value of chemical analysis. This information is relevant for jurisdictions with non-restrictive lists or those planning similar legislation or enforcement.

**Tob. Prev. Cessation 2026;12(Supplement 1):A6**

## Emerging Nicotine Products

### OP18

#### Combustible tobacco and emerging nicotine-containing product use among older adults in the European Union: Findings from Eurobarometer 2023

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#### BACKGROUND-AIM

Combustible tobacco remains a major health concern in the European Union (EU), while emerging nicotine-containing products such as e-cigarettes and heated tobacco products (HTPs)

have become increasingly popular. Yet most evidence focuses on younger populations, with limited attention to older adults, who face higher risks of tobacco-related disease and reduced life expectancy and quality of life with continued use. Given the EU's ageing population, evidence on tobacco and nicotine use in later life is needed to inform policy and practice. This study examines prevalence and sociodemographic correlates of tobacco and nicotine use among adults aged  $\geq 65$  years in the EU.

#### METHODS

We analysed data for 7651 participants aged  $\geq 65$  years from Special Eurobarometer 99.3 (May–June 2023) collected across 27 EU Member States (MS). We estimated the weighted prevalence of current use (at least weekly) of the following: combustible tobacco (boxed cigarettes, hand-rolled cigarettes, cigarillos, cigars, pipe tobacco, or waterpipe tobacco); non-combustible nicotine-containing products (e-cigarettes, HTPs, nicotine pouches, oral tobacco, chewing tobacco, or nasal tobacco); any nicotine-containing product; and dual use. Multilevel Poisson regression models examined associations between sociodemographic factors and tobacco and nicotine use.

#### RESULTS

Among adults aged  $\geq 65$  years in the EU, 12.0% (95% confidence interval [CI]: 10.9–13.2) reported current daily or weekly use of combustible tobacco and 12.6% (11.5–13.9) reported using any nicotine-containing product. Use of non-combustible nicotine-containing products (1.2%, 0.8–1.6) and dual use (0.5%, 0.3–0.8) were low overall. However, the prevalence of use varied significantly across the 27 EUMS. Combustible tobacco use ranged from 8.0% (5.8–10.9) in Sweden to 23.2% (18.3–29.0) in Greece. For non-combustible products, prevalence was highest in Sweden (7.7%, 5.6–10.5), and six MS reported no current use. Women and increasing age were associated with a lower likelihood of tobacco or nicotine-containing product use. Reporting financial difficulties was associated with a higher likelihood of use—combustible products (Prevalence Ratio [PR]=1.24, 95% CI: 1.05–1.45), any nicotine-containing product (PR=1.19, 1.03–1.38), and dual use (PR=3.04, 1.45–6.36). No consistent association was observed for education overall; however, those who completed education after age 20 were more likely to be dual users than those who finished at ages 0–15 years (PR=3.61, 1.15–11.35).

#### CONCLUSIONS

Combustible tobacco remains the predominant form of nicotine use among older adults in the EU, with minimal uptake of emerging products. Marked cross-country variation likely reflects differences in legislation, enforcement and socio-cultural context. To support the EU's healthy ageing agenda, EU-wide efforts should also prioritise older adults by widening access to age-appropriate cessation support and addressing affordability.

**Tob. Prev. Cessation 2026;12(Supplement 1):A7**

## Emerging Nicotine Products

### OP19

#### Nicotine sticks for use in heated tobacco product devices: Marketing, content, emissions and regulatory approaches

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#### BACKGROUND-AIM

Nicotine heatsticks without tobacco have become available in many markets worldwide, and their sales are growing rapidly. These sticks closely resemble tobacco heatsticks and are used with the same heating devices. They typically contain nicotine, flavorings, humectants, and carrier materials such as cellulose or tea leaves. When heated, they release nicotine and flavorings, which are inhaled by the user. As nicotine is harmful to health, the Dutch government aims to introduce product standards, such as a maximum limit on the amount of nicotine they are allowed to release. This study assessed whether levels of nicotine and its structural analogue 6-methylnicotine (6-MN) in nicotine stick emissions exceed health based advisory values. 6-MN has previously been used in the Netherlands as a replacement for nicotine in oral nicotine pouches.

#### METHODS

Advisory values for both local and systemic health effects have been derived for nicotine and 6 MN in nicotine stick emissions. Below these values, no health effects related to nicotine or 6-MN are to be expected for their users. For laboratory measurement, two variants from two major brands were selected. Sticks were cut open and filler and filter were extracted with a methanol-acetonitrile solution to determine nicotine and 6-MN levels in their content, following WHO TobLabNet SOP 15. Using the corresponding heating devices, emissions were generated with an automated smoking machine protocol based on WHO TobLabNet SOP 01, Intense regime. The stick extracts and emission extracts were analyzed for nicotine and 6-MN according to WHO TobLabNet SOP 16 with GC-MS.

#### RESULTS

Sticks are marketed containing nicotine, in carefully designed packages and with several flavors including fruit and menthol. The sticks contained 3.2-3.8 mg nicotine, and their emissions 0.7 1.0 mg nicotine per stick; 6-MN was not found. The advisory values were defined as 0.028 mg nicotine per stick and 0.0030 mg 6-MN per stick. The maximum concentration in emissions without expected adverse effects is 0.07 mg/L of emission for nicotine and 0.025 mg/L of emission for 6-MN.

#### CONCLUSIONS

The amount of nicotine in emission of nicotine sticks exceed the advisory values by 18-25 times. These sticks would no longer be allowed when the advisory values are implemented in the Dutch Tobacco and Smoking Products Act. The values will apply to all nicotine products intended for inhalation not covered by the EU Tobacco Products Directive.

**Tob. Prev. Cessation 2026;12(Supplement 1):A8**

### Emerging Nicotine Products

#### OP20

#### Who are the young users of oral nicotine pouches; Those already smoking cigarettes – or a new group of nicotine addicts?

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#### BACKGROUND-AIM

Oral nicotine pouches are entering the market rapidly, hence possibly establishing changed and new use patterns. Often, they are marketed by the industry as smokeless and tobacco-free alternatives to cigarettes which can be used almost anywhere. Additionally, they are small, easy to hide, and don't smell. However, they often contain high amounts of nicotine, with the risk of young people becoming addicted to nicotine. The aim of this study is to gain knowledge on users and user patterns by comparing characteristics and use behavior among; 1) those using either oral nicotine pouches or cigarettes, exclusively, and 2) exclusive users compared to dual users.

#### METHODS

Data were from the §SMOKE study; a nationally representative cross-sectional survey with around 10,000 participants conducted in 2024 among Danish 15-29-year-olds (participation rate 27.8%). The analytical sample included 2,413 youth currently (daily/occasionally) using either nicotine pouches, cigarettes, or both. Use behavior included frequency of use, initiation age, self-perceived addiction, reasons to use, health concerns, use in weekdays and/or weekends and during school hours. We applied logistic regression models adjusted for age and gender to compare exclusive nicotine pouch users with exclusive cigarette users, and to compare exclusive user groups with dual users.

#### RESULTS

Overall, 28.6 % used only nicotine pouches, 58.4 % used only cigarettes and 13.0 % used both products. When comparing exclusive nicotine pouch users with exclusive cigarette users, we found that the former were less likely to be female (OR: 0.70), more likely to be 18-24 year old (OR: 1.81), debuting after age 18 (vs. earlier) (OR: 3.30), perceiving themselves as notably addicted (vs. less addicted) (OR: 4.33), always using pouches in school (OR: 4.26), and using both in weekdays and weekends (OR: 2.44). Those only using nicotine pouches had higher odds of reporting 'due to dependence' (OR: 2.85), 'to feel good/high' (OR: 1.60), 'to quit other products' (OR: 3.96) and lower odds of reporting 'friends are doing it' (OR: 0.30) as reasons for use compared to those only using cigarettes. Dual users were less often female and in age group 25-29 years compared to exclusive users of both products. Further, they perceived themselves as less addicted to cigarettes than exclusive cigarette users and they were less likely to use cigarettes on both weekends and weekdays than exclusive cigarette users.

#### CONCLUSIONS

We observed a clear difference in use behavior among those using only nicotine pouches, cigarettes or both. Boys more often use the products exclusively or in combination. The findings support the incessant nature of nicotine pouch use, i.e., used during school hours. Furthermore, perceived addiction is markedly higher among nicotine pouch users, which – combined with the high nicotine content - pose a serious threat to adolescents' health.

**Tob. Prev. Cessation 2026;12(Supplement 1):A9**

### Emerging Nicotine Products

#### OP22

#### Overview of emerging nicotine product use by teenagers and a comparison with smoking and e-cigarette use

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#### BACKGROUND-AIM

The nicotine landscape is undergoing a period of rapid development. In this study we examine the emerging situation among Irish teenagers regarding traditional and newer nicotine products - cigarettes, e-cigarettes, nicotine pouches, water pipe (shisha), moist snuff (snus), and heated tobacco products. We describe prevalence, availability/perceived access, age of first use, and early initiation (13 years or younger).

#### METHODS

We use data from a nationally representative stratified random sample of (n=5587) 15-18 year olds in Ireland, collected online in 2024 (ESPAD protocol). Respondents were asked if they had ever used any of the listed products and, if yes, whether they had done so in the previous 30 days (current use). Perceived availability was measured by the question: How difficult do you think it would be for you to access (the following products) if you wanted? Cigarettes, e-cigarettes (vapes, mods) and alternative smoking products (nicotine pouches, water pipe (shisha), snus, heated tobacco products). There were 6 answer categories: Impossible, Very difficult, Fairly difficult, Fairly easy, Very easy, Don't know. Age of initiation assessed the age respondents first reported using 4 products ranging from 9 to 16 years of age or older.

#### RESULTS

Prevalence of ever and current smoking (31.2%, 14.2%), e-cigarettes (39.3%, 20.6%), water pipes/shisha (5.1%, 1.2%), moist snuff/snus (13.6%, 6.2%), heated tobacco products (8.0%, 3.1%), nicotine pouches (9.4%, 5.1%). E-cigarettes were reported as the most available nicotine product with 71.8% (n=3777) reporting them to be "fairly easy" or "very easy" to access, compared with 66.4% (n=3508) for cigarettes, 43.4% (n=2252) for moist snuff, 37.2% (n=1039) for nicotine pouches, 27.7% (n=1431) for heated tobacco products, and 14.8% (n= 763) Water Pipes/Shisha. Early initiation (aged 13 years or younger) was highest for e-cigarettes at 13.7% (n=718), higher than for cigarettes at 10.4% (n=554). By comparison, 1.3% (n=43) and 1% (n=33) reported early initiation for nicotine pouches and moist snuff (snus) respectively. Age 14 and 15 years were the most common ages for starting e-cigarette use and smoking respectively, while 16 years was the most common age for starting to use the newer nicotine products.

#### CONCLUSIONS

E-cigarettes are the nicotine product most used by 15-18 year olds with 4 in 10 having tried them and more than one in five being current users. They are also the easiest to access of all products and the product most tried by early users (age 13 or younger) reflecting lack of regulation until 2024. Teenager smoking seems not to have been reduced by e-cigarette use, with almost a third having tried smoking and 14% being current smokers. Moist snuff (snus)/nicotine pouches have been tried by more than one in ten teenagers and about four in every ten perceive them to be easy to access. Emerging nicotine products pose a new and additional risk for addiction. More stringent regulation of use by teenagers is needed.

**Tob. Prev. Cessation 2026;12(Supplement 1):A10**

## Emerging Nicotine Products OP23

## Smokeless nicotine use during pregnancy and preeclampsia hazard: A Swedish population-based cohort study

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#### BACKGROUND-AIM

Emerging smokeless nicotine products, such as oral nicotine pouches, are rapidly gaining popularity among young people. The addictive properties of these products raise questions about how using them during pregnancy may affect maternal and child health. Preeclampsia is a severe hypertensive pregnancy complication leading to considerable morbidity. The only definite cure is delivery making prevention crucial. Most research on nicotine exposure during pregnancy has focused on smoking, leaving the risks of smokeless products largely unknown. The Swedish smokeless tobacco product snus, together with oral nicotine pouches (introduced in 2016), have been registered in the Medical Birth Registry since 1999. This is offering a unique opportunity to study smokeless nicotine during pregnancy in a total-population cohort spanning more than two decades.

#### METHODS

We analyzed singleton pregnancies (1999–2020) in the Swedish Medical Birth Registry, which captures 98% of births in Sweden and collects self-reported smokeless nicotine use at the first antenatal visit. Preeclampsia was identified using ICD codes O11, O13-O15. Follow-up was from first antenatal visit until delivery, preeclampsia diagnosis, or loss to follow-up. Cox regression was used in complete case analysis to estimate hazard ratios and 95% confidence intervals (CI), adjusting for carrying parent age, body mass index, smoking, parity, origin, delivery year and socioeconomic factors. Effect modification by calendar period (<2016 vs ≥2016, when oral nicotine pouches first were introduced) was explored.

#### RESULTS

Preliminary adjusted hazard ratio for any preeclampsia among snus users was 1.13 (95% CI: 1.07–1.19) compared to non-users. The complete case cohort included 1 989 313 pregnancies and 100 209 preeclampsia events. Mean gestational age at first visit was 10.9 (±4.7) weeks. Mean follow-up time was 187±40.9 days for preeclampsia cases and 206±37.0 days for pregnancies censored for any reason. Effect modification analyses assessed if the introduction of oral nicotine pouches in 2016 had an impact on the association. Post-2016 (oral nicotine pouch era), the preliminary adjusted hazard ratio was 1.15 (95% CI: 1.02–1.29) for snus users compared to snus users in earlier years.

#### CONCLUSIONS

Our study suggests that there is a difference between previous findings from smokers and now smokeless nicotine users during pregnancy on preeclampsia hazard. The higher hazard ratio after oral nicotine pouches were introduced, may reflect the high nicotine content in these products, although this needs to be explored further. Further analyses will refine confounding control.

These results underscore the need for updated clinical guidelines and public health measures addressing smokeless nicotine use in pregnancy.

**Tob. Prev. Cessation 2026;12(Supplement 1):A11**

## Environment and Sustainability

### OP14

#### Emissions of particles and carbonyls from the use of herbal tea sticks

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#### BACKGROUND-AIM

Herbal sticks, made of tea and flavors or spices, with or without nicotine, can be used in heated tobacco products devices to substitute tobacco. The scope of this work is to study the particles and the carbonyls emitted from commercial herbal sticks and the impact of stick flavor, nicotine content and puffing regime on those emissions.

#### METHODS

Particles and carbonyls were determined in the mainstream emissions of four types of herbal sticks used with an IQOS device. The emissions were generated using a peristaltic pump under two standard puffing regimes, ISO and Canadian Health Intense regime. Particulate matter (PM) was measured in real time using a Dustrak aerosol monitor and Black Carbon (BC) with an aethalometer. Carbonyls were collected in an impinger containing a 2,4-dinitrophenylhydrazine solution and analyzed with HPLC-UV.

#### RESULTS

All tea sticks emit particles of diameter less than 1µm (PM1). PM and BC emissions were 3.75-12.26 mg/stick and 0.009-0.045 mg/stick respectively. Tea sticks also emit carbonyls, mainly acetaldehyde, propionaldehyde and butyraldehyde. The emission of particles and of carbonyls is higher when the puffing regime is more intense. The flavor of the stick and the presence of nicotine had a complex impact on particulate matter and BC emissions.

#### CONCLUSIONS

Toxic substances were emitted during the use of herbal sticks in a heated tobacco products device. The use conditions and the composition of the stick have an impact on those emissions.

**Tob. Prev. Cessation 2026;12(Supplement 1):A12**

## Environment and Sustainability

### OP38

#### Tobacco product waste at the crossroads of global and EU law: Aligning the SUP revision with FCTC article 18 and the UN plastics treaty

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#### BACKGROUND-AIM

As the EU prepares revision of the Single-Use Plastics (SUP)

Directive, global governance is shifting: COP11 adopted the decision on Article 18 FCTC, clarifying Parties' environmental obligations, while negotiations of a UN Plastics Treaty continue. These developments raise questions of coherence across EU law, international environmental law and the FCTC. This study examines: the state of play of the SUP revision; key regulatory challenges; interactions with the Tobacco Products Directive (TPD), FCTC Article 18, and the emerging Plastics Treaty.

#### METHODS

A comparative analysis will be conducted of the SUP Directive, the TPD, draft UN Plastics Treaty text, and the FCTC COP11 Article 18 decision. This includes: an assessment of regulatory gaps, risks of Treaty interaction under the Vienna Convention; scientific evidence on filter toxicity, chemical leachates and environmental persistence; examination of the growing market of biodegradable/plastic-free filters and their associated misleading claims; analysis of Extended Producer Responsibility schemes and their potential breaches of FCTC Article 5.3.

#### RESULTS

The SUP Directive faces several problems: its scope is limited to plastic filters, enabling the rise of equally harmful "biodegradable" alternatives; its EPR provisions allow tobacco-industry involvement that conflicts with FCTC Article 5.3; and it insufficiently covers waste from new nicotine products. The Tobacco Products Directive (TPD) could provide a legal path as Article 7 allows restrictions on product features that increase attractiveness, and cellulose acetate filters clearly facilitate deeper inhalation and smoother smoking. At the same time, the UN Plastics Treaty presents a separate risk: current drafts prioritise trade protections and provide weak links to health treaties, meaning that without explicit alignment, future plastics rules could undermine stronger FCTC-based measures such as filter bans, independent EPR and hazardous-waste classification.

#### CONCLUSIONS

The SUP revision is critical to align EU policy with global environmental and health frameworks. A material-neutral filter ban would reflect scientific evidence, prevent regulatory loopholes, and support implementation of COP11 FCTC Article 18. Should EPR remain in place, they must exclude industry involvement to comply Article 5.3, Article 13 and avoid greenwashing. Explicit alignment with the TPD, the FCTC (article 2.1, 5.3, 13 and 18), and the emerging UN Plastics Treaty is essential to ensure coherent, prevention-focused regulation of tobacco product waste. Such alignment would produce high-impact benefits for both public health and the environment.

**Tob. Prev. Cessation 2026;12(Supplement 1):A13**

## Environments. Smoke and Aerosol-Free Environments (SAFE)

### OP53

#### Trends in secondhand smoke exposure in European hospitality venues 2009-2020

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#### BACKGROUND-AIM

Exposure to secondhand smoke (SHS) causes over 1.2 million deaths annually worldwide. Although the European Union recommended smoke-free environments in 2009, legislative implementation varies significantly across Member States, and most existing evaluations rely on outdated data. This study provides the first decade-long analysis (2009–2020) of SHS exposure in hospitality venues across 27 EU countries to assess the long-term sustainability of these policies.

#### METHODS

We analyzed repeated cross-sectional data from five Eurobarometer survey waves, October 2009 (n= 26788), February–March 2012 (n=26751), November–December 2014 (n=26792), March 2017 (n=26853), and August–September 2020 (n=27281), for a total of 134465 respondents. Countries were classified by the timing of their comprehensive smoke-free laws for bars and restaurants: “early adopters” (legislation enacted before 2009), “later adopters” (2009–2020) and “non-adopters”. Multilevel logistic regression models estimated the odds of self-reported SHS exposure, adjusting for individual demographics and country-level factors, including GDP and the tobacco control scale.

#### RESULTS

Comprehensive legislation proved highly effective. In later-adopting countries, the adjusted odds of SHS exposure in bars dropped by 90% immediately following implementation. However, effectiveness varied by enforcement; while Spain saw a 98% reduction, Greece experienced increased exposure odds post-ban due to non-compliance. Later adopters demonstrated a “catch-up” effect, rapidly converging to the low exposure levels of early adopters despite starting with a higher prevalence (the unadjusted SHS exposure prevalence went from 68% in 2009 to 16% in 2020). Conversely, early adopters experienced a plateau in progress, with exposure rates stabilizing rather than reaching zero (12% in 2009 and 2020), highlighting a “last mile” challenge. Declines were also observed in countries without comprehensive laws (from 36% in 2009 to 16% in 2020), indicating a broader cultural shift toward protecting non-smokers.

#### CONCLUSIONS

Smoke-free legislation delivers immediate, robust protection, and it is never too late to implement bans, as later adopters quickly benefit from “diffusion of innovation”. However, legislation alone is insufficient for permanent success. The plateauing trends in early adopters indicate that sustaining low exposure requires vigilant enforcement and continuous monitoring to overcome compliance fatigue. Future efforts must focus on objective surveillance to protect the gains made toward a Tobacco-Free Generation.

**Tob. Prev. Cessation 2026;12(Supplement 1):A14**

## Equity and Inclusion

### OP28

#### Trends in smoking in France: a sharp decline over the past 10 years

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#### BACKGROUND-AIM

In 2014, France adopted its first National Tobacco Reduction Plan (PNRT) for the period 2014–2019, followed by two other plans. A variety of measures were implemented, including plain packaging, increased tobacco prices, the denormalisation of tobacco smoking through the expansion of smoke-free areas, reimbursement of nicotine replacement therapies, and the renewal of anti-smoking campaigns, notably the creation of Mois sans tabac (Tobacco-Free Month) in 2016. The third plan, for the period 2023–2027, reaffirmed the goal of achieving a tobacco-free generation by 2032. This paper aims to describe the evolution of smoking prevalence in France between 2000 and 2024, focusing on the last 10 years.

#### METHODS

The data used comes from Santé publique France's Health Barometers, cross-sectional telephone surveys which were conducted between 2000 and 2022 on random samples of the population aged 18-75 residing in France (between 3,229 and 28,224 people interviewed depending on the year). In 2024, the method evolved with the introduction of online data collection, and 28,066 people responded to the survey.

#### RESULTS

In mainland France in 2024, 25.0% of people aged 18 to 75 reported smoking tobacco, and 18.2% were daily smokers. The prevalence of daily smoking varied from 13.2% among college graduate people to 22.6% among those with no qualification or less than high school diploma. It ranges from 9.9% among retirees, 12.4% among students, 19.4% among employed individuals, to 30.9% among unemployed ones. Following a period of relative stability between 2000 and 2016, a sharp decline in daily smoking prevalence was observed between 2016 and 2019, falling from 29.4% to 24.0%. Between 2019 and 2021, there was no significant variation in the prevalence of daily smoking among 18–75-year-olds overall, but it increased among those with lower levels of education and among women. Between 2021 and 2024, daily smoking in adult population fell from 25.3% to 18.2%. The downward trend observed since 2016, which was interrupted during the Covid-19 pandemic, is resuming. Since the launch of the PNRT in 2014, the number of daily smokers aged 18 to 75 has fallen by 4 million. At the same time, in 2024, 8.4% of people aged 18–75 reported vaping, and 6.5% reported vaping daily. These proportions have increased since 2016.

#### CONCLUSIONS

The decline in smoking in France confirms the effectiveness of the tobacco control policies that have been implemented over the past 10 years. However, significant social inequalities in smoking prevalence mean that these measures must be continued and strengthened so that the benefits of this trend can be observed over the entire population.

**Tob. Prev. Cessation 2026;12(Supplement 1):A15**

## Equity and Inclusion

### OP30

## Different types of school absenteeism and associations with smoking and e-cigarette use

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### BACKGROUND-AIM

The connection between school absenteeism and substance use is well established, particularly for chronic school absenteeism. Truancy - unexcused school absence - has received most attention, being strongly associated with a range of risk behaviours including substance use. Differences in substance use behaviour between students who report truancy and other types of school absenteeism such as for illness have received less attention. This study examines whether smoking and e-cigarette use differs depending on reasons for school absenteeism- truancy, illness, or other reason.

### METHODS

We use data from a nationally representative stratified random sample of (n=5587) 15-18 year olds in Ireland, collected online in 2024 using the European School Survey Project on Alcohol and other Drugs protocol. Respondents were asked if they had ever smoked/used e-cigarettes (ever use) and if yes, their use in the previous 30 days (current use). Three types of school absenteeism were measured by whether respondents answered “yes” to any of these questions “During the LAST 30 DAYS on how many days have you missed one or more lessons?”: “Because of illness”, “Because you skipped or ‘cut’” (truancy), “For other reasons” (6 response categories, never to 7 days or more). Analyses were carried out using SPSS v29.

### RESULTS

School absence on at least one day during the previous 30 days ranged from 62.6% (n=2985) for illness, 60.8% (n=3065) for other reasons, and 23.9% (n=1120) for truancy. For illness, other reasons and truancy respectively, 7.1% (n=340), 6.9% (n=348) and 2.6% (n=124) reported absence on 7 days or more. Prevalence of smoking was 31.2% (n=1,664) ever and 14.2% (n=758) current; and of e-cigarette use 39.3% (n=2,066) ever, and 20.6% (n=1083) current. Those who reported no absences had significantly lower prevalence of smoking and e-cigarette use (p<0.001) than those who reported any absence (one or more days). This was the case for absences for illness, for truancy and for other reasons (p<0.001). In general, more absenteeism was associated with increasingly higher prevalence of ever and current smoking and e-cigarette use. Associations with truancy were most pronounced, with those who reported 7 days or more absenteeism having prevalence of 51.6% (n=63) current smoking and 61.9% (n=73) current e-cigarette use (p<0.001).

### CONCLUSIONS

We find that absence from school for any reason (illness, truancy or other) is associated with higher prevalence of smoking and e-cigarette use, particularly pronounced for absences due to truancy. Absenteeism “for other reasons” needs further examination, being potentially linked to school exclusion, withdrawal, or refusal (including absence due to mental health problems such as anxiety). Increases in school absenteeism since Covid-19 pandemic have been widely documented and should therefore become a more salient focus in tobacco control research. This potentially hard-to-reach population needs special attention. Health literacy, Providing information to empower people to resist industry tactics and make informed choices.

Tob. Prev. Cessation 2026;12(Supplement 1):A16

## Equity and Inclusion

### OP32

## Educational inequalities in tobacco-related cancer mortality in 28 European countries

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### BACKGROUND-AIM

Educational inequalities in both tobacco smoking behaviour and cancer mortality persist across Europe, yet the extent to which inequalities in smoking contribute to cancer mortality remains underexplored. Conventional indicators such as smoking prevalence do not reflect the duration or intensity of smoking. Lifetime smoking exposure indicators such as pack-years may provide a more precise estimate of cancer risk. This is particularly important for assessing educational inequalities in cancer mortality, as lower-educated groups accumulate far greater lifetime exposure. This study estimated the contribution of smoking based on pack-years and of educational inequalities in smoking to cancer mortality across 28 European countries in 2022.

### METHODS

Population attributable fractions (PAFs) for smoking were estimated using Levin’s formula, applying categorical pack-

years derived from the Special Eurobarometer surveys (2017–2020;  $n=56201$  aged  $\geq 15$ ), and relative risks for smoking-related cancers from published meta-analyses. These PAFs were applied to GLOBOCAN 2022 mortality data to estimate all cancer deaths by age and education level in each country and sex. Population preventable fractions (PPFs) were calculated using a counterfactual scenario in which all educational groups were assigned the lowest pack-years distribution observed within each country.

#### RESULTS

An estimated 332000 cancer deaths or 22.5% (95% uncertainty interval, UI: 20.0%–25.0%) of all cancer deaths in Europe in 2022 were attributable to smoking. Men accounted for 70.4% of these deaths, and lung cancer alone represented more than 60% of smoking-attributable cancer deaths (203800; 189200–216900). Marked regional differences were observed, with the highest PAFs in Eastern Europe among men (32.6% [29.6%–35.4%]) and in Northern Europe among women (17.9% [15.5%–20.2%]). A clear educational gradient in pack-years was observed for both sexes, and a similar pattern in smoking-attributable cancer mortality was found for men. However, educational gradients were less consistent for women, with some Southern and Eastern European countries showing lower PAFs in the lower-education groups. If educational inequalities in smoking were eliminated, an estimated 58,000 cancer deaths or 4.0% (1.6%–7.2%) of all cancer deaths, could have been avoided, with the highest PAFs observed in Eastern Europe for men (5.7% [2.2%–9.9%]) and in Northern Europe for women (5.3% [2.7%–8.3%]).

#### CONCLUSIONS

Tobacco smoking continues to be a major contributor to cancer mortality in Europe, accounting for nearly one in four of all cancer deaths. While educational inequalities in smoking do not fully explain smoking-related cancer deaths, educational inequalities in smoking-related cancer need to be monitored, as their contribution may grow over time. Achieving substantial reductions in smoking-related cancer deaths will require sustained population-wide declines in smoking combined with strategies and gains that ensure these benefits reach all socioeconomic groups.

**Tob. Prev. Cessation 2026;12(Supplement 1):A17**

## Equity and Inclusion

### OP33

#### Tobacco use and cessation among adults with intellectual disability: advancing inclusion in tobacco research

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#### BACKGROUND-AIM

People with intellectual disability (ID) remain significantly underrepresented in mainstream tobacco research and public health initiatives, resulting in critical knowledge and resource gaps. A deeper understanding of their smoking behaviors and the cessation support they receive is essential to developing inclusive, accessible, equitable, and effective prevention and treatment strategies. Therefore, this study aims to directly assess tobacco

use and motivation to quit among adults with ID using a cross-sectional survey.

#### METHODS

A total of 74 adults with ID who smoked tobacco participated in the study (27% women), aged 18–77 years ( $M = 46.1$ ;  $SD = 13.9$ ). Most participants had mild (59.5%) or moderate ID (36.5%), with fewer presenting severe (2.7%) or profound (1.4%) disability. A cross-sectional survey was designed and administered in Spain to evaluate tobacco use, dependence, and motivation to quit. The survey—adapted using simplified language and images—was distributed online and collected information on sociodemographic characteristics, disability level, living situation, autonomy in purchasing tobacco, smoking patterns, tobacco dependence (adapted Fagerström items), emotional triggers, cessation attempts, and motivation to quit.

#### RESULTS

Nearly half of the participants (45.9%) perceived their smoking as problematic. Smoking typically began during adolescence, with 66.3% initiating between ages 14 and 18 ( $M = 17.9$ ;  $SD = 6.5$ ). Most (86.5%) smoked daily, and 64.9% consumed up to 10 cigarettes per day. Additionally, 20.3% reported smoking small cigars. Very few smoked when alone (17.6%), and 56.8% reported smoking more during episodes of anxiety. Relaxation (89.2%) and pleasure (78.4%) were the most frequently reported motivations for smoking. Only 18.9% expressed a desire or intention to quit. Furthermore, 48.6% believed quitting was impossible, 39.2% considered it difficult, and 31.1% feared weight gain if they stopped smoking. Previous quit attempts were reported by 45.9% of participants, generally limited to a single attempt and less than one month of abstinence. Only 18.9% received professional support: 4.1% with nicotine pills, 4.1% with a doctor or psychologist, 4.1% with both, and 2.7% used nicotine patches or gum.

#### CONCLUSIONS

Adults with ID experience substantial inequities in tobacco prevention efforts and access to cessation support. The findings underscore the critical need for inclusive, evidence-based interventions tailored to this population. Strengthening the role of healthcare providers and support staff, addressing structural barriers, and promoting accessible, rights-based approaches may improve autonomy, health outcomes, and overall wellbeing. This study provides foundational data to guide future research and practical strategies to reduce disparities and enhance tobacco cessation services for this underserved group.

**Tob. Prev. Cessation 2026;12(Supplement 1):A18**

## Health Consequences of Tobacco and Nicotine Use

### OP39

#### Effect of the use of novel nicotine products on the risk of cancer and other noncommunicable diseases

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#### BACKGROUND-AIM

Evidence on the long-term health effects of novel nicotine products

(NNPs), including electronic cigarettes (EC) and heated tobacco products (HTP), remains limited. To our knowledge, to date, only one case-control study has been published on this issue, reporting a fourfold increase in lung cancer risk among dual users of EC and conventional cigarette (CC) compared with exclusive CC smokers. This study aims to investigate the association between the use of NNPs and the risk of selected noncommunicable diseases in a large sample of Italian adults.

#### METHODS

Between October 2023 and March 2024, a cross-sectional sample of 22380 Italian adults was recruited through an online panel within the IG 2021 AIRC project (ID: 25987). Participants completed a structured questionnaire on their use of CCs, ECs, and HTPs, and self-reported the diagnosis of selected neoplasms, cardiovascular diseases (CVD) or respiratory diseases, including the year of diagnosis. Using multivariable logistic regression, we estimated sex- and age-adjusted odds ratios (aORs) of self-reported incidence of selected conditions occurred in the last five years (2018–2024) for ever CC smokers and for ever exclusive NNP users, each compared with individuals reporting never use of any nicotine product.

#### RESULTS

Among 22380 participants, 12,818 (57.3%) were ever CC smokers and 484 (2.2%) were ever exclusive NNP users. Overall, 41 individuals (0.2%) reported a lung cancer diagnosis occurred in the last five years, 256 (1.1%) reported at least one smoking-related cancer, 490 (2.2%) at least one non-smoking-related cancer, 1,005 (4.5%) a CVD, and 522 (2.3%) a respiratory disease. The aOR for lung cancer was 4.11 (95% CI: 1.59–10.61) among ever CC smokers and 21.73 (95% CI: 5.74–82.3) among ever exclusive NNP users. Corresponding aORs for ever CC smokers and ever exclusive NNP users, respectively, were: 2.16 (95% CI: 1.60–2.93) and 7.13 (95% CI: 4.06–12.54) for smoking-related cancers; 1.21 (95% CI: 1.00–1.47) and 2.11 (95% CI: 1.24–3.59) for non-smoking-related cancers; 1.39 (95% CI: 1.22–1.60) and 1.82 (95% CI: 1.20–2.76) for CVDs; and 2.13 (95% CI: 1.74–2.61) and 3.21 (95% CI: 1.94–5.31) for respiratory tract diseases. Similar patterns of increased risk among NNP users compared with CC smokers were observed for several specific cancers, including those of the oral cavity and pharynx, esophagus, larynx, pancreas, bladder, kidney, liver, stomach, and brain, as well as leukemias.

#### CONCLUSIONS

Although this study relies on self-reported use of products and diagnoses and it is limited by its cross-sectional design, our findings are far to support the claim that ECs and HTPs confer reduced health risks compared with CCs. Ever exclusive NNP users showed risks for tobacco-related cancers that were 2.3–10.9 times those of ever CC smokers.

**Tob. Prev. Cessation 2026;12(Supplement 1):A19**

## Health Consequences of Tobacco and Nicotine Use

### OP40

#### Effect of novel tobacco products on gut microbiota composition in healthy young adults

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#### BACKGROUND-AIM

The gut microbiota plays a key role in human health, and its composition can be modulated by lifestyle factors, including tobacco use. While traditional cigarette smoking is known to alter gut microbial balance, data on the impact of novel nicotine products are still limited. This study aimed to evaluate the association between gut microbiota structure and smoking habits, including HTP and e cigarette use.

#### METHODS

The study was conducted on 211 healthy students from the Universities of Naples Parthenope and Rome Sapienza. Participants completed questionnaires on smoking behavior and collected faecal samples. Exclusion criteria included chronic diseases, recent antibiotic or probiotic use, and gastrointestinal surgery or infection in the previous 3 months. Fecal samples were self collected using sterile swabs and processed within 24 hours. Bacterial DNA was extracted and microbial composition was analyzed by 16S rRNA sequencing. Statistical analyses included linear regression models and heatmaps to assess associations between microbiota and lifestyle variables.

#### RESULTS

A total of 211 participants (119 females, 92 males; mean age 22.3 ± 2.8 years) were included; 51.7% non smokers, among the 48.3% smokers: 56% cigarette smokers, almost 8% exclusive HTP/e cig users, 11% dual users, and 18% were former smokers, <7% did not specify smoking type. Sequencing identified Firmicutes (57.6 ± 14.6%) and Bacteroidetes (35.0 ± 13.3%) as dominant phyla. Linear regression showed that Firmicutes relative abundance increased by 0.48 per cigarette pack (p = 0.03). Stacked bar charts indicated that exclusive HTP/e cig users had markedly higher mean relative abundances of Bacillus (39.7%), Facklamia (15.0%), and Prevotella (13.7%), values that were comparable in dual users (Bacillus 38.1%, Facklamia 11.9%) and clearly higher than in non smokers and conventional cigarette smokers (Bacillus and Facklamia <5%). Non smokers showed relatively higher Bacteroides and Faecalibacterium, whereas smokers had slightly higher Prevotella, Bacillus, and Lachnospiraceae. Overall, HTP/e cig use and dual users were associated with a distinct genus level gut microbiota profile enriched in potentially pro inflammatory taxa such as Facklamia, which can act as an opportunistic, and Prevotella that has been linked to periodontal disease, respiratory infections, and inflammatory bowel disease.

#### CONCLUSIONS

This study shows that cigarette smoking can alter gut microbiota composition even in healthy young adults. The observed increase in Firmicutes and the distinctive genus level signatures in HTP/e cigarette users suggest potential pathways through which these products influence metabolic and inflammatory processes. These preliminary findings highlight the sensitivity of the gut microbiota to novel tobacco and nicotine products, but further research in larger and more diverse populations is needed to confirm these effects and their long term health implications.

**Tob. Prev. Cessation 2026;12(Supplement 1):A20**

## Health Consequences of Tobacco and Nicotine Use

### OP41

#### Urinary carcinogens, molecular alterations, and bladder cancer risk in electronic cigarette users

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#### BACKGROUND-AIM

The rapid increase in the use of electronic cigarettes (e-cigarettes) necessitates a comprehensive understanding of their long-term health consequences, particularly concerning carcinogenesis. Conventional cigarette smoking is the leading modifiable risk factor for bladder cancer, primarily due to the excretion of carcinogenic metabolites in the urine. This study investigates the presence of established and potential carcinogens in the urine of e-cigarette users and explores associated molecular alterations to assess the potential risk of developing bladder cancer.

#### METHODS

A systematic literature review and synthesis of translational and basic science findings were conducted. The analysis focused on studies that quantified urinary biomarkers of exposure (BoEs) for carcinogens, including tobacco-specific nitrosamines (TSNAs), volatile organic compounds (VOCs), and polycyclic aromatic hydrocarbons (PAHs), in e-cigarette users compared to non-users and combustible cigarette smokers. Furthermore, studies exploring molecular alterations, such as DNA damage (e.g., adducts and 8-hydroxy-2'-deoxyguanosine (8-OHdG)), oxidative stress markers, and DNA methylation patterns in genitourinary tissues or cells (human and murine models), were included to elucidate mechanistic pathways of carcinogenesis.

#### RESULTS

E-cigarette users exhibit significantly higher levels of several carcinogen biomarkers in their urine compared to non-users. Specifically, two aromatic amines that are established human bladder carcinogens, o-toluidine (found at a mean 2.3-fold higher concentration vs. controls) and 2-naphthylamine (mean 1.3-fold higher concentration), have been identified. Additionally, the genotoxic metabolite MNPB was found at significantly elevated levels. Furthermore, users show significantly elevated oxidative DNA damage, evidenced by urinary 8-OHdG levels often comparable to combustible cigarette smokers, with metal exposure such as zinc, potentially contributing to this effect. At the molecular level, e-cigarette exposure induces DNA damage and leads to shared DNA methylation changes between e-cigarette users and combustible cigarette smokers in epithelial cells, including loci associated with cancer-linked pathways including NOTCH1/RUNX3, indicating an epigenetic predisposition for carcinogenesis.

#### CONCLUSIONS

The presence of established urinary carcinogens (aromatic amines), genotoxic biomarkers (MNPB), and significant evidence of oxidative DNA damage (8-OHdG), coupled with adverse

epigenetic alterations, strongly suggests that electronic cigarette use places the user at an elevated, though likely lower than combustible cigarettes, risk for carcinogenesis and the potential development of bladder cancer. While the long-term clinical incidence requires decades of longitudinal follow-up, the current molecular and biomarker data provide a strong mechanistic rationale for concern regarding chronic urothelial exposure to these toxicants.

**Tob. Prev. Cessation 2026;12(Supplement 1):A21**

## Health Consequences of Tobacco and Nicotine Use

### OP42

#### Prognostic impact of combustible smoking cessation on bladder cancer outcomes

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#### BACKGROUND-AIM

Conventional combustible cigarette smoking is the primary modifiable risk factor for the development and adverse prognosis of bladder cancer (BCa). Continued smoking after a BCa diagnosis has been consistently linked to poorer clinical outcomes. This systematic review and meta-analysis synthesizes existing quantitative evidence to precisely estimate the prognostic risk (Hazard Ratios, HRs) of continued smoking versus cessation on BCa recurrence and mortality, providing crucial data for clinical counseling.

#### METHODS

A systematic literature review and quantitative synthesis (meta-analysis) of published studies were conducted, focusing on bladder cancer patients with documented smoking status changes post-diagnosis. Studies reporting Hazard Ratios (HRs) for Recurrence, Cancer-Specific Mortality (CSM), and Overall Mortality were included. Data from recent high-quality meta-analyses were pooled to calculate Summary Hazard Ratios (SHRs) for risk comparisons against never-smokers or patients who achieved cessation.

#### RESULTS

The meta-analysis confirms that smoking status significantly worsens the prognosis of patients diagnosed with bladder cancer (BCa). Current smokers face a significantly worse prognosis across all tracked endpoints compared to never smokers. Current smokers have a 21% to 28% increased risk of Overall Mortality (SHR 1.21–1.28) and a 24% increased risk of Cancer-Specific Mortality (SHR 1.24). Furthermore, continued smoking raises the risk of Recurrence by 24% to 33% (SHR 1.24–1.33). Even former smokers retain a 22% increased risk of recurrence compared to never smokers, demonstrating the long-term impact of past exposure. Crucially, studies on post-diagnosis intervention show that quitting smoking at or near diagnosis leads to a substantial benefit compared to continued smoking. Cessation is associated with a 29% reduction in the hazard of Overall Survival (SHR

0.71) and a 36% to 41% reduction in the hazard of Recurrence/Progression (SHR 0.59–0.64).

#### CONCLUSIONS

Continued combustible smoking after a bladder cancer diagnosis significantly increases the risk of overall mortality, cancer-specific mortality, and disease recurrence by over 20% compared to never smokers. Crucially, cessation at the time of diagnosis is associated with a clinically meaningful 29-41% reduction in the hazard of adverse outcomes compared to continued smoking. This strongly supports the necessity of aggressive smoking cessation efforts in all patients diagnosed with bladder cancer to improve prognosis.

**Tob. Prev. Cessation 2026;12(Supplement 1):A22**

## Health Consequences of Tobacco and Nicotine Use

### OP43

#### Comparative effects of vaping, smoking, and dual exposure on third trimester fetal biometry a secondary analysis of the echo study

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#### BACKGROUND-AIM

E-cigarette use is increasing globally, including among women of reproductive age. Despite robust evidence that cigarette smoking negatively impacts fetal growth, data on vaping in pregnancy remain contradictory, with much of the evidence against vaping derived from registry datasets lacking biomarker-validated exposure status. The ECHO study is a large, prospective, multi-centre cohort funded by Science Foundation Ireland and Tobacco Free Ireland. It longitudinally follows pregnant women exposed to smoking, vaping or dual use, compared with non-exposed controls. This analysis presents novel data on the effect of vaping on third-trimester fetal growth.

#### METHODS

Exposure status was determined using questionnaires (at screening, anatomy scan, third-trimester scan and birth) and objective biomarkers (urinary cotinine and breath CO). Third-trimester growth scans were performed at 32–34+6 weeks using Voluson E8/E10 machines. Fetal biometry and estimated fetal weight (EFW) were extracted from Viewpoint 6 and converted to gestational-age-adjusted centiles using published reference charts (Snijders 1994; Nicolaidis 2018). Due to non-normal distribution, centiles were analysed using Kruskal–Wallis tests with Dunn's post-hoc correction to compare controls, smokers, vapers and dual users.

#### RESULTS

For EFW, significant group differences were observed ( $p=0.0067$ ). Post-hoc testing showed reduced EFW in smokers

( $p<0.001$ ) and dual users ( $p=0.011$ ) compared with controls and vapers. For femur length, group differences were also significant ( $p=0.024$ ), with smokers ( $p<0.001$ ) and dual users ( $p=0.007$ ) again demonstrating lower measurements for gestational age than controls and vapers. For abdominal circumference, overall group differences were present ( $p=0.039$ ), with a trend toward reduction in smokers and dual users that did not reach statistical significance ( $p=0.06$ ). Across all parameters, smoking—and to a lesser extent dual exposure—was associated with reduced fetal growth. In contrast, vaping showed no significant reduction in any biometry measure when compared with controls.

#### CONCLUSIONS

This large biomarker-validated analysis demonstrates that smoking and dual exposure are associated with impaired third-trimester fetal growth, whereas vaping was not associated with significant growth restriction. These findings align with emerging prospective evidence and contrast with registry-based reports suggesting harm from vaping. While the dual-exposure subgroup was small and the analysis is limited to third-trimester growth, results suggest that vaping does not replicate the growth-limiting effects of smoking. Longitudinal follow-up will provide critical data on postnatal growth and neurocognitive outcomes at 1 and 2 years.

**Tob. Prev. Cessation 2026;12(Supplement 1):A23**

## Lung Cancer Screening

### OP06

#### Integration with smoking cessation in the ccm-italung2 pilot on lung cancer screening in Italy. Preliminary results

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#### BACKGROUND-AIM

The CCM-ITALUNG2 pilot was implemented in 2022-2024 to evaluate the feasibility of an organized two-round low-dose CT (LDCT) lung cancer screening program offered in combination with smoking cessation (SC) in five Italian centres (Florence, Pisa, Massa, Milan, and Turin).

**METHODS**

Within the screening pathway, recruitment included delivering SC brief advice, and possible referral to local Smoking Cessation Services (SCSs). Actual participation to SCSs programs was recorded, and a survey on smoking status was carried out to all current smokers at recruitment, after 6 months from the second-round LDCT.

**RESULTS**

1144 individuals were recruited using different strategies, including in-person invitation by general practitioners (GPs; 32%) or other healthcare personnel (O(;)HPs; 18%), self-presentation (36%), phone invitation using GPs' patient lists (14%). Participants invited by GPs, compared to self-presented, were more likely to report lower education level (53% vs. 25%,  $p < 0.001$ ), and co-morbidity (27% vs. 14%,  $p < 0.001$ ). During recruitment sessions, SC brief advice was administered to almost all current smokers ( $N=1,004$ ); 37% accepted referral to SCSs, and 20% actually attended SCSs quitting smoking programs. Individuals referred to SCSs were more likely to come from the Pisa, Massa, and Florence Centers (adjusted Odds Ratio [AOR]= 6.81;  $p < 0.01$ ; 55% vs. 24%), and to be recruited by face-to-face invitation (AOR=2.38;  $p < 0.01$ ; 56% vs. 34%). Self-presented and individuals invited by oHPs were more likely to attend SCSs programs (AOR=3.52;  $p < 0.001$ ; 65% vs. 34%), and to come from Pisa, Milan, and Turin Centres (AOR=13.15;  $p < 0.001$ ; 74% vs. 19%). Programs at SCSs were administered through individual (72%) or group sessions (22%); 66% of participants received SC drugs (among them, 87% cytisine). Most participants received SC leaflets and were invited to visit a SC website developed for the pilot (<http://www.liberodalfumo.it/>). At the end of the study, 792 out of 1004 current smokers (79%) were interviewed to report their smoking status after two screening rounds. In an intention-to-treat analysis, 160 (16%) reported to be continuously abstinent to nicotine (i.e., former smokers). They were more likely to have the highest education level (AOR=1.86;  $p=0.011$ ; 21% vs. 14%), and an indeterminate or a true positive baseline LDCT (respectively, AOR=1.63;  $p=0.028$ ; 22% vs. 15%; AOR=2.97;  $p=0.051$ , 31% vs. 15%). Among the 160 quitters, 68 (43%) reported to have quit through SCSs programs, and 9% for LDCT results or anxiety due to having a LDCT scan.

**CONCLUSIONS**

Delivering SC brief advice during recruitment and offering SCS referral were feasible within the screening pathway. Invitation strategies influenced SCSs referral and actual participation to SCSs programs. At the end of the study, in addition to the 18 participants with lung cancer (1.6%) that were diagnosed through the baseline LDCT, 160 current smokers (16%) became continuously abstinent to nicotine.

**Tob. Prev. Cessation 2026;12(Supplement 1):A24**

## Smoke and Aerosol-Free Environments (SAFE) OP44

### Feasibility and preliminary effectiveness of a digital intervention targeting expectant fathers to promote second-hand smoke exposure reduction during pregnancy: A pilot randomized controlled trial

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**BACKGROUND-AIM**

Pregnant women are primarily exposed to secondhand smoke (SHS) in private environments such as the home, mainly due to their male partner's smoking. Previous interventions have typically targeted pregnant women, providing them information and tools, despite many women feeling uncomfortable confronting their partners to smoke only outdoors. This study aimed to assess the feasibility and preliminary effectiveness of First Breath—a digital behavioral intervention to support expectant fathers to reduce SHS exposure during pregnancy.

**METHODS**

A pilot randomized controlled trial (RCT). Eligible participants were male, Hebrew-speaking, aged  $\geq 18$ , smoking at least one combustible cigarette per day, and living with a pregnant partner ( $< 25$  weeks gestation). Exclusion criteria included engagement in a smoking cessation program, high-risk pregnancy, having a pregnant partner who currently smokes, or lack of internet access. Participants were randomized to receive either the First Breath intervention or general information about SHS (control). At baseline and 12-weeks follow-up, participants completed questionnaires including self-report of smoking rules at home and perceived SHS exposure (0–10 scale) of their pregnant partner.

**RESULTS**

Of the 120 individuals screened, 45 (37.5%) met the eligibility criteria and provided informed consent. A total of 42 participants (93%) completed the follow-up assessment. Mean engagement time with the First Breath app was 13 minutes (SD = 0.6–42.8) in the intervention group ( $n = 22$ ), compared with 1 minute (SD = 0.6–4) in the control group ( $n = 20$ ). The SHS exposure score decreased from 5.5 at baseline to 4.3 after 12 weeks in the intervention group ( $p = 0.18$ ) but slightly increased in the control group (4.6 to 5.4,  $p = 0.14$ ). A significant reduction in smoking behavior (average number of cigarettes smoked per day) was observed in the intervention group ( $p=0.01$ ), whereas no significant change occurred in the control group ( $p=0.1$ ). In the intervention group, 4 participants (19%) reported a positive change in smoke-free home (SFH) rules, while 17 (81%) reported no change. In the control group, 3 participants (15.8%) reported a positive change, and 16 (84.2%) reported no change or a negative change in SFH rules.

**CONCLUSIONS**

The First Breath intervention was feasible for expectant fathers and showed some preliminary effectiveness. Larger trials are needed to assess its impact on home smoking behaviors and prenatal SHS exposure. Findings will inform the design of a future full-scale RCT.

**Tob. Prev. Cessation 2026;12(Supplement 1):A25**

## Smoke and Aerosol-Free Environments (SAFE) OP45

### Smoking in cars with children: What do Europeans who smoke do? Findings from eight ITC European surveys

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#### BACKGROUND-AIM

Exposure to second-hand smoke (SHS) in cars is a significant public health concern, particularly for children. Voluntary car-smoking restrictions are a key strategy for reducing this exposure. This study examined voluntary smoking restrictions among adults who smoke when carrying children in their private cars in eight European countries.

#### METHODS

A cross-sectional study was conducted using the most recent International Tobacco Control Surveys (2018-2022) in France, Germany, Greece, Hungary, the Netherlands, Poland, Romania, and Spain. Analyses were restricted to 6,381 adults who currently smoke, own a car, and have ever had children in it. We estimated the prevalence and 95% confidence intervals (CI) of total, partial, and no voluntary smoking restriction in cars carrying children by socio-demographics, smoking-related variables, and beliefs about the effects of SHS on health. We estimated adjusted prevalence ratios (A(:)PR) and 95% CI using Poisson regression to assess the associations between car smoking restrictions and covariates.

#### RESULTS

Most people who smoke prohibit smoking completely in their cars when carrying children (78.0%; 95% CI: 76.8-79.2%), ranging from 63.5% in Greece (95% CI: 59.5-67.4%) to 90.9% in Spain (95% CI: 87.5-93.4%). In contrast, 13.8% (95% CI: 12.8-14.8%) have a partial restriction, and 8.2% (95% CI: 7.5-9.1%) have no restriction. Main correlates of lacking any voluntary smoking restriction compared with restricting smoking completely were: being male (A(:)PR: 1.66; 95% CI: 1.36-2.02), having a low (aPR: 1.74; 95% CI: 1.28-2.38) or moderate (aPR: 1.79; 95% CI: 1.33-2.40) level of education, not having children (aPR: 1.34; 95% CI: 1.07-1.69), having moderate (aPR: 1.83; 95% CI: 1.46-2.30) or high (aPR: 3.82; 95% CI: 2.86-5.10) nicotine dependence, not having tried to quit smoking (aPR: 1.81; 95% CI: 1.48-2.20), and not believing that SHS causes lung cancer in adults (aPR: 1.49; 95% CI: 1.22-1.82) and asthma in children (aPR: 1.65; 95% CI: 1.35-2.02).

#### CONCLUSIONS

Most people who smoke in eight European countries prohibit smoking completely in cars carrying children. Health-promotion strategies should address the factors associated with lack of car-

smoking restrictions to protect children from SHS exposure.

**Tob. Prev. Cessation 2026;12(Supplement 1):A26**

## Smoke and Aerosol-Free Environments (SAFE) OP48

### Promoting smoke-free homes among Spanish households with children: A mixed-methods pilot intervention study

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#### BACKGROUND-AIM

About 70% of Spanish adults who smoke permit smoking in their homes, exposing household members to second-hand smoke (SHS). This pilot study aimed to assess the feasibility of implementing an adapted evidence-based smoke-free homes (SFH) intervention and to test its short-term effectiveness in promoting SFHs among Spanish households with minors.

#### METHODS

In 2023–2024, we conducted a pilot study using a mixed-methods sequential explanatory design in the Barcelona Metropolitan Area. We recruited 45 participants through associations of school

students' families, living in households with minors and with at least one person who smokes. A pre–post intervention study to create SFHs was carried out. The intervention was adapted from the “Some Things Are Better Outside” program developed by Emory University (USA). It was delivered over six weeks and consisted of three mailings of printed materials (a guide to creating a SFH, challenges and solutions, an information sheet on third-hand smoke, etc.) and one coaching call. Then, a two-week follow-up was carried out (quantitative component), followed by eleven semi-structured interviews (qualitative component). Quantitative outcomes included recruitment strategy appropriateness, use and perceived usefulness of materials, and the intervention's impact on SFH adoption and other home smoking characteristics. Qualitative research explored motivations, challenges, and facilitators of SFH adoption.

#### RESULTS

Among the 45 participants recruited, 28 were people who smoke and 17 were people who do not smoke. At baseline, 3 participants had no smoking rules in place and 42 reported having some form of smoking restriction in their homes (28 allowed smoking only in outdoor household areas (e.g., balconies), 11 allowed smoking both indoors and outdoors, and 3 allowed smoking in specific indoor areas). Almost all participants with follow-up data (40 out of 41) perceived the recruitment strategy appropriate and rated the intervention materials as useful. At follow-up, 28 participants reported attempts to adopt SFH, and 7 succeeded. Number of days smoking occurred at home and cigarettes smoked per day decreased significantly at follow-up. Qualitative research showed that the main motivation to participate was protecting the health of household members, particularly children. The intervention components considered most useful were its core elements: the coaching call and the guide to adopting a SFH. The primary challenges to adopting SFHs were resistance from smoking family members and a low perceived risk associated with smoking in outdoor areas of the home.

#### CONCLUSIONS

Implementing the adapted intervention through associations of students' families is feasible in an urban Spanish school setting. The intervention showed promising short-term effectiveness in promoting the adoption of SFHs. These findings support the need for a rigorous implementation-effectiveness trial.

**Tob. Prev. Cessation 2026;12(Supplement 1):A27**

### Smoke and Aerosol-Free Environments (SAFE) OP49

#### Secondhand smoke exposure in households in Cantabria: The influence of children on indoor smoking behaviors

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#### BACKGROUND-AIM

Secondhand smoke exposure remains a major public health concern. In Spain, although smoking is banned in indoor public spaces, private environments such as homes can not be regulated,

posing a risk of exposure—particularly for children. The aim was to assess whether the presence of children influenced indoor smoking practices.

#### METHODS

In May 2025, two opportunistic surveys were conducted in Cantabria to explore smoking behaviours in domestic settings, considering the presence of children in the household, carried out by primary care nurses, one at information stands in healthcare centers, and another among minors from educational institutions. Smoking inside the home was defined as smoking in any domestic area, including balconies/terraces, windows, or indoor rooms. Data were analyzed using SPSS v20.

#### RESULTS

A total of 5565 questionnaires were collected: 1966 from participants 11 to 18 years old (49.5% girls) and 3599 from adults >18 years (61.7% women). Among adolescents, 3.9% were smokers and 3.9% regular e-cigarette users. Among adults, 20.8% were current smokers, 31.7% former smokers, and 45.2% never smokers; 1.7% were e-cigarette users. Among minors, 36.7% lived with at least one smoker and 5.7% with an e-cigarette user. A complete home smoking ban was reported by only 9.1% of respondents. Smoking most commonly occurred on terraces (53%), at windows (37.7%), or in indoor rooms (26.2%). Among adults, the prevalence of complete home smoking bans did not differ by the presence of children (90.5% vs. 91.8%;  $p = 0.62$ ). However, partial restrictions differed in homes with children: smoking occurred more frequently on terraces (54.0% vs. 43.4%;  $p = 0.008$ ) and less often indoors (24.6% vs. 40.4%;  $p < 0.001$ ). In 97.6% of households, no one used electronic cigarettes.

#### CONCLUSIONS

Complete smoking restrictions are not influenced by the presence of minors in the household. In homes with minors, however, behavioral patterns change under partial indoor smoking restrictions, with a significant increase in smoking on terraces. Even so, one in three minors is still exposed to tobacco smoke. Reports from minors and adults are consistent regarding smoking restrictions, enhancing the reliability of the results. Although the presence of minors reduces indoor smoking and shifts it to terraces, most homes remain far from completely smoke-free. This reflects a common misconception that smoking on terraces or near windows fully protects others from exposure. A key limitation of this study is that despite the high response rate, the small number of adults e-cigarette users limits the representativeness of the findings related to household vaping.

**Tob. Prev. Cessation 2026;12(Supplement 1):A28**

### Smoke and Aerosol-Free Environments (SAFE) OP50

#### Impact of the Spanish tobacco law on air quality and mortality in mental health wards in Catalonia

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#### BACKGROUND-AIM

Second-hand smoke (SHS) is associated with adverse health effects. Many countries have extended smoke-free policies to public buildings and workplaces, including hospitals. However, mental health units have often been exempted from complete smoke-free bans. The Spanish Tobacco Law 42/2010, implemented in 2011, banned smoking in short-stay mental health units both indoors and outdoors, while maintaining exceptions in medium- and long-term units. The aims of this study are: 1) to assess the effectiveness of Law 42/2010 in reducing SHS exposure in mental health units and the estimated avoidable mortality burden associated, and 2) to describe patients' and staff's perceptions of the ban and their smoking prevalence.

#### METHODS

A repeated cross-sectional study was conducted in 2010 and 2022 in all mental health wards in Catalonia (2010: n=64; 2022: n=68). Air concentrations of particulate matter <2.5 µm (PM<sub>2.5</sub>), a marker of SHS exposure, were measured in a minimum of 4 locations within wards. A brief questionnaire was administered to patients (2010: n=600; 2022: n=744) and staff (2010: n=575; 2022: n=462) to assess their opinions about the tobacco law and their tobacco use. We also estimated avoidable mortality burden due to the law implementation using WHO-recommended PM<sub>2.5</sub> risk functions.

#### RESULTS

PM<sub>2.5</sub> concentrations decreased markedly in 2022 compared to 2010: from 14.0 to 1.6 µg/m<sup>3</sup> in acute units, from 36.0 to 2.2 µg/m<sup>3</sup> in medium- and long-stay units, from 15.7 to 0.9 µg/m<sup>3</sup> in detoxification and dual disorder units, and from 20.3 to 1.0 µg/m<sup>3</sup> in mixed units (all p values <0.05). In 2010, 78.8% of staff members were exposed to PM<sub>2.5</sub> levels above the WHO-recommended limit value of 10 µg/m<sup>3</sup> compared with 3.8% in 2022 (p<0.05). Only half of the staff supported total smoking bans, with no significant changes between 2010 and 2020. In contrast, support among short-stay patients increased significantly (16.8% vs 34.0%, respectively; p<0.05). Smoking prevalence among patients significantly decreased (74.4% to 66.2%; p=0.003), whereas staff smoking prevalence remained unchanged (32.3% to 31.9%). Finally, the smoke-free legislation was estimated to prevent 20% of deaths among active workers between both years.

#### CONCLUSIONS

The Spanish Tobacco Law substantially improved air quality in mental health wards in Catalonia during the studied period, contributing to meaningful health improvement for both patients and staff. Our findings suggest that the legislation has considerably reduced mortality attributable to SHS exposure. However, further efforts are needed to strengthen staff support for smoke-free policies and to expand their access to cessation services, given their persistently high smoking rates.

**Tob. Prev. Cessation 2026;12(Supplement 1):A29**

## Smoke and Aerosol-Free Environments (SAFE) OP77

### Tobacco harm reduction narratives in Hungarian media ads: Introducing an

## innovative monitoring technique

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#### BACKGROUND-AIM

In Hungary, tobacco companies are increasingly using corporate social responsibility (CSR) messages in online and offline media to improve their public image and promote emerging tobacco and nicotine products. Advertising monitoring databases, such as the Kantar Media tobacco ads database, could serve as an adequate source to analyse tobacco industry's CSR-type ads promoting tobacco harm reduction. This study aims to quantify the relative contribution of various CSR-type ads topics of the tobacco industry, publishing media platforms and creative formats to the overall visibility of tobacco industry messages by developing and applying a Contribution Score.

#### METHODS

We conducted a secondary data analysis of media appearances of Hungarian tobacco industry actors registered in the advertising monitoring database of Kantar Media Hungary Ltd between May 2019 and October 2024. The dataset included all new, unique media items per month (n<sub>(tobacco)</sub> = 709) across online and offline platforms, categorized by publication date, net spending, media platform, and creative type. We studied the importance of various factors of specific advertisements (e.g. published on the internet or in a printed journal; what kind of content the ad appears next to, etc.). We used a Contribution Score based on Elo scores (known from sports ranking), which estimates the probability to find a tobacco harm reduction awareness advertisement in the presence of certain factors. The Contribution Score can be considered as the contribution that specific factors give to the promotion of tobacco harm reduction awareness ads.

#### RESULTS

Over the study period, 709 new media appearances were identified, linked to four major tobacco industry actors, with a total of 15639 appearances across online (75.2%) and offline (24.8%) platforms. The Contribution Score analysis identified that the type of media platform has almost twice as much importance in the choice of the ads placements: tobacco harm reduction awareness promotions published mainly in printed media or in sponsored content on the internet, and they appeared less often on internet video platforms and in television. However, the differences in the associated topics are also observable: auto-motor contents are the most exposed to tobacco harm reduction promotions, technology and travel platforms are also popular, while gastronomy and economy topics seems to be less attractive to the tobacco industry.

#### CONCLUSIONS

This study explores how a Contribution Score could capture different topics, platforms, and creative formats that can collectively shape the visibility of tobacco industry's harm reduction narratives. Innovative monitoring techniques of the tobacco industry's messaging tactics in media platforms may provide new evidence to strengthen tobacco advertisement, promotion and sponsorship regulations.

**Tob. Prev. Cessation 2026;12(Supplement 1):A30**

## Smoke and Aerosol-Free Environments (SAFE) OP82

### An air quality monitoring study of indoor public places in Bosnia and Herzegovina

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#### BACKGROUND-AIM

At the time of this study, the primary smoke-free law in Bosnia and Herzegovina (FBiH), the 'Law on the Control and Restricted Use of Tobacco, Tobacco Products, and Other Smoking Products in FBiH', did not sufficiently address the dangers of secondhand smoke exposure in public places. While prohibiting smoking in all closed public spaces, the Law permits designated smoking areas. There was no smoke-free legislation in the Republika Srpska at the time of this study. An air quality monitoring (AQM) assessment in indoor public places was conducted to highlight the need for a stronger and better enforced smoke-free law across the country. This AQM study aimed to assess the air quality in indoor public places in Bosnia and Herzegovina during implementation (FBiH) or prior to passage of a smoke-free law (Republika Srpska).

#### METHODS

From May to July 2024, an AQM study was conducted across two cities in FBiH (Sarajevo and Mostar) and one in the Republika Srpska (Istočno Sarajevo) to compare the levels of air pollution in locations where smoking was observed to air pollution in venues with no smoking. A total of 33 indoor locations, including restaurants, pubs, pastry shops and hookah bars, were tested using a SidePak Aerosol Monitor 520.

#### RESULTS

Data was collected from 33 venues across Sarajevo (n=17), Mostar (n=13), and Istočno Sarajevo (n=4). The geometric mean PM<sub>2.5</sub> of all monitored venues where smoking, ENDS, HTP, and/or hookah use was observed was 72.9 ig/m<sup>3</sup>, 95% CI [46.2, 115.1]. In places with any indoor tobacco or nicotine use, levels of PM<sub>2.5</sub> were over 2.9 times higher than in places without smoking or nicotine use (average level 72.9 ig/m<sup>3</sup> vs. 25.1 µg/m<sup>3</sup>). Where hookah specifically was used, the PM<sub>2.5</sub> was 8.6 times higher (average level of 217.5 ig/m<sup>3</sup>). The average air quality in venues with any tobacco or nicotine use was categorized as 'Unhealthy' according to the U.S. EPA's Air Quality Index. The geometric mean PM<sub>2.5</sub> was higher across venues in the Republika Srpska (88.7 ig/m<sup>3</sup>, 95% CI [20.4, 386.4]) than in FBiH (61.3 ig/m<sup>3</sup>, 95% CI [39.4, 95.3]).

#### CONCLUSIONS

The air quality of indoor public places where smoking takes place is unhealthy and poses significant health risks. FBiH and the Republika Srpska should adopt and enforce smoke-free legislation that requires all parts of all indoor public places to be 100% smoke-free, in alignment with the WHO's FCTC Article 8 and its Guidelines.

**Tob. Prev. Cessation 2026;12(Supplement 1):A31**

## Smoke and Aerosol-Free Environments (SAFE) OP51

### Impact of secondhand tobacco smoke on

### lung function and respiratory symptoms in never-smokers: A systematic review and meta-analysis

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#### BACKGROUND-AIM

Secondhand tobacco smoke (SHS) contains multiple carcinogens and is a recognized cause of respiratory disease. Although the prevalence of SHS exposure is declining globally, several population groups remain exposed. Evidence on the respiratory effects of SHS exposure in never-smokers is inconsistent and often with methodological limitations. This study aimed to summarise the available evidence on the association between SHS exposure and lung function and respiratory symptoms in adults who have never smoked.

#### METHODS

A systematic review with meta-analysis was conducted following PRISMA 2020 guidelines. A bibliographic search was performed in PubMed, EMBASE and Web of Science (November 2024; updated July 2025). Observational studies evaluating SHS exposure in adult never-smokers and reporting lung function parameters or respiratory symptoms were included. Data extraction and quality assessment were performed by peers. Random-effects meta-analyses were conducted when there were at least 3 studies were available. Heterogeneity was assessed using I<sup>2</sup>, and sensitivity analyses and publication bias tests were performed.

#### RESULTS

Twenty-seven studies (n=135363 participants; 67.4% never-smokers) conducted in 17 countries met inclusion criteria. SHS exposure was significantly associated with impaired lung function. Meta-analyses showed a decreased predicted FEF<sub>25-75</sub> (mean difference -5.92%; 95%CI -10.49 to -1.35; I<sup>2</sup> = 0.00%, p=0.76) and FEV<sub>1</sub>/FVC ratio (-2.52%; 95%CI -4.32 to -0.73; I<sup>2</sup> = 58.97%, p= 0.09) in exposed individuals. No significant pooled differences were observed for other spirometric parameters. Sensitivity analyses indicated that the results were influenced by studies with high-intensity occupational exposure. SHS exposure was associated with an increased risk of respiratory symptoms, such as cough (OR 1.44; 95%CI 1.19–1.73; I<sup>2</sup> = 24.58%, p = 0.27) and dyspnea (OR 1.41; 95%CI 1.17–1.70; I<sup>2</sup> = 16.19%, p = <0.01). The association with wheezing was borderline significant (OR 1.75; 95%CI 1.01–3.04; I<sup>2</sup> = 90.29%, p = <0.01), with high heterogeneity. No significant association was found for sputum. Overall studies quality was low to moderate, mainly due to limited exposure characterization. Publication bias test does not suggest publication bias for any of the analyses.

#### CONCLUSIONS

Exposure to SHS is associated with reduced lung function,

particularly with regard to markers of small airway dysfunction (FEF25–75 and FEV1/FVC), and increased risk of respiratory symptoms in never-smoking adults. These findings highlight the need to support the strengthening of public health policies aimed at reducing involuntary exposure to

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## Smoke and Aerosol-Free Environments (SAFE) OP52

### A stakeholder-driven framework for routine policy evaluation: A Belgian case study

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#### BACKGROUND-AIM

Despite declining smoking rates in some countries, tobacco use still accounts for 13.6% of all deaths and 7.9% of disability adjusted life years (DALY) worldwide. In Belgium, in 2023, 18% of people over 15 years smoked. E-cigarette use is rising, with a 4.1% prevalence and higher use among youth. These figures underline the need for strong evidence-based policies supported by systematic monitoring and evaluation, as recommended by international organisations. In Belgium, efforts are underway to have an integrated, flexible framework to enable the routine evaluation of prevention policy measures in Belgium.

#### METHODS

As the national public health institute, we proposed a framework centred on the interconnected policy and indicator cycles, both driven by active stakeholder engagement. The policy cycle covers the key stages of policy design, implementation and evaluation, ensuring that policies are effectively developed, executed, and refined. Parallel to this, the indicator cycle is dedicated to the development of metrics used for predicting the effect of policies before implementation and monitoring their effect after implementation. We tested part of this framework in collaboration with the Belgian Federal Public Service (FPS) of Health. A Health Impact Assessment was conducted to model how policy scenarios could influence smoking behaviour and health outcomes. The scenario were based on the most recent national Interfederal Strategy for a Tobacco-Free Generation: a reduction in tobacco points of sale (POS), and a ban on the visible display of tobacco products at POS.

#### RESULTS

This evaluation involved multiple stakeholders, including FPS Health, FPS Finance and FPS Economy. They provided key data for the modelling and input on barriers and facilitators for each policy scenario. Three POS reduction scenarios were assessed. The first followed current tobacco measures, banning vending machines and sales in supermarkets over 400 m<sup>2</sup>, reducing smoking prevalence by 0.5 percentage points. The second extended the ban to small supermarkets and gas stations, reducing prevalence by 0.9 points. The third introduced licensing, limiting them to one per 10000 inhabitants and banning all other sales, reducing prevalence by nearly 2 points. A display ban was also modelled, with cigarettes and vapes no longer visible in stores, leading to a 7% reduction. Interviews with stakeholders highlighted additional social, economic, and fiscal impacts, including possible negative

effects on retailers and equity concerns for vulnerable groups.

#### CONCLUSIONS

This pilot helped advance evidence-based policymaking in Belgium. The aim is to embed this framework in public health decision-making to improve policy design. Such evaluations can forecast how policies may affect population health, supporting better prioritisation and more effective policy choices. The ambition is to test the framework also in other European countries in the Joint Action on Smoke and Aerosol Free

**Tob. Prev. Cessation 2026;12(Supplement 1):A33**

## Smoking Cessation OP01

### Trends and social determinants of smoking cessation methods in the European Union, 2012-2020: A repeated cross-sectional analysis

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#### BACKGROUND-AIM

Substantial disparities exist in the availability and use of smoking cessation services within the European Union (EU). Socioeconomic status is a well-established determinant of cessation outcomes; however, its influence on the choice of cessation methods, particularly in the context of emerging nicotine-containing products, remains poorly understood in the EU. This study aimed to examine recent trends and social determinants in the use of smoking cessation methods among current and former smokers in 26 EU Member States (MS) and the United Kingdom.

#### METHODS

We analysed data from four Eurobarometer waves (2012-2020): wave 77.1 [2012, n=26751]; wave 82.4 [2014, n=27801]; wave 87.1 [2017, n=27901]; wave 93.2 [2020, n=28300], focusing on current smokers who had ever made a quit attempt and former smokers. Cessation methods were classified as clinically endorsed (e.g., pharmacotherapy, behavioural support), non-clinically endorsed (e.g., e-cigarettes, oral tobacco products), or unassisted. Weighted estimates described trends overall and by smoking status. Multilevel logistic regressions (individuals nested within country-year) modelled the use of each cessation method in relation to sociodemographic factors (e.g., sex, age, education, financial difficulty, and area of residence) and tobacco cessation treatment policies (TCTP) at the national level. Analyses were

repeated for current and former smokers separately.

## RESULTS

Unassisted quitting among current and former smokers increased from 67.8% (95%CI: 66.9-68.7) to 72.4% (71.5-73.3) between 2012 to 2020. Use of clinically endorsed methods was consistently low, ranging between 15.1% (14.4-15.8) and 20.2% (19.4-20.1), while non-clinically endorsed methods peaked to 26.2% (25.3-27.1) in 2014 before falling to 15.0% (14.3-15.7) in 2020. While current smokers reported using assisted methods more often, most former smokers had quit unassisted. Leaving school at 16–19 years (vs  $\leq 15$ : AOR=0.83, 95%CI: 0.77-0.90), financial difficulties (AOR=0.81, 0.77-0.86), and stronger treatment policies (high TCTP vs low: AOR=0.52, 0.28-0.99) predicted lower odds of unassisted quitting. Younger age (15-24 vs  $\geq 55$  years: AOR=2.17, 1.89-2.50) strongly predicted use of non-clinically endorsed methods.

## CONCLUSIONS

Evidence-based smoking cessation programs still have limited reach in the EU, as most smokers try to quit without help. Countries should encourage quitting and guarantee affordable access to evidence-based treatment, prioritise outreach to population subgroups with lower uptake of clinically endorsed methods, and implement appropriate regulation of non-clinically endorsed methods.

**Tob. Prev. Cessation 2026;12(Supplement 1):A34**

## Smoking Cessation

### OP02

#### Postdiagnosis smoking cessation and life expectancy of patients with cancer: A systematic review and meta-analysis

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#### BACKGROUND-AIM

Tobacco use is linked to increased cancer risk, and people who smoke represent a large proportion of newly diagnosed patients with cancer. The fact that smoking cessation at the time of diagnosis can improve the patient's life expectancy is still not broadly understood. We conducted a systematic review and meta-analysis to quantify the survival benefits obtainable by quitting smoking on diagnosis.

#### METHODS

We included articles found in MEDLINE and EMBASE until 2 January 2024. We conducted a random effects meta-analysis, studying correlates of between-studies heterogeneity and exploring

the presence of publication bias. We considered as eligible for inclusion only those articles in which the exposed group consisted of individuals who had ceased smoking either shortly (up to 1 month) before diagnosis or after it (eg, during treatment or follow-up). Consequently, we excluded studies that did not specify the time interval in which smoking cessation occurred.

## RESULTS

There were 36 eligible studies published in 1980-2023, totalling over 17000 actively smoking patients with cancer. The most studied cancer sites were the lung (n=17) and head and neck (n=14). The median proportion of patients who quit on diagnosis was 42.5%. Postdiagnosis cessation was associated with longer overall survival (summary HR (S;)sHR) 0.71, 95% CI 0.65 to 0.78), progression-free survival (sHR 0.64, 95% CI 0.41 to 0.98), disease-free/recurrence-free survival (sHR 0.59, 95% CI 0.43 to 0.81) and improved local/locoregional control (sHR 0.69, 95% CI 0.50 to 0.94). Heterogeneity was generally large; for overall survival, study results were stronger when properly adjusted but did not vary across cancer sites. There was evidence for publication bias, but the results were only marginally altered on imputation of potentially missing studies.

## LIMITATIONS

Systematic differences between patients who quit versus continued smoking (eg, age, tumour stage) may bias the results if not adequately adjusted for in the analyses. Moreover, any prognostic factor that is linked with the likelihood of quitting (eg, pack-years, intensity of smoking, socioeconomic status) may act as a confounder and should be adjusted for in the analyses, but this was not the case for many included studies. Likewise, the impact of smoking cessation on the efficacy of subsequent or ongoing therapy was not systematically addressed, especially considering malignancies treated with targeted and immune therapy, alone or in combination. While we found no heterogeneity based on the cancer site and type, only a few studies focused on cancers other than of the lung and head and neck: this is currently a persistent knowledge gap that remains to be addressed.

## CONCLUSIONS

Postdiagnosis smoking cessation is effective in improving the chances of survival for patients with cancer. Cessation support programmes should be integrated into the routine management of patients with cancer as they may favourably affect survival.

**Tob. Prev. Cessation 2026;12(Supplement 1):A35**

## Smoking Cessation

### OP03

#### Effectiveness of an intervention to improve discussions on smoking cessation in general practice: Results from a randomised controlled trial (tabac-pro)

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#### BACKGROUND-AIM

The majority of smokers want to quit smoking, but most of them try to do it without cessation help. Although support for smoking cessation provided by general practitioners (GP) has

proven effective, such an approach remains quite rare. Based on a literature review about barriers to smoking cessation in patients and to the provision of support by GPs, we designed a behavioural science-based intervention to increase discussions on this topic in general practice consultation. The present study aimed to evaluate the effectiveness of this in-office paper-based intervention by comparing it with a no-intervention control group.

#### METHODS

We conducted an online randomised controlled trial between January and May 2024 among GPs in France. The intervention consisted in sending a kit containing an information sheet for GPs outlining the main stages of a brief advice activity for smoking cessation, questionnaires for patients asking them about their smoking status and, for those who smoked, their previous quit attempts and motivation to quit, as well as a poster to be displayed in each GP's waiting room to encourage smokers to complete the questionnaire. GPs included in the control group received no intervention. The primary outcome was the proportion of smokers with whom GPs had discussed smoking cessation on their last full working day five weeks after the kit had been sent out. The secondary outcome was the probability that GPs provided cessation support (e.g., proposed nicotine replacement therapy (NRT), a follow-up consultation, and/or referred patients to other professionals) on the same day. Exploratory variables included several activities mentioned in the information sheet for GPs.

#### RESULTS

Of the 800 GPs recruited, 641 fully completed the final survey (333 in the intervention group and 308 in the control group). The proportion of smokers with whom GPs had discussed cessation was significantly higher in the intervention group (59.0% vs 52.3%,  $p < 0.05$ ). The likelihood of a follow-up consultation being offered was also significantly higher in the intervention group (73.8% vs 60.3%,  $p < 0.05$ ). NRT proposal and referral were not significantly different between groups (82.4% vs. 77.9%, and 23.3% vs. 21.5%, respectively). The proportion of GPs who evaluated tobacco dependence for at least half of their patients who smoked was significantly higher in the intervention group (33.4% vs 24.3%,  $p < 0.05$ ). Moreover, the proportion of GPs who assessed patients' motivations to quit was notably, albeit not significantly, higher in the intervention group (51.3% vs 43.2%,  $p = 0.056$ ).

#### CONCLUSIONS

Providing simple paper-based tools was associated with a greater likelihood of GPs discussing smoking cessation with their patients. Effects were also observed on support for smoking cessation. This kind of intervention could usefully complement more demanding ones, including training for health professionals, with a view to significantly increasing smoking cessation.

**Tob. Prev. Cessation 2026;12(Supplement 1):A36**

## Smoking Cessation

### OP04

#### Practical implementation of a financial incentives programme to encourage smoking cessation among low-income populations

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BACKGROUND-AIM

Research shows that financial incentives improve the success of stop smoking programmes. Financial incentives to stop smoking (FISS) programmes have been implemented internationally to encourage people who smoke to quit smoking. Irish research indicates that FISS are acceptable for national implementation provided that at risk social groups who can benefit from the initiative are effectively targeted to achieve high and sustainable quit rates. The primary objective was to co-design and subsequently implement a financial incentives programme to help people stop smoking, with input from community members and healthcare professionals. The implementation of this FISS scheme at 3 pilot sites will be formally evaluated through a Health Research Board funded study in partnership with the Royal College of Surgeons in Ireland.

#### METHODS

Three co-design workshops were held in designated Sláintecare communities (areas designated as disadvantaged by the Irish Government) in Limerick, Dublin and Longford. A modified Nominal Group Technique approach was applied to encourage all participants to share their views on the potential structure of the financial incentive intervention and to reach a group consensus by the end of each workshop. 59 participants (including 26 community members) took part across the three workshops.

#### RESULTS

The total potential incentive amount per person was set at €400 for the programme duration (12 months). Incentives are provided in the form of flexible shopping vouchers with physical card and digital options available. The frequency and schedule were set in line with existing quit service dates (Weeks 1, 2, 3, 4, 12, 26 and 52) and with incremental increases until €400 total is reached. Adults residing in the designated pilot areas that hold a General Medical Services Card (means-tested) are eligible to be offered stop smoking care that includes financial incentives. Non-smoking status must be verified at each episode of care by means of a breath carbon monoxide test. To date, 108 unique clients have been accepted into clinics across 3 pilot areas. 75% have set a quit date with 49% successfully quit at 4-weeks and 30% quit at 12-weeks. 191 vouchers have been issued to clients to date.

#### CONCLUSIONS

The target population for this intervention are people that experience economic disadvantage and are at high risk of health inequalities due to smoking. Early analysis of stop smoking service data indicates that the target population is being effectively recruited into the FISS programme. 41% of clients in FISS clinics are unemployed or cannot work due to illness/disability. Over 33% of clients report having a mental illness and 36% report living with chronic disease.

**Tob. Prev. Cessation 2026;12(Supplement 1):A37**

## Smoking Cessation

### OP05

#### Stopping smoking reduces all-cause mortality in lung cancer screening trial participants

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#### BACKGROUND-AIM

The ultimate benefit of lung cancer screening (LCS) is limited by the overwhelming competing risks of death in heavy smokers, but LCS represents a significant opportunity to stop smoking. This study evaluated the cumulative long-term mortality changes achieved by smoking cessation in three prospective LCS trials.

#### METHODS

The association between smoking status and overall mortality was analysed in participants to the MILD, BioMILD, and SMILE trials using Cox proportional hazards models, with smoking status treated as a time-dependent exposure. Baseline sociodemographic (age and sex) and clinical characteristics were summarized as counts (%) for categorical variables and medians with interquartile ranges [IQR] for continuous variables. Age was categorized into tertiles (<55, 56–60, and >60 years), and clinical biomarkers were classified using standard thresholds: Coronary Artery Calcium score (CAC) >400; Forced Expiratory Volume in 1 second (FEV<sub>1</sub>) <80% of predicted value; and Tiffeneau Index (TIF) <70%. Participants contributed person-time to the categories “Smokers”, “Ex-smokers”, or “Quitters” according to changes in smoking behavior during follow-up. Hazard ratios (HRs) and 95% confidence intervals (CIs) were estimated, adjusting for age and sex, using Smokers as the reference group. The cumulative hazard of overall mortality was graphically depicted according to changes in smoking status over time.

#### RESULTS

A total of 7459 individuals were included, with a median follow-up of 9.5 years and 766 deaths; among them, 1827 (24.5%) had stopped smoking before LCS start (Ex-smokers) and 5632 (75.5%) were active smokers. During follow-up, 4040 (54.2%) continued to smoke (Smokers), and 1592 (21.3%) stopped smoking (Quitters). Smoking status was strongly associated with mortality across all clinical subgroups examined. Compared with Smokers, Ex-smokers and Quitters had substantially lower mortality risk, with overall 10-year mortality HRs of 0.64 (95%CI 0.5-0.81) and 0.63 (0.47-0.85), respectively. In clinical subgroups, HRs were 0.50 (0.32-0.77) and 0.44 (0.25-0.79) for 1001 CAC>400, 0.59 (0.37-0.94) and 0.50 (0.28-0.89) for 1031 FEV<sub>1</sub><80%, and 0.55 (0.37-0.8) and 0.47 (0.29-0.76) for 1735 TIF<70%.

#### CONCLUSIONS

Overall, these findings demonstrate a consistent and robust mortality reduction associated with smoking cessation, whether occurring before LCS or during follow-up. The benefit was even more pronounced in individuals with clinical markers indicative of chronic cardio-pulmonary disease.

**Tob. Prev. Cessation 2026;12(Supplement 1):A38**

## Smoking Cessation

### OP07

#### Cytisinicline for smoking cessation in smokers with multiple comorbidities: Real-world outcomes from an extended-dose strategy

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#### BACKGROUND-AIM

In everyday clinical practice, many smokers attempting to quit live with chronic comorbidities and high nicotine dependence characteristics that are not adequately represented in existing cytisinicline trials. These individuals often face repeated treatment failures and present with complex clinical needs that challenge standard cessation approaches. Evaluating cytisinicline extended dose strategy within this real-world, multimorbid population is therefore essential for informing and optimizing treatment strategies tailored to those who struggle the most to quit. Our aim was to evaluate three-month smoking abstinence outcomes following an extended 9 mg cytisinicline regimen in smokers with multiple comorbidities, high nicotine dependence, or previous failed pharmacological quit attempts.

#### METHODS

We analyzed data from 105 consecutive smokers attending the Outpatient Smoking Cessation Clinic of the First Intensive Care Unit and Pulmonary Department of “Evangelismos” Hospital (September 2024–March 2025). Cytisinicline 9 mg/day was administered until abstinence was achieved and for one additional week; dosing was then gradually tapered over a total treatment duration of approximately two months. Participants received five structured behavioral support sessions. Collected data included demographics, comorbidities, Fagerström Test for Nicotine Dependence, smoking history, and spirometry.

#### RESULTS

The cohort had a mean age of 53.1 ± 10.8 years, and 45.7% were male. Comorbidities were common: 22.5% had COPD, 11.1% asthma, 24.7% hypertension, 18.8% depression, and 13.8% anxiety disorders. More than half (56%) were highly nicotine-dependent (Fagerström >7), and 46.9% had previously failed with other cessation medications. Overall, 68% achieved biochemically unverified self-reported abstinence at three months. Quit rates did not differ significantly between highly dependent smokers and those with lower dependence (57% vs. 62%, p=0.7). Among heavy smokers (>30 pack-years), abstinence typically occurred between days 14 and 21. No major adverse events were reported, and spirometric parameters did not differ between quitters and non-quitters.

#### CONCLUSIONS

An extended 9 mg cytisinicline regimen appears safe and effective for smokers with substantial comorbidity burden and previous unsuccessful cessation attempts. These findings highlight the need for future clinical trials to include high-risk, multimorbid smokers and support individualized cytisinicline dosing strategies to improve cessation outcomes in this population.

**Tob. Prev. Cessation 2026;12(Supplement 1):A39**

## Smoking Cessation

### OP08

#### Approach to current smokers with

## obstructive lung disease in tertiary outpatient department in Croatia

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### BACKGROUND-AIM

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 center in Croatia.

### METHODS

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

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.

### CONCLUSIONS

Conclusions. 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.

**Tob. Prev. Cessation 2026;12(Supplement 1):A40**

## Smoking Cessation

### OP09

## Cytisine as smoking cessation aid: Its history, neuropharmacological activity, treatment regimen, safety profile and effectiveness. Brief summary of current scientific knowledge

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### BACKGROUND-AIM

Over 60% of tobacco users want to quit but less than 5% make

successful one-year unassisted quit attempts as tobacco use contributes to strong nicotine addiction. Among effective and scientifically proven smoking cessation aids is cytisine. Since 2011, when Professor Zatonski's team published in New England of Medicine results of the first placebo-controlled clinical trial on the effectiveness and safety of cytisine, millions of Polish smokers have used cytisine for smoking cessation. Then cytisine became widely used not only in CEE countries but also in Western Europe. This paper aims to briefly conclude on the role of cytisine in history of smoking cessation interventions, its pharmacological activity, treatment regimen, safety and clinical and cost-effectiveness.

### METHODS

A brief narrative review of clinical and pharmacoeconomic studies, mainly their systematic and narrative reviews, meta-analyses and randomized clinical trials on cytisine as smoking cessation aid. The search was made in PubMed, Medline, EMBASE, Cochrane Library, Web of Science, Scopus and other research libraries for papers published in peer-review scientific journals in the past 20 years.

### RESULTS

Cytisine is the oldest smoking cessation aid worldwide. It is used in medical practice since over 70 years. Cytisine is plant alkaloid that has a similar chemical structure to nicotine and is a partial nicotine agonist selectively binding to the  $\alpha 4\beta 2$  acetylcholine receptors that mediate nicotine dependence. The standard course of treatment for cytisine (1.5 mg tablets) continues 25 days with a quit date at day 5. The course can be repeated to total a 2-month cycle. Some studies show longer treatment with cytisine (from 40 days to 3 months) to be more effective. Clinical studies shows that cytisine mostly contributes to moderate gastrointestinal adverse events and sleep disorders when compared with placebo and NRT. In comparison with varenicline, cytisine produces a fewer adverse effects. The efficacy of cytisine as smoking cessation aid is well-documented in clinical trials. Both for the primary outcome and longer abstinence, cytisine is more efficient than placebo and NRT but does not have so high efficacy as varenicline. When compared with other smoking cessation aids, the cost of a standard 25-day treatment for cytisine is few times cheaper and significantly more cost-effective.

### CONCLUSIONS

Cytisine is the oldest, safe, efficacious, cheap and cost-effective smoking cessation aid as compared with placebo and NRT. It is less clinically effective than varenicline but produces less side effects and is much cheaper and more cost-effective. Although there is still a need for further comparative clinical trials on cytisine, there is enough evidence to recommend cytisine as essential smoking cessation aid in smoking cessation guidelines, use it in routine medical practice and for its global promotion, especially in developing countries and in lower social strata.

**Tob. Prev. Cessation 2026;12(Supplement 1):A41**

## Sport and Tobacco-Free Promotion

### OP24

## Nicotine in sports: Discrepancies between neurophysiological effects and performance outcomes

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#### BACKGROUND-AIM

Recent literature has documented an increase in nicotine use in sport, primarily administered through smokeless tobacco. Although the World Anti-Doping Agency does not prohibit its use, it monitors consumption patterns. This presentation will provide an overview of current literature and future research perspectives.

#### METHODS

Laboratory-collected data on nicotine prevalence and efficacy on performance across different sports, using various administration routes (snus, transdermal patches, gum, etc.), will be presented. Studies include winter sport athletes, professional footballers, and cyclists. Assessments comprise prefrontal cerebral oxygenation, transcranial magnetic stimulation (TMS), cardiovascular parameters, mental workload, cognitive performance, and core body temperature.

#### RESULTS

In regular snus users, nicotine induces greater psychological satisfaction compared to occasional users. Snus administration increases prefrontal cerebral oxygenation during submaximal exercise, supporting a central stimulant action. TMS data confirm increases in MEP amplitude and latency post-exercise. In footballers, snus intake increases mental workload and reduces perceived readiness. Under abstinence conditions (12h), time to exhaustion and cognitive performance increase (+13%). However, administration via gum or patches exerts neither ergogenic nor ergolytic effects on self-paced cycling performance of ~1h, although systemic delivery is greatest with transdermal patches, and no alterations in psycho-physiological measures are observed.

#### CONCLUSIONS

Results highlight complex and route-dependent effects of nicotine on sport performance. The discrepancy between neurophysiological changes and performance outcomes suggests sport-specific and dose-dependent mechanisms. These findings are relevant for researchers investigating nicotine's ergogenic potential, practitioners advising athletes, and regulatory authorities considering future monitoring or restriction policies. Further research should examine long-term health implications and potential addiction risks in athletic populations.

**Tob. Prev. Cessation 2026;12(Supplement 1):A42**

### Sport and Tobacco-Free Promotion OP29

#### Promoting tobacco-free lifestyles through sport: Insights from a pilot survey of athletes

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#### BACKGROUND-AIM

Athletes are generally associated with healthy behaviours, yet tobacco use persists within this population. Understanding their perceptions and behaviours can help shape targeted tobacco-free sport initiatives.

#### METHODS

A cross-sectional online survey (launched in October 2025 and still ongoing) was administered to adults who regularly practice sport. The questionnaire investigated socio-demographic characteristics, sport participation, tobacco use, and perceptions of tobacco's impact on performance. Data were collected anonymously after informed consent and analysed using SPSS v.22.0.

#### RESULTS

The preliminary analysis included 232 Italian participants (mean age 39 ± 14.6 years; 56% women). Most practiced sport at an amateur level (85.3%) and in individual disciplines (51.7%). The prevalence of current smoking/vaping was 24.8%, with smoking more frequent among team-sport athletes (36.6%) than among those engaged in individual sports (22.8%). Traditional cigarettes were the most commonly used products (10.8%), and smoking initiation occurred mainly during adolescence. Two-thirds of former smokers reported improved performance after quitting. Participants widely acknowledged the negative impact of tobacco on athletic performance and were aware that both cigarettes and new nicotine products represent risk factors for multiple diseases—especially respiratory conditions—and that sport does not offset their harm. Traditional cigarettes were perceived as the most harmful, while stress, habit, and social factors were identified as the main motivations for tobacco use. About two-thirds expressed interest in participating in a sports-based programme promoting a smoke- and vape-free lifestyle.

#### CONCLUSIONS

Tobacco use among athletes remains considerable despite high awareness of associated health risks. The higher prevalence observed in team sports suggests specific behavioural and motivational dynamics. These findings underscore the need for targeted prevention strategies and highlight the potential of sport settings in promoting tobacco-free lifestyles.

**Tob. Prev. Cessation 2026;12(Supplement 1):A43**

### Taxation and fiscal policies OP26

#### Reducing tobacco supplier profits and pricing power: Modelling the impact of a tobacco price cap and tax increase on socioeconomic inequalities in England

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#### BACKGROUND-AIM

The tobacco industry generates substantial profits from selling products that cause significant health and societal costs. These profits enable the industry to use price as a flexible marketing tool, including using market segmentation and pricing strategies to undermine the intended outcomes of increased tobacco taxation. Consequently, there have been calls for a scheme to cap the wholesale price of tobacco products and to offset this with higher taxation, thereby reducing price variation and raising tax revenue - an approach labelled as a 'polluter pays levy scheme' by advocacy organisations in the UK, and a forward looking measure by the WHO Framework Convention on Tobacco Control expert group. This research models the health and economic impact of

such a scheme in England.

#### METHODS

We used the Sheffield Tobacco and Alcohol Policy Model v2.5.1, an individual-level microsimulation, to project tobacco consumption, consumer spending, tax revenues, industry revenues, and health outcomes for adults in England aged 18–89 from 2025 to 2044. We investigated six illustrative scenarios for implementing a wholesale price cap and concomitant tax rises, comparing outcomes against a business-as-usual scenario of an annual 2% real terms tax escalator.

#### RESULTS

Outcomes vary with the level of the price cap, with lower caps and hence higher tax rises yielding larger effects, particularly for the most disadvantaged societal quintile. All scenarios show a narrowed market price distribution, reduced tobacco prevalence, enhanced tax revenue, lower mortality, and fewer hospital admissions. Industry revenues decline, but tobacco user expenditure remains largely unchanged, suggesting the tobacco industry profits are the source of the increased tax revenue. An immediate hard cap could generate £4.9 billion in additional tax revenue by 2029, and by 2044, result in 1636 fewer deaths, 43987 fewer years of life lost, and 10073 fewer hospital admissions. These health impacts would be expected to increase further if at least some of the additional tax revenue were spent on tobacco control related activities.

#### CONCLUSIONS

A tobacco price cap and tax increase would raise a substantial amount of tax revenue, improve health, and reduce health inequalities, while also reducing the scope to use price as a tobacco marketing tool. Countries with high tobacco taxation should consider this to be an attractive endgame measure worthy of future exploration. Tobacco endgame, Strategies and policies to permanently end the tobacco epidemic.

**Tob. Prev. Cessation 2026;12(Supplement 1):A44**

### Taxation and fiscal policies

#### OP54

#### Canada's annual tobacco strategy cost recovery fee on tobacco manufacturers

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#### BACKGROUND-AIM

The Canadian government's annual budget for its national tobacco control strategy is C\$66 million (US\$46 million), including for communication campaigns, cessation and other programs, regulatory development, enforcement, research and surveillance, and international. There have been longstanding advocacy efforts to require tobacco companies to reimburse the Canadian Department of Health for this cost. The tobacco industry opposes such a requirement. In the US, a cost recovery fee has been in place since 2009 to recover the annual cost of the Food and Drug Administration's tobacco control budget. In Canada, a national cost recovery fee was implemented on the cannabis industry following cannabis legalization in 2018. A cost recovery fee is not a tax and is different from government lawsuits for health care costs. The tobacco industry caused the tobacco epidemic and a cost recovery fee helps to hold tobacco companies accountable for government strategy costs to respond to the epidemic. The measure results in added government revenue. Opinion polls

demonstrate overwhelming public support.

#### METHODS

A multi-year advocacy campaign called for a tobacco control strategy cost recovery fee on tobacco manufacturers. This presentation will provide an overview of the campaign and the final regulatory measure adopted.

#### RESULTS

In the 2021 Canadian national election, the three major national parties (Liberal, Conservative, New Democrats) included a cost recovery fee in their platforms. Following the 2021 federal election, legislation with regulatory authority was adopted by Parliament in June 2024 with a unanimous vote supported by all political parties and all Members of Parliament. The Tobacco Charges Regulations were adopted in March 2025. Tobacco companies are required to pay their first invoice based on market share by November 30, 2026. In phase 1, the regulations require tobacco companies to reimburse the Canadian Government for annual costs of the government's tobacco control strategy dealing with tobacco products. At a future point, phase 2 will require vaping companies to reimburse government strategy costs regarding vaping products. Contraband enforcement costs for unpaid taxes are not being recovered.

#### CONCLUSIONS

A fee to recover from the tobacco industry the annual cost of the government's tobacco control strategy is an effective measure that could be implemented by national or subnational governments. The measure is publicly popular and generates revenue for government. Many countries should consider this measure.

**Tob. Prev. Cessation 2026;12(Supplement 1):A45**

### Taxation and fiscal policies

#### OP55

#### Is the industry helping to combat illegal trade? Poland's experience in recent years

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#### BACKGROUND-AIM

The illicit trade in tobacco products represents a persistent challenge to public revenues and health policy in Poland. Over the past decade, tobacco companies have actively positioned themselves as partners of the state in addressing this issue through the sponsorship of research, the provision of training for customs officers and support for public awareness campaigns. Such involvement, however, raises concerns regarding potential conflicts of interest, influence on public policy and the credibility of data informing regulatory decisions. This study examines the scope and implications of cooperation between the Polish government and the tobacco industry in combating illicit tobacco trade. It further evaluates whether such partnerships genuinely advance the public interest or predominantly serve industry objectives.

#### METHODS

The analysis is based on a review of official government documents, media coverage, industry-sponsored research, and formal

agreements between public institutions and tobacco companies covering the period from 2013 to 2025. Particular attention was given to initiatives including industry-funded studies (KPMG, Almares), training programs and structured cooperation with police and customs authorities.

#### RESULTS

For many years, government authorities cited industry cooperation as evidence of progress in combating the informal economy. Joint initiatives, including campaigns carried out within the Business Centre Club and specialized training conducted by tobacco company experts, reinforced the role of industry entities as political partners. However, in March 2025, the government established the Inter-Ministerial Team for Combating the Grey Zone, marking a formal step toward greater institutional independence.

#### CONCLUSIONS

While industry collaboration has coincided with reported reductions in illicit trade, reliance on industry-provided data and expertise undermines transparency and the autonomy of policymaking. Future strategies should prioritize independent, government-led research and exclude industry involvement in legislative, enforcement, or training activities. The newly established inter-ministerial team may enhance state autonomy; however, its effectiveness remains to be assessed.

**Tob. Prev. Cessation 2026;12(Supplement 1):A46**

### Taxation and fiscal policies

#### OP56

#### Easier to afford, more likely to be smoked? Marlboro indices show higher cigarette affordability in the South and East of Europe

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#### BACKGROUND-AIM

Price-related policies have been identified as the most effective and cost-effective tobacco control tool. However, cigarette prices vary widely across Europe and are difficult to compare, not least because of brand availability and income differences. Existing measures of tobacco affordability, such as Relative Income Price (RIP) and Minutes of Labor (MoL), are poorly suited to cross-country comparisons, as their results are distorted by differences in the purchasing power between countries.

#### METHODS

We draw on the Big Mac Index, a well-known comparative measure of purchasing power, and its prior adaptations and applications to public health. Such research designs aim to compare the affordability of the product of interest (in our case, cigarettes) by comparing its price to the price of a relatively-standardised reference product, whose production costs can be expected to vary less across countries. We selected Marlboro, an internationally widespread tobacco brand, as our indicator of cigarette prices, with the price of bottled still water and eggs as our reference products. Price data on Marlboro cigarettes and the two reference products were collected from Numbeo for 2023-2024. Our sample covers 34 countries (including non-EU member states).

#### RESULTS

Our Marlboro-Water and Marlboro-Eggs indices show that

cigarettes tend to be most affordable in the South and the East of Europe, where consumers forgo a lower amount of the reference products by purchasing a pack of cigarettes, thus being less incentivised to reduce or quit their smoking use. We also find strong associations between our indices and smoking rates and (especially) tobacco tax rates in Europe.

#### CONCLUSIONS

By expressing the affordability of cigarettes relative to widely used consumer goods, this study aims to shed further light on the well-established links between tobacco taxes, prices and consumption, highlighting the benefits of policies that aim to reduce cigarette affordability in an intuitive and more accessible fashion for policymakers and the wider public.

**Tob. Prev. Cessation 2026;12(Supplement 1):A47**

### Taxation and fiscal policies

#### OP57

#### Eroding the floor: The weakening impact of the UK's minimum excise tax on tobacco

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#### BACKGROUND-AIM

Tobacco taxes are among the most effective measures to reduce tobacco use, but their success hinges on raising retail prices. Jurisdictions with ad valorem or mixed taxes often employ a Minimum Excise Tax (MET) to set a price floor, preventing very low-priced products from undermining tax policy. The UK introduced an MET on factory-made cigarettes in May 2017, successfully raising prices for economy brands. Since then, the MET and other tobacco taxes have increased annually above inflation, against a backdrop of major market changes, Brexit, and an inflation-driven cost-of-living crisis. This study explores whether the MET has continued to be fully passed on to consumers and therefore remains effective. A question of high significance given the UK's position as a global tobacco control leader with some of the highest prices worldwide, its former EU membership where METs are central to the Tobacco Tax Directive, and the broader global reliance on tax-driven price increases to reduce tobacco use.

#### METHODS

We analysed NielsenIQ weekly brand-level sales data (Jan 2023-Jun 2024) and triangulated with systematic supermarket price tracking, to assess the impact of two above-inflation tax increases (Mar and Nov 2023). The size and speed of retail price adjustments is explored, including the duration before brands crossed the MET threshold. A further 18 months of data, to be collected by end-2025, will support a long-term assessment of the MET's effectiveness.

#### RESULTS

Findings show a substantial proportion of cigarette brands remained below the MET-implied price well after tax increases. In December 2023, over half (54%) of tracked brands were below the MET price point the month after the tax increase, with many still below by the next tax increase. Even by mid-2024, notable gaps persisted, with some economy brands priced nearly £1 under the minimum expected price. Price adjustments were gradual, with the industry appearing to absorb part of the tax increase to keep prices of economy brands low, eroding the MET's role as an effective minimum retail price.

**CONCLUSIONS**

The UK's MET on cigarettes is no longer fully functioning as intended, allowing cheap brands to persist at prices undermining tax policy. These results have clear implications for the EU's Tobacco Tax Directive and for any jurisdiction relying on METs as a de facto price floor. Strengthening policy design will be essential to ensure that METs deliver sustained public health gains.

**Tob. Prev. Cessation 2026;12(Supplement 1):A48**

**Taxation and fiscal policies****OP58****Youth smoking initiation in CESEE countries: A comparative analysis among ten selected countries**

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**BACKGROUND-AIM**

Youth smoking initiation remains a significant public health concern, as early exposure to nicotine increases the likelihood of long-term dependence and continued smoking into adulthood. In Europe, 11.6% of young people aged 13–15 use tobacco, which is the world's highest prevalence of adolescent smoking (WHO, 2025). Effective prevention requires approaches that reflect the social, cultural and economic contexts of youth and benefit from coordinated regional action. Countries in the Central, Eastern and Southeastern European (CESEE) region share similar patterns of tobacco use and regulatory challenges, making comparative analysis valuable for informing evidence-based policies. The aim of this study is to identify key determinants of smoking initiation among young people in ten selected CESEE countries, to support the development of targeted and contextually relevant tobacco control interventions.

**METHODS**

This study employs survival analysis to examine the determinants and timing of smoking initiation among adolescents aged 13–15 years. Data were drawn from the Global Youth Tobacco Survey (GYTS) for ten countries Croatia, Hungary, Bulgaria, Romania, Slovenia, Serbia, Bosnia and Herzegovina, Montenegro, Albania, North Macedonia. Survival analysis allow distinguishing between individuals who have initiated smoking and those who have not, while accounting for the age at initiation. Key explanatory variables include cigarette prices, the tobacco control measures implemented, EU membership, parental smoking status and peer smoking influences, and perceived health risks of smoking.

**RESULTS**

EU membership has a positive effect on delaying smoking onset among youth. The EU Tobacco Products Directive (EU TPD) reinforces this effect. Results show that higher cigarette prices reduce smoking probability and postpone initiation, confirming that excise tax increases are an effective strategy. Examined variables significantly influence age of initiation. Peer effect is the strongest predictor: if a friend offers a cigarette, early smoking becomes far more likely. Parental smoking status also accelerates initiation, especially when both parents smoke. Gender differences persist, with girls starting later than boys. Perceiving smoking as harmful does not significantly affect behavior - awareness alone is insufficient to prevent adolescent smoking.

**CONCLUSIONS**

This analysis expands single-countries' evidence into a broader regional perspective. Results offer valuable insights for policymakers and public health experts in CESEE countries, emphasizing the importance of both pricing and non-pricing tobacco control measures and their harmonization with EU legislation. The impact of policies is moderated by strong social influences (peers and parents). This underscores the need for targeted prevention programs addressing these social drivers. Evidence-based recommendations can guide the development of new policy documents and strengthen comprehensive strategies to decrease youth smoking prevalences.

**Tob. Prev. Cessation 2026;12(Supplement 1):A49**

**Taxation and fiscal policies****OP59****How to calculate the size of a country's e-cigarette shadow market?**

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**BACKGROUND-AIM**

Since 2021, Israel's Ministry of Finance has imposed several tax ordinances on disposable e-cigarettes, pods and e-liquids, aiming to align their tax burden with that of other tobacco and nicotine products, such as packaged cigarettes, RYO, and HTPs. Despite these measures, tax revenues from electronic cigarettes in 2023–2024 remained low, raising a question about whether this is due to low import volumes or strategic tax planning by importers—such as importing components and assembling finished products locally to avoid taxes. To help answer this question, the current study estimated the size of the market for electronic cigarettes. It assesses the potential tax revenue if all market sales were taxed, assuming legal loopholes enabling tax avoidance were closed.

**METHODS**

Data were sourced from the Israel Central Bureau of Statistics (CBS) and Smoke-Free Israel (SFI) continuous research of the years 2022–2024, as follows: population size (CBS); tax rates on HTPs (monopolised by Philip Morris), disposable e-cigarettes, and e-liquid (CBS); usage rates of HTPs, disposable, and refillable e-cigarettes (SFI); value of assembled e-cigarette devices imported to Israel (CBS); and estimated price per disposable e-cigarette and e-liquids (SFI). It was assumed that 100% of HTPs sold in Israel are fully taxed at the excise tax rate.

**RESULTS**

The calculation proceeded in two phases. First, the proportions of the HTP (1.07%, 95% CI: [0.68%, 1.46%]) and e-cigarette (7.59%, 95% CI: [6.59%, 8.59%]) markets were calculated based on the prevalence of use in 2024. According to these figures, there are 711% more e-cigarette users than HTP users. Given a similar tax burden (approximately 64% excluding VAT), expected tax revenue from e-cigarettes should mirror usage ratios. HTP's tax revenue was estimated at 84 million ILS in 2024. Based on the gap in prevalence between these two types, the anticipated revenue from e-cigarettes is 683 million ILS per year (84.17 million ILS  $\times$  (7.11 + 1) = 682.65 million ILS). In the second phase, the total e-cigarette market, including VAT, was estimated at 1.07 billion ILS per year (682.65/64  $\times$  100 = 1,066.64 million ILS). In practice, tax collected from e-cigarettes in 2024 was negligible, indicating that the entire market—valued at 1.07 billion ILS—operates as a shadow market.

## CONCLUSIONS

By comparing usage prevalence and actual tax paid between two tobacco and nicotine product types—one with near-complete tax compliance and one with significant avoidance—it is possible to estimate the size of the market that avoids tax payment. This calculation informed the Ministry of Finance about potential tax income from the e-cigarette market and highlights the scale of tax avoidance by the tobacco and nicotine industry.

**Tob. Prev. Cessation 2026;12(Supplement 1):A50**

## Taxation and fiscal policies

## OP60

### Integrated model for tobacco control: Fiscal measures in Europe and evidence-based advocacy activities by Fondazione Umberto Veronesi ETS.

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## BACKGROUND-AIM

Reducing tobacco use requires multisectoral approaches based on economic and behavioral evidence and prevention models. This paper presents an integrated model that combines the experience of the Fondazione Veronesi (FUV) in prevention, communication and advocacy with the experience of the Scientific Committee for the Fight against Smoking and the research conducted by CERGAS of Bocconi University on the impact of tobacco taxation measures in the EU and outside the EU. The aim is to contribute to the development of evidence-based recommendations for policy makers and to guide strategies to fight smoking, with a particular focus on protecting young people. The work is complemented by a survey conducted by AstraRicerche on the attitudes and behaviors of Italians towards smoking taxation.

## METHODS

Specifically, CERGAS conducted an international review of existing literacy on excise duty structure, governance and prices, with a particular focus on France and Ireland. AstraRicerche carried out a representative national quantitative survey, investigating the acceptability of taxation and expectations regarding the effects of prices on an Italian sample. FUV set up and strengthened its awareness-raising and advocacy activities, integrating the evidence produced by the actors involved in a Policy Paper that summarizes the demands for increased taxation on tobacco and nicotine products for policy makers.

## RESULTS

CERGAS highlights that tax systems with high specific excise duties, planned increases and coordinated governance facilitate a reduction in the consumption of tobacco and new nicotine products. Concerns about smuggling and employment impacts are secondary. The AstraRicerche survey shows that 59.5% of Italians support tax increases. FUV integrates this evidence to support informed positions on the role of taxation, the need to strengthen the protection of young people and the prevention priorities defined by the Fondazione Veronesi Anti-Smoking Committee.

## CONCLUSIONS

This approach shows that integrating fiscal analysis, behavioral data and advocacy is an effective model for guiding evidence-based tobacco control policies. FUV's central role in translating research into recommendations and initiatives to fight tobacco use

is a replicable example for promoting informed public decisions.

**Tob. Prev. Cessation 2026;12(Supplement 1):A51**

## Taxation and fiscal policies

## OP61

### Heated tobacco products use in Serbia

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## BACKGROUND-AIM

Despite the lack of evidence that Heated Tobacco Products (HTP) are less harmful than combustible tobacco products, many countries tax HTP at lower rates than manufactured cigarettes (MC). This creates substantial excise tax gaps and allows the industry to secure large profit margins from HTP sales. This study aims to provide insight into the dynamics of HTP prices, sales, and taxation, and to assess how the tobacco industry shapes HTP and MC pricing strategies in response to tobacco tax policy in Serbia.

## METHODS

The response of tobacco product prices to changes in taxation is typically assessed by measuring the pass-through effect, which indicates how much the retail price of the product increases following a one-unit increase in its taxation. To estimate the extent to which excise taxes on HTP (direct pass-through) and cigarettes (indirect pass-through effect) are reflected in retail prices, a fixed-effects panel regression modeling is applied, using the monthly data on HTP/MC prices and excises for the period 2018-2025. Descriptive statistics are used to illustrate stylized facts on the HTP market developments and to evaluate consumption trends and patterns, affordability and taxation policy.

## RESULTS

Since the introduction of HTP to the Serbian market in 2018, their consumption has been steadily increasing, reaching 6.25% of all tobacco packs sold in 2023. Empirical analysis shows that excise taxes on HTPs have increased substantially, but HTP prices have not followed at the same pace, lowering their tax burden relative to cigarettes. The estimated direct pass-through effect of a 1 RSD increase in the HTP excise tax on the HTP retail price is 0.26, though statistically insignificant. This indicates a weak and imprecise relationship between changes in HTP excise taxes and corresponding changes in retail prices. Taken together, results indicate that the industry absorbed a substantial portion of the rise in HTP taxation, consistent with pricing strategy of tax undershifting. Despite recent increase in tax rates on HTP, excise taxes account for just 13.4% of the retail price of the most sold HTP brand, compared with 61.4% for the leading cigarette brand, underscoring how lower HTP taxation limits government revenue.

## CONCLUSIONS

Although research shows that HTP are harmful even in the short term and that their long-term effects remain uncertain, most European governments still tax them at lower effective rates. Serbia follows this trend, applying substantially lower taxes to HTPs than to manufactured cigarettes. As a result, industry profit margins on HTP remain far higher than on medium-priced cigarettes. Consequently, the industry promotes HTPs as “less harmful” alternatives and encourages smokers to switch by maintaining HTP prices at levels comparable to the most popular

medium-segment cigarette brands. To curb these practices, the tax burden on HTPs should be aligned with that on cigarettes, which would improve public health and generate additional public revenue.

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## **Tobacco Advertising, Promotion and Sponsorship (TAPS) OP21**

### **Illicit digital marketing of new nicotine products in France: A 2024 online observatory**

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#### **BACKGROUND-AIM**

France enforces strict prohibitions on advertising for tobacco and vaping products, yet manufacturers increasingly use digital channels—social media, websites, newsletters and SMS—to promote e-cigarettes, nicotine pouches and heated tobacco. This updated observatory documents illicit online marketing practices in 2024 and evaluates their evolution compared with 2023.

#### **METHODS**

Between January and December 2024, the online activities of 20 major tobacco and nicotine brands were monitored across 30 social media accounts, 20 manufacturer websites and direct communication channels. Advertisements were classified by platform, product type and marketing arguments, and assessed for compliance with age-verification obligations and mandatory warnings.

#### **RESULTS**

A total of 668 illicit advertisements were identified in 2024, a 37% decrease from 2023 but still substantial. Vaping products remained the most promoted (56%), though advertising for disposable e-cigarettes fell sharply (-85%) following the anticipated ban. In contrast, marketing for nicotine pouches increased (+10%) and accounted for 41% of all promotions, reflecting manufacturers' strategic shift towards products not yet fully regulated. Instagram remained the primary vector (62%), confirming deliberate youth targeting, while Facebook and newsletters were used to replicate identical content and maximise reach. Advertising arguments primarily focused on flavour diversity (43%), promotional incentives (21%) and product features such as portability or battery autonomy (19%). Messaging emphasising the ability to use nicotine pouches in smoke-free and vape-free places was also recurrent. "Reduced-risk" narratives remained marginal (≈3%), indicating a preference for lifestyle-based marketing. Compliance was particularly low: 44% of ads displayed no warning, only 50% included both mandatory notices, and just 4 of 19 active accounts were age-restricted. On websites, around 90% allowed account creation or newsletter subscription without age verification, and only two implemented strengthened controls at purchase. Direct marketing intensified markedly, with SMS and email advertisements rising from 45 to 127 (+182%), signalling a shift towards less visible promotional strategies following legal actions.

#### **CONCLUSIONS**

Illicit digital marketing for nicotine products therefore remains pervasive, with manufacturers adapting rapidly to regulatory changes and exploiting gaps in enforcement. Stronger sanctions,

effective age-verification systems, a full ban on online sales of these products and comprehensive restrictions are urgently required to protect minors and curb the attractiveness of these products.

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## **Tobacco Industry Interference OP62**

### **Development of the new tobacco industry manipulation index (ntimi-40): A comprehensive tool for detecting and quantifying industry interference**

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#### **BACKGROUND-AIM**

Despite significant progress under the WHO Framework Convention on Tobacco Control (FCTC), interference by the tobacco industry continues to undermine public health policy through lobbying, economic pressure, misleading corporate social responsibility (CSR) activities, and opaque political influence. Existing measurement tools predominantly rely on retrospective narrative reporting, lack methodological adaptability, and fail to capture hidden or untraceable influence. This study aimed to develop a new, standardized, 40-item measurement instrument - the New Tobacco Industry Manipulation Index (NTIMI-40) - designed to monitor and quantify industry interference using both direct and indirect evidence across countries and over time.

#### **METHODS**

The NTIMI-40 instrument was constructed through structured analysis of FCTC Articles 5.3, 6–16, and associated implementation guidelines, in combination with MPOWER strategic pillars. The index comprises seven modules: (1) policy interference, (2) tax and economic pressure, (3) CSR and legitimacy, (4) unnecessary interaction, (5) transparency, (6) conflict of interest and (7) protective measures. Each indicator is scored 0–4 using a calibrated multi-evidence model that accepts primary documentation (laws, media, legislative records) and secondary expert testimony, acknowledging the inherently covert nature of industry manipulation. A digital web-based scoring architecture was developed to allow continuous data entry, cross-country benchmarking, longitudinal comparison and evidence archiving.

#### **RESULTS**

The development phase resulted in a fully operational scoring framework, a digital response structure, and an accompanying methodological handbook. Mapping of evidence requirements and scoring thresholds enabled the index to detect interference even where public documentation is limited. Expert consultation confirmed that NTIMI-40 fills an existing methodological gap by combining quantitative scoring + qualitative evidence capture and by recognizing indirect and hidden influence as a measurable dimension. Preliminary content validation suggests the tool may enhance national monitoring capacity, support civil society reporting and improve comparability across jurisdictions.

#### **CONCLUSIONS**

The NTIMI-40 represents a next-generation framework for detecting, classifying, and quantifying tobacco industry manipulation. Unlike earlier indices, NTIMI-40 integrates hidden influence signals, expert testimony and transparent scoring matrices, offering a scalable instrument for policy surveillance and advocacy. Next steps include pilot deployment across two to three countries, inter-rater reliability testing, and longitudinal data generation, supporting future integration into global tobacco control surveillance systems.

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## Tobacco Industry Interference OP63

### Tobacco industry interference index 2025: Poland

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#### BACKGROUND-AIM

Tobacco Industry Interference (TII) continues to undermine the effective implementation of public health policies worldwide. In Poland, where the tobacco sector maintains a strong economic and political presence, monitoring industry influence is essential for safeguarding compliance with Article 5.3 of the WHO Framework Convention on Tobacco Control (FCTC). This study aims to assess the extent of tobacco industry interference in public policy in Poland between March 2023 and March 2025 and evaluate the government's response to such interference.

#### METHODS

The analysis is based on the 2025 TII Index methodology developed by the Southeast Asia Tobacco Control Alliance (SEATCA). The assessment uses 20 indicators grouped into seven domains of interference, covering industry participation in policy development, corporate social responsibility (CSR), benefits to the industry, unnecessary interactions, transparency, conflict of interest and preventive measures. Data were obtained from public sources, including legislation, government records, media reports, official registers and social media. Three independent reviewers conducted evidence searches, and all scores were agreed upon jointly to ensure consistency.

#### RESULTS

Poland scored 59 points in the 2025 Index (lower score indicates better protection from industry interference), showing only marginal progress compared with 2023 (62 points). Evidence indicates persistent influence of the tobacco industry in several policy areas. The government accepted industry input on legislative timelines, resulting in extended *vacatio legis* for new tobacco regulations. High-level government officials held undisclosed meetings with industry executives during ongoing legislative processes. British American Tobacco received over PLN 8.9 million in state energy subsidies during 2023–2024. Industry CSR activities continue, although cooperation with public institutions has decreased, shifting focus to private-sector partnerships. Conflict of interest cases were documented, including employment of former tobacco executives in public institutions.

Preventive measures remain weak: Poland lacks a code of conduct for public officials on interactions with the tobacco industry and has no system to implement FCTC Article 5.3 safeguards.

#### CONCLUSIONS

Tobacco industry interference remains a serious obstacle to effective tobacco control in Poland. Despite small improvements, government protection from industry influence is insufficient and largely reactive. To comply with WHO FCTC Article 5.3, Poland should establish transparent procedures for interactions with the tobacco industry, prohibit policy partnerships, introduce conflict-of-interest safeguards, and end reliance on industry-funded research on illicit trade. Stronger institutional independence is needed to protect public health policymaking from commercial interests.

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## Tobacco Industry Interference OP66

### Patterns of influence in EU tobacco tax directive consultation: Evidence from sentiment and similarity analysis

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#### BACKGROUND-AIM

In September–October 2025, the European Commission opened a public consultation on the revision of the EU Tobacco Tax Directive (TTD), which received an exceptionally high volume of submissions across EU Member States and beyond. Public consultations have increasingly been used by the tobacco industry and its allies to amplify opposition narratives, dilute public health voices and strategically influence fiscal and regulatory reforms. This study systematically analyses the full dataset of consultation responses to identify sentiment patterns, recurring arguments, coordinated submission clusters and country-level trends in support for or opposition to the proposed reform.

#### METHODS

We compiled and cleaned a dataset of 18477 consultation submissions scraped from the Commission's "Have Your Say" portal. After pre-processing, we applied a mixed-methods natural language processing (NLP) pipeline comprising transformer-based sentiment analysis, BERTopic-based topic modelling, dense-embedding and hybrid retrieval-based similarity scoring, and near-duplicate detection to flag coordinated or templated responses. A stratified sample of 1,000 records was manually annotated for stance and key argument categories (e.g., illicit trade, cross-border shopping, economic impact, revenue loss, harm-reduction narratives), enabling supervised multi-label classification across the full dataset. Country-level sentiment and argument distributions were examined to explore geographic clustering of opposition.

#### RESULTS

Analysis reveals strong cross-country heterogeneity: while some countries exhibited clusters of supportive responses to excise reform, others showed concentrated opposition to the TTD revision. Topic and word-frequency analyses highlight recurrent themes around illicit trade, novel products, and harm reduction. Similarity clustering identified multiple large groups of near-identical submissions, indicating coordinated or mass-distributed

templates, particularly in countries with active tobacco or nicotine lobbies.

#### CONCLUSIONS

Using advanced NLP techniques alongside systematic manual coding provides strong evidence of duplication and clustering patterns that may distort genuine public engagement. These findings highlight the importance of critically assessing the authenticity of consultation feedback and reinforce the need for greater transparency, appropriate weighting, and strengthened verification mechanisms in policy consultations. By revealing potential influence strategies, this approach enhances transparency in EU tobacco excise policymaking and supports more data-driven public health governance. Overall, the study offers empirical insights that can help strengthen the governance of public consultations in future tobacco tax reforms.

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### Tobacco Industry Interference OP67

#### Hidden ties: How the tobacco industry connects with Swiss universities

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#### BACKGROUND-AIM

This presentation examines the findings of a systematic investigation into collaborations between Swiss universities and the tobacco industry. The study was conducted in a context where the tobacco industry has a significant presence in Switzerland, including the headquarters of two multinational companies and sustained lobbying activities at all political levels. Two well-known earlier cases - the secret employment of Prof. Rylander from the University of Geneva by Philip Morris (PM) and a mandate commissioned by PM on the effectiveness of plain packaging conducted at the University of Zurich - had already revealed the vulnerability of Swiss academia to tobacco industry influence, undermining scientific independence and institutional credibility. These precedents provided an important backdrop for undertaking a broader, systematic investigation.

#### METHODS

A total of 31 academic institutions were asked to report any relationships with tobacco manufacturers since June 2019, including scientific partnerships or institutional engagements, based on requests made under Swiss federal and cantonal Freedom of Information laws.

#### RESULTS

Of the 31 institutions investigated, 16 reported having had some form of relationship with tobacco manufacturers since June 2019. A total of 29 collaborations were identified. Four institutions refused to provide documents relating to these collaborations, revealing a significant lack of transparency. These collaborations form part of a broader strategy by the tobacco industry to influence scientific production and the academic environment. Through links with researchers and institutional involvement within universities, the industry seeks to shape scientific outcomes, strengthen its legitimacy among academic and political actors and ultimately influence tobacco-related legislation to protect its commercial interests. This investigation also highlighted structural vulnerabilities within Swiss universities as well as a limited awareness on the implications of partnering with an

industry whose interest's undermine public health, sustainability commitments and human rights.

#### CONCLUSIONS

The presentation will outline the methodology and results of the investigation and analyse the media impact and public discussions that followed its release.

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### Tobacco Industry Interference OP68

#### Philip Morris international's influence on science on plain packaging of cigarettes: A contemporary case study

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#### BACKGROUND-AIM

For decades, the tobacco industry has used science to fight regulation. Despite this, it is rarely possible to interrogate whether and how it influences scientific processes, since these typically occur behind closed doors. In 2023, however, a research contract was retrieved which reveals how, in 2013, Philip Morris International (PMI) funded academics in Switzerland and Germany to evaluate Australia's 2011 plain packaging legislation. This contract is part of a dataset of 320 documents related to PMI's funding of these academics, collected prospectively over ten years (2014-2024).

#### METHODS

We conducted a document analysis of this dataset to investigate whether, and if so, how, activities carried out by PMI and its allies mirrored strategies previously used by corporations to influence science. We used an evidence-based typology of corporate influence on science, the Science for Profit Model, as an analytic framework.

#### RESULTS

We found PMI and its allies: orchestrated research on plain packaging which aligned with the industry's interests, misrepresented the findings to oppose plain packaging; and sought to influence criteria for determining scientific proof in legal settings.

#### CONCLUSIONS

We conclude that: safeguards against tobacco industry influence on science are not yet sufficient, widespread university-level policies and education are needed, but ultimately, reform to science funding mechanisms is needed to ensure science functions in the public interest.

**Tob. Prev. Cessation 2026;12(Supplement 1):A58**

### Tobacco Industry Interference OP69

#### Targeting trust: How the tobacco industry attempts to engage health professionals

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**BACKGROUND-AIM**

Health professionals play a central role in tobacco control through cessation support, clinical practice and guidelines, research, and policy engagement. Their high levels of public trust and credibility among policymakers, make them strategically valuable to the tobacco industry, particularly as companies claim corporate “transformation” and promote newer nicotine and tobacco products under “tobacco harm reduction” narratives. This study synthesises evidence on how the industry targets health professionals and examines implications for policy and practice.

**METHODS**

A narrative synthesis was conducted drawing on evidence summarised on the TobaccoTactics knowledge exchange platform, including industry documents, and academic and ‘grey’ literature. Tactics were mapped, and a recent documented case of Philip Morris GmbH engaging dental professionals was used to illustrate contemporary strategies.

**RESULTS**

Industry targeting of health professionals is longstanding and appears to have resurfaced with the expansion of newer nicotine and tobacco products. The overarching aim is to shift discourse from ending tobacco use to accepting continued consumption of newer products. Five common tactics used by tobacco companies and linked third-party organisations were identified:
 

- Sponsorship and education: funding conferences, training, and continuing professional development to gain access and implied legitimacy
- Research activity and funding: engaging in and funding research to shape scientific evidence and debate
- Professional association engagement: offering sponsorship or resources to influence organisational positions and clinical guidance
- Clinical, educational and professional media materials: supplying “harm reduction”-framed resources – including articles, sponsored content and commentary in professional magazines – to normalise product substitution
- Recruitment of professional advocates: positioning some clinicians as Key Opinion Leaders (KOLs) to disseminate industry narratives within peer networks

 The dental case shows efforts to normalise e-cigarettes and heated tobacco products by framing them as cessation tools despite unclear long-term evidence and documented risks – a strategy directly conflicting with existing cessation guidelines.

**CONCLUSIONS**

Engagement with health professionals is a strategy used by the tobacco industry to build credibility, influence clinical norms and access policy discussions. These activities risk undermining public health goals, distorting research priorities, and weakening professional independence. Strengthened safeguards are vital, including training to recognise industry influence, mandatory disclosure of conflicts of interest and consistent application of the principles of WHO FCTC Art. 5.3 across health, research and education sectors. Protecting the integrity of health professionals is essential to prevent industry-generated narratives from shaping clinical practice and public health policy.

**Tob. Prev. Cessation 2026;12(Supplement 1):A59**

**Tobacco Industry Interference****OP70****Regulator’s trojan horse: Tobacco industry interference in Spain’s Advisory Council**

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**BACKGROUND-AIM**

Spain’s 1998 tobacco liberalization of its state-owned tobacco monopoly established the Tobacco Market Commission (TMC) and an Advisory Council (AC), formally integrating the industry. While the founding Law 13/1998 initially excluded health matters, subsequent decrees empowered the AC to advise on health policies, assigning the industry seven seats compared to the Health Ministry’s one. This structure contradicts WHO FCTC Article 5.3, which requires insulating health policy from commercial interests. This study examines how industry representatives leveraged this position to influence Spanish tobacco control policies between 2023 and 2024.

**METHODS**

A qualitative document analysis was conducted on all 22 official AC meeting minutes recorded from January 2023 to December 2024, which were obtained through a transparency request. From these records, researchers selected 29 written statements submitted by industry members that demonstrated clear argumentative intent to influence policy debates. These statements were systematically coded to identify political strategies of interference, using the Policy Dystopia Model as a guide. The analysis categorized statements by their intent to obstruct or delay policy, manage unfavorable information, claim entitlement to participate in policy discussions, or threaten legal action.

**RESULTS**

Of the 29 statements analyzed, ADELTA, the association representing tobacco manufacturers, originated the majority (n=21). The most frequently identified strategy was obstructing or delaying policy implementation, particularly regarding the introduction of plain packaging (14 statements). Other observed tactics included managing unfavorable information to deny policy benefits or highlight economic costs (seven statements), asserting a right to participate in policy discussions (five statements), and making veiled threats of legal action, such as claims of trademark expropriation (two statements). These strategies coincided with significant policy setbacks, including the removal of plain packaging from a draft Royal Decree and the renewal of the TMC statute without altering the AC’s composition.

**CONCLUSIONS**

The tobacco industry exploited its institutionalized role on the AC as a “Trojan horse” to actively subvert public health policies, directly contravening Spain’s obligations under the WHO Framework Convention on Tobacco Control Article 5.3. This legally sanctioned position creates a clear, direct channel for policy interference, allowing industry to transform a market administration body into a tool for weakening tobacco control

measures. Urgent reforms are necessary to insulate public health policymaking from vested commercial interests, specifically by amending the TMC statute to explicitly remove the AC's mandate related to public health.

**Tob. Prev. Cessation 2026;12(Supplement 1):A60**

## **Tobacco Industry Interference OP71**

### **Conflict of interest in research on novel tobacco and nicotine products**

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#### **BACKGROUND-AIM**

Conflicts of interest (COI) are a major concern in research on novel tobacco and nicotine products (NTNPs). These products—such as heated tobacco products, electronic cigarettes, and nicotine pouches—are promoted under a “harm reduction” narrative. This study is the first to comprehensively assess COI across all NTNP types, including indirect links through industry-affiliated entities.

#### **METHODS**

We systematically searched PubMed/MEDLINE for NTNP-related publications with English abstracts published from June to December 2024 (PROSPERO: CRD42020137394). For each eligible article, tobacco and nicotine industry-related COI was identified based on authors' affiliations, acknowledgements, funding, and COI statement. Two blinded reviewers classified abstracts as pro-, neutral, or against NTNPs. COIs were identified from author affiliations, funding, acknowledgements, and COI statements.

#### **RESULTS**

Of 867 eligible articles, 6.6% had COI, with over half failing to disclose it in COI statements. Pro NTNP articles accounted for 12.3% overall (107/867), 8.6% among publications without a COI (70/810), and 64.9% among those with a COI (37/57). Articles against NTNPs were 66.4% overall (576/867), 70.3% among publications without a COI (569/810) and 12.3% among those with a COI (7/57). Compared with articles without a COI, the multivariable odds ratio of being pro NTNPs was 19.6 (95% confidence interval: 9.65-39.6) for publications with a COI. Similar patterns were observed for both direct and indirect COIs.

#### **CONCLUSIONS**

Industry-linked research overwhelmingly promotes NTNPs, while independent studies largely oppose them. These findings underscore the need for stricter journal policies to prevent undisclosed or indirect COI and to safeguard the integrity of tobacco and nicotine research.

**Tob. Prev. Cessation 2026;12(Supplement 1):A61**

## **Tobacco-Free Cities OP47**

### **Active and passive smoking among Romanian pregnant women-impact of the comprehensive ban of smoking in public places**

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#### **BACKGROUND-AIM**

This study focuses on Romanian pregnant women and aims to access active and passive smoking among them as well as their correlations and socio-demographic factors influencing these behaviors during different periods of time before and after comprehensive ban of smoking in public places in Romania.

#### **METHODS**

The study was carried out in Cluj-Napoca, a big town from North-West part of Romania, in September-November 2011 (T1) when limited information with regard to lifestyle related behaviors of pregnant women from Romania was available and was repeated in January-March 2016 (T2), just before the implementation of comprehensive ban of smoking in public places in Romania as well as in October-December 2019 (T3) in order to have an evaluation of the evolution during time. It included pregnant women who presented themselves for a medical check-up at general practitioners or the 2 public gynecology clinics from Cluj-Napoca, Romania. The sample consisted of 160 women at T1, 100 women at T2 and 100 women at T3

#### **RESULTS**

At T1 12.5% of women smoked during pregnancy and 8.7% declared smoking in the last month. At T2 both smoking during pregnancy and current smoking increased to 20%, respectively 17%, while at T3 both behaviors decreased to 16% and 12% respectively, but were still a bit higher than at T1. Current smoking was higher among women from rural areas at T1 and among those with lower educational level at T2 and T3. With regard to exposure to passive smoking among smokers, around half were exposed in public places at least once in the last week both at T1 and T2, while at T3 it decreased to one quarter. Moreover, more than 40% were exposed to passive smoking at home at least once in the last week at T1 and T3, while at T2 the percentage was around 70%. Among non-smokers, more than one third were exposed to passive smoking in public places at least once in the last week at T1 and T2, but in 2019 only 7% declared such exposure. The percentage of exposure at home varied between 11%-14% (at T3 and T1) to 20% (at T2). Exposure to passive smoking in public places was higher also among women from rural areas at T1, while lower educational level and younger age was more frequent among those exposed to passive smoking in public places at T2. Exposure to passive smoking in the own house was higher among those with lower educational level at all waves and among participants with lower age of pregnancy at T2 and T3 as well as with lower age at T2.

#### **CONCLUSIONS**

The results call for development, implementation and evaluation of educational programs and measures which stimulate and help healthy lifestyle promotion among pregnant women in Romania, proving at the same time that public health measurements such as comprehensive bans of smoking in public places had a clear impact on Romanian pregnant women.

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## Tobacco-Free Generation OP27

### The role of the EU in achieving a smokefree generation in the Netherlands

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#### BACKGROUND-AIM

The Netherlands has made important progress in the last decade in reducing smoking prevalence. However, to reach the endgame goal of a Smokefree Generation in the Netherlands by 2035, implementation of additional measures is crucial. For this, the Netherlands is not only dependent on the Dutch government to take action, but also on the European Commission in revising the Tobacco Taxation Directive (TTD) and the Tobacco Products Directive (TPD).

#### METHODS

Over recent years, the Netherlands has greatly increased excise taxes on tobacco products. As a result, a pack of cigarettes now costs more than 11 euros. The effects of these price increases have been evaluated by the National Institute for Public Health and the Customs Administration of the Netherlands. The Netherlands has also introduced new product regulation, e.g. a ban on flavoured e-cigarettes. The effects of this ban have been evaluated by the National Institute for Public Health. Other product-related measures, e.g. mandating (very) low levels of nicotine in nicotine products and banning cigarette filters, have been considered in the Netherlands. Legal assessments have taken place to establish whether the Netherlands is allowed to implement these measures nationally under the current TPD.

#### RESULTS

Recent price increases on tobacco products in the Netherlands have stimulated many people to (attempt to) quit smoking, or smoke less. Unfortunately, bordering countries such as Germany and Luxemburg have not followed suit. Prices of tobacco and nicotine products remain much lower in these and other EU countries, which leads to significant cross-border sales. When it comes to product regulation, the Netherlands has introduced a flavour ban for e-cigarettes in January 2024, to address the problem of increased use of flavoured e-cigarettes by youth. But again, cross-border issues occurred, because flavoured e-cigarettes are still available in other EU countries. Regarding certain forward-looking measures, e.g. mandating low levels of nicotine in nicotine products and banning cigarette filters, it is unclear whether the TPD currently allows such measures to be taken at the national level. After all, Article 24 of the TPD states that Member States may in principle not prohibit or restrict the placing on the market of tobacco or related products which comply with the TPD.

#### CONCLUSIONS

A revision of the TTD, increasing minimum excise taxes on nicotine products in the EU, is strongly needed to tackle cross border effects between the Netherlands and other EU countries. A revision of the TPD is urgent as well, to address cross-border purchasing of flavoured e-cigarettes and allow all EU countries to introduce forward-looking product regulations. Tobacco endgame, Strategies and policies to permanently end the tobacco epidemic.

Tob. Prev. Cessation 2026;12(Supplement 1):A63

## Tobacco-Free Generation OP81

### A new vision for a nicotine and tobacco endgame

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#### BACKGROUND-AIM

The Danish Cancer Society's tobacco and nicotine prevention efforts are grounded in the WHO Framework Convention on Tobacco Control (WHO-FCTC). Since 2017, the initiative has centered on a positive, future-oriented narrative focused on protecting children and young people, developed in collaboration with more than 300 partner organizations. Despite significant policy achievements, the tobacco and nicotine industry has rapidly expanded its market with new products appealing to youth. Currently, 29% of 15–17-year-olds use at least one tobacco or nicotine product. This development necessitated a shift from the previous goal—no youth smoking and  $\leq 5\%$  adult smoking by 2030—to an endgame ambition of fully protecting all generations by phasing out commercial sales of tobacco and nicotine products by 2035. The aim was to reframe the national narrative from tobacco and nicotine control toward establishing a political mandate for ending the commercial sale of tobacco and nicotine products in Denmark by 2035.

#### METHODS

The endgame vision was launched in Danish media in September 2025 in partnership with nine national health and civil-society organizations. The campaign included advertisements in major newspapers and extensive media coverage. Subsequently, five additional organizations joined the initiative, and then the endgame approach was integrated into the Smoke and Nicotine Free Future partnership comprising more than 300 partners. Communication efforts were informed by a qualitative study of public attitudes toward different dimensions of phasing out tobacco and nicotine, supplemented by a quantitative survey assessing public support for an endgame strategy.

#### RESULTS

The qualitative findings guided a communication strategy centered on protecting children, young people, and future generations, and on presenting a gradual, stepwise phase-out of tobacco and nicotine sales. This approach successfully mobilized key Danish stakeholders, including organizations representing both children and older adults—groups whose involvement strengthened public legitimacy. The narrative emphasized the potential to eliminate peer pressure in schools, reduce nicotine-related harms among youth, and highlighted that older adults also support ending tobacco and nicotine sales for the benefit of current and future generations and that the phase-out of tobacco and nicotine was not perceived as burdensome for older adults.

#### CONCLUSIONS

An ambitious tobacco and nicotine endgame goal can gain substantial support when communicated through focus on children and youth and a gradual phase-out strategy and backed by a broad coalition representing diverse population groups, particularly children and older adults. Future efforts will focus on sustained advocacy to secure political commitment to ending the

commercial sale of tobacco and nicotine in Denmark.  
**Tob. Prev. Cessation 2026;12(Supplement 1):A64**

## WHO Framework Convention on Tobacco Control (FCTC) OP34

### Canada's successful implementation of warnings directly on individual cigarettes

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#### BACKGROUND-AIM

In 2024, Canada set a world precedent by requiring a health warning to appear directly on individual cigarettes. Such a warning reaches everyone who smokes, in every community, every day, with every cigarette, and with every puff. The warning allows for messages in addition to what appears with packaging. A young person may experiment with smoking by borrowing a cigarette from a friend – the warning on the cigarette will be seen even if the packaging warning is not. In many low-income countries, cigarettes are often sold individually without a package, thus increasing the importance of requiring warnings directly on cigarettes. The warnings prompt discussion, including in the media, during smoke breaks, as well as with kids speaking with their parents after seeing cigarette butts at home. The warnings are recommended for consideration by guidelines under the WHO Framework Convention on Tobacco Control.

#### METHODS

This presentation provides an overview of the rationale for requiring health warnings directly on individual cigarettes, as well as Canada's successful experience with implementation.

#### RESULTS

The measure was implemented in Canada despite tobacco industry opposition, following an advocacy campaign of two decades. In Canada, there are 2 sets of 6 rotated bilingual warnings that were finalized following a regulatory development and consultation process. Requiring health warnings on individual cigarettes is supported by research with more than 30 studies internationally providing evidence of the effectiveness of the measure, including research in Canada after implementation. For decades worldwide, tobacco companies have printed brand names, logos and colours in brand colours on the filter overwrap part of the cigarette. This further demonstrates feasibility, as well as the important communications value of the space used. Warnings directly on cigarettes are highly cost-effective given that health ministries determine the messages, but tobacco companies pay the costs of printing. As of July 1, 2025, Australia became the second country to require warnings on individual cigarettes.

#### CONCLUSIONS

Requiring warnings on individual cigarettes is easy, is evidence-based, reaches everyone who smokes, and has no cost to governments. The experience of Canada and Australia provide examples for other countries to do the same.

**Tob. Prev. Cessation 2026;12(Supplement 1):A65**

## WHO Framework Convention on Tobacco Control (FCTC) OP36

### Advancing tobacco control in Belgium:

### Progress, innovation, and remaining challenges under the WHO FCTC

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#### BACKGROUND-AIM

Belgium ratified the WHO Framework Convention on Tobacco Control (WHO FCTC) in 2005 and has since adopted a wide range of tobacco control measures. In 2022, Belgium launched its "Tobacco-Free Generation" strategy, aiming to reduce smoking prevalence to 5% by 2040. We aimed to assess Belgium's progress toward FCTC implementation, highlight remaining gaps, and identify priorities for further action.

#### METHODS

We reviewed Belgium's official WHO FCTC implementation reports, recent national policy documents, and findings from peer-reviewed and grey literature. Implementation was assessed across major FCTC domains: governance and coordination, smoke-free legislation, packaging and labelling, advertising and promotion restrictions, taxation, industry interference, regulation of emerging products, cessation support, and monitoring systems.

#### RESULTS

Belgium has achieved substantial progress across several FCTC articles. Comprehensive smoke-free legislation is in place and regularly updated. Pictorial health warnings and plain packaging were fully implemented by 2021. Advertising, promotion, and sponsorship restrictions have been significantly strengthened. The Tobacco-Free Generation strategy has improved federal and regional coordination and placed stronger emphasis on youth protection and prevention. However, implementation gaps remain. Tobacco taxation does not yet achieve the levels needed to reduce affordability and consumption at the rates expected under Article 6. Measures to protect public-health policy from industry interference are only partially operationalised and vary between government levels. Regulation of novel nicotine products remains inconsistent and enforcement capacity is limited. Surveillance systems exist but require expansion to better monitor emerging trends. Access to cessation services is uneven and funding remains insufficient for population-wide coverage.

#### CONCLUSIONS

Belgium shows strong legislative alignment with the WHO FCTC and has articulated a clear long-term endgame strategy. Nonetheless, full implementation requires stronger enforcement, clearer safeguards against industry interference, more ambitious tax policy, and enhanced monitoring of emerging products. Accelerating these efforts will be essential for Belgium to achieve its 2040 Tobacco-Free Generation target.

**Tob. Prev. Cessation 2026;12(Supplement 1):A66**

## WHO Framework Convention on Tobacco Control (FCTC) OP78

### How does Europe monitor tobacco use? Gaps and opportunities revealed through a 16-country analysis

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#### BACKGROUND-AIM

Tobacco use remains the leading preventable cause of cancer and NCDs in Europe. With rising use of e-cigarettes and novel smokeless products, countries need robust surveillance to track consumption, guide regulation, and assess progress toward prevention goals. Despite existing monitoring systems, Europe lacks a unified understanding of how countries define, measure, and report tobacco use.

#### METHODS

Within the Joint Action PreventNCD, Work Package 8 aims to strengthen European monitoring systems for cancer and other NCDs. A structured Country Fact Sheet was developed to document monitoring capacities. National experts from 16 countries (Belgium, Bulgaria, Denmark, Estonia, Finland, France, Germany, Greece, Iceland, Italy, Norway, Portugal, Slovenia, Spain, Sweden, Ukraine) completed the sheet, detailing tobacco monitoring systems, definitions, reference values, and target populations. Data were validated by national representatives and analysed thematically to identify commonalities, gaps and areas for improvement.

#### RESULTS

All participating countries monitor tobacco use using national or international surveys, including the European Health Interview Survey and the Health Behaviour in School-aged Children Study. Thirteen align with the WHO definition of tobacco products, and 11 apply reference values for smoking status. Most countries collect data on adults (14) and youth (13), while only Italy monitors elderly populations. International frameworks allow accounting for dual use (cigarettes + e-cigarettes), but they rarely capture multi-product use involving smokeless nicotine products. Most surveys follow 4–5-year cycles, limiting detection of rapidly changing patterns in novel products, though some countries conduct annual or bi-annual surveys. Despite broad implementation, several gaps remain. Participation in international monitoring systems is inconsistently reported, reducing cross-country comparability and benchmarking. Reference values and definitions vary, with three countries not reporting any national benchmarks. Regional data collection is rare, and the coverage and classification of emerging products is uneven. Finally, data granularity for key sub-populations, such as pregnant individuals, remains limited.

#### CONCLUSIONS

Tobacco monitoring systems across participating countries are well established, yet heterogeneity in definitions, frequency, target groups, and coverage of emerging products limits comparability. Greater standardization, expanded monitoring of vulnerable groups and alignment with frameworks such as the European Health Data Space could strengthen consistency. Integrating new data sources alongside traditional surveys reduce self-reporting bias and provide more timely insights into changing patterns. Strengthening regulation of novel products requires robust evidence, but reliance on 4–5-year monitoring cycles limits timely detection of emerging trends. More frequent and harmonized data collection is therefore essential to support evidence-based policy-making.

**Tob. Prev. Cessation 2026;12(Supplement 1):A67**

## Youth and Adolescence

### OP17

#### Patterns in tobacco use transitions among adolescents and young adults who use e-cigarettes alone or with other products

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#### BACKGROUND-AIM

Electronic cigarettes (ECs) can be gateway products for combustible tobacco use among adolescents and young adults (AYAs) in the United States (US). Oral nicotine products (ONPs) are still new to the US market and their potential to influence other tobacco use behaviors has not yet been established. This study examined six-month transitions to combustible tobacco among AYAs who either exclusively used ECs or ECs+ONPs and/or combustible products at baseline.

#### METHODS

Baseline and six-month follow-up data from AYAs who were enrolled in The Generation Z Health Study were examined. This is a longitudinal cohort of AYAs who recently began using nicotine products and/or ECs and live in the US. Data were limited to participants who reported past-30-day exclusive EC, EC+ONP, EC+combustible, or EC+ONP+combustible use at baseline and completed the six-month follow-up survey (N=186, 58% female, ages 15-25). Tobacco use at six months was categorized as: 1) no longer using; 2) using same product(s) as baseline or no increase in risk (e.g., EC+combustible to combustible only); 3) using a product that is less harmful (e.g., EC+combustible to EC exclusive); or 4) using a product that is more harmful (e.g., EC exclusive to EC+combustible tobacco). A chi-square test was used to test the association between baseline tobacco use category and transition at six months.

#### RESULTS

Across all participants, 9% quit, 63% did not change, 13% completely switched to a lower risk product, and 15% switched to a riskier product at follow-up. Among AYAs who used ECs only at baseline, 12% quit, 53% did not change, 0% switched to a lower risk product, and 35% switched to a riskier product. Among AYAs who used ECs and ONPs only, 4% quit, 62% did not change, 16% switched to a lower risk product, and 18% switched to a riskier product. Among AYAs who used EC+combustible, 12% quit, 76% did not change, and 12% switched to a lower risk product. Among AYAs who used EC+ONP+combustible, 7% quit, 64% did not change, and 29% switched to a lower risk product. The chi-square test was significant ( $p < 0.001$ ), indicating that patterns in transitions were different by product use at baseline. In post-hoc chi-square tests, AYAs who used EC+combustible and EC+ONP+combustible did not differ in their transitions at six months. All other groups significantly differed in their transitions.

**CONCLUSIONS**

Most AYAs did not change their tobacco use behaviors six months after enrolling into The Generation Z Health Study. Participants who used ONPs+ECs at baseline had a higher prevalence of switching to a lower risk product compared to exclusive EC use (16% vs. 0%) and a lower prevalence of switching to a higher risk product (18% vs. 35%). Follow-up in this study will continue through a 24-month timepoint. It will be important to continue monitoring transitions to determine if ONPs modify risk among AYAs who use ECs at baseline.

**Tob. Prev. Cessation 2026;12(Supplement 1):A68**

**Youth and Adolescence****OP72**

### Ten-year follow-up evaluation of the anti-smoking educational program “Agenti 00Sigarette – Missione LILT”: A mixed-method study

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**BACKGROUND-AIM**

Youth-focused tobacco prevention programs play a crucial role in shaping long-term health behaviours. “Agenti 00Sigarette – Missione LILT” is an evidence-based school intervention delivered to primary school classes in Milan between 2014–2015. After multiple evaluation phases (T0–T4), the present study aimed to (1) assess the long-term effects of the intervention 10 years later (T5) and (2) explore cognitive, emotional and behavioural representations concerning smoking among different subgroups through a qualitative follow-up (T6).

**METHODS**

A mixed-method design was implemented. At T5, former participants now aged 18–20 completed an online survey. A total of 227 valid cases were collected and included in the analyses. The questionnaire assessed smoking behaviours, lifestyle indicators, nicotine dependence (Fagerström Test), psychological variables (knowledge, attitudes, cognitive representations, regulatory self-efficacy, deviant peers), emotions (PANAS-X) and memory/ appraisal of the intervention. Quantitative analyses were performed using SPSS. At T6, four focus groups (n=32; ≈8 participants each) were conducted, stratified by smoking status (smoker/non-smoker) and intervention exposure (experimental/control). Transcripts were analysed using thematic analysis.

**RESULTS**

At T5, smoking and exposure to tobacco smoke were present but not pervasive. No significant differences emerged between experimental and control groups on smoking prevalence, while smokers—across groups—reported greater exposure to tobacco environments. Nicotine dependence levels were generally low. Knowledge about smoking risks was medium–high overall; however, participants in the experimental group showed more accurate responses on several key items. Their cognitive representations were more articulated and technically informed, particularly regarding harmful substances (e.g., carbon monoxide). Attitudes towards smoking were generally negative, especially among non-smokers. Memory of the program remained

high after 10 years, with clear recall of core activities and overall evaluations were strongly positive. Thematic analysis from T6 indicated differences between groups in emotional associations, cognitive representations, and narratives related to smoking behaviour. Qualitative data revealed nuances not captured by the survey, highlighting contextual factors, peer influence dynamics and long-term reflections on the intervention experience.

**CONCLUSIONS**

Findings suggest that the “Agenti 00Sigarette – Missione LILT” program maintains several long-term educational effects, particularly on knowledge and cognitive representations of smoking. While behavioural outcomes did not differ significantly between groups, both quantitative and qualitative evidence indicate a lasting imprint of the intervention on health-related awareness and emotional representations. Insights from T6 offer actionable indications for updating the program and strengthening future prevention strategies within school-based tobacco control initiatives.

**Tob. Prev. Cessation 2026;12(Supplement 1):A69**

**Youth and Adolescence****OP73**

### Association between social media use frequency and oral nicotine pouch awareness and use among us middle and high school students using National Youth Tobacco Survey data, 2021–2023

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**BACKGROUND-AIM**

Oral nicotine pouches (ONP) represent an emerging nicotine product that has expanded rapidly across global markets, including Europe and North America.. Adolescent use in the United States (US) has increased in recent years, and is expected to rise exponentially. ONPs are frequently promoted on social media platforms such as TikTok through influencer marketing. Given extensive evidence linking social media to promotion of emerging tobacco and nicotine products, social media may similarly influence adolescent ONP awareness and use. However, this relationship remains unexplored. This study aimed to examine associations between social media use frequency and ONP awareness and ever use among US adolescents and assess temporal changes during evolving ONP marketing.

**METHODS**

This cross-sectional study analysed data from the National Youth Tobacco Survey spanning 2021–2023, including 65944 respondents weighted to represent 16.8 million US students (mean age 14.7±2.0 years; 50.3% females; 44.0% Non-Hispanic (NH) White, 25.8% Hispanic, 22.5% NH Black, and 25.3% other NH). Self-reported social media use frequency was categorized as low (never to a few times per week), medium (less than 1 hour to 3–4 hours daily), or high (>4 hours daily). ONP outcomes included awareness (heard of ONP) and ever use. Survey-weighted logistic regression analyses were conducted, controlling for demographic and tobacco-related covariates, with interaction terms testing temporal effect modification, followed by year-stratified analyses.

## RESULTS

Overall, across the three years, ONP awareness was reported by 35.1% [95% confidence interval (CI), 25.7%-44.4%] of students, with 2.1% [95% CI, 0-4.9] reporting ever use. Social media use frequency showed positive associations with ONP awareness across all three years: medium social users (adjusted odds ratio [AOR] =1.42, 95% CI: 1.31-1.54) and high users (AOR=1.37, 95% CI: 1.24-1.52) had greater odds of being aware of ONPs compared to low users. However, no significant associations were found between social media use frequency and ONP ever use. Temporal effect modification emerged for ever use, with significant social media × year interactions ( $p < 0.05$ ) indicating the strength of association between social media use and ever use of ONP varied over time.

## CONCLUSIONS

Social media use frequency was associated with higher ONP awareness across 2021-2023, but no significant association was found for ONP ever use. These findings suggest that adolescents may be directly or indirectly exposed to ONPs through social media platforms. This is concerning given the largely unregulated nature of ONP marketing on social media, although we found no direct association with actual use, which may be determined by multiple factors.

**Tob. Prev. Cessation 2026;12(Supplement 1):A70**

## Youth and Adolescence

## OP74

### Level of nicotine dependence in dual users of electronic and tobacco cigarettes in Polish adolescents – the polnicoyouth study

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## BACKGROUND-AIM

In Poland, the popularity of novel nicotine products, such as e-cigarettes, has increased among youth in recent years. However, their use is also combined with concurrent use smoking of tobacco cigarettes as part of the dual use phenomenon. Examining the level of dependence between the two types of products is also important, since nicotine delivery differs by product type, concentration, and user behaviour. The aim of this study is to determine the level of nicotine dependence in exclusive tobacco cigarette users, exclusive e-cigarette users, and dual users among Polish adolescents, by comparing the values of the Heaviness of Smoking Index (HSI) and Heaviness of Vaping Index (HVI).

## METHODS

The study was conducted in 2020, and it was representative for the overall Polish youth population, with a sample of 16712 secondary school students (aged 15-18) from 200 schools. Participants were recruited through a stratified and random sampling method. Data collection was conducted via Computer-Assisted Web Interviews (CAWI), using a questionnaire based on the Global Youth Tobacco

Survey (GYTS) framework. To address the differing score ranges of the HSI (0–6) and HVI (0–10), values were rescaled ( $HSI \times 10$ ,  $HVI \times 6$ ) to enable meaningful comparisons between the indices.

## RESULTS

As many as 18.3% of participants (N=3064) were dual users, while users of exclusive one type of product made up only 2.9% (N=485) of study sample. The majority of dual users attended technical schools (58.8%), with heavy dual users being predominantly male (62.8%). The most common subtype of dual user was light dual user (6.3%, N=1053), while 2.5% (N=418) were heavy dual users. Heavy dual users had a median HSI of 10 (range of answers 0-60) and HVI of 30 (range of answers 0-42). Daily users who exclusively used e-cigarettes (1.8%) had a median HVI score of 24 (range of answers 0-42), whereas daily users who exclusively used tobacco cigarettes (1.1%) had a median HSI score of 10 (range of answers 0-60).

## CONCLUSIONS

Dual use of tobacco and e-cigarettes is multiple times more popular among Polish adolescent than using only an e-cigarette or tobacco cigarette. Daily concurrent use of both electronic and tobacco cigarettes is associated with a higher level of dependence on both products compared to those who use only one type of product daily. As dual use imposes greater health risks and poses a significant public health concern, tailored prevention strategies are essential and should be implemented during early adolescence.

**Tob. Prev. Cessation 2026;12(Supplement 1):A71**

## Youth and Adolescence

## OP75

### How much pocket money flies into addictions? Spending on nicotine products among underage Italian students

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## BACKGROUND-AIM

The use of nicotine containing products and alcohol among minors remains a public health challenge in Italy. Although the sale of these substances to underage individuals is prohibited in Italy, national surveys indicate widespread use among middle and high school students. While weekly pocket money can be beneficial for developing financial autonomy, they may also provide access to harmful substances. This study aims to estimate how much of Italian adolescents' weekly pocket money is "burnt" on nicotine and alcohol products.

## METHODS

Between November 2024 and May 2025, a questionnaire was administered to 7,390 underage students attending middle and high schools in five Italian regions (Lombardy, Sardinia, Molise, Tuscany, Campania). Data were collected on weekly pocket money, socio-demographic characteristics, and use of nicotine products (conventional cigarettes, e-cigarettes; e-cig, heated tobacco products; HTP, and nicotine pouches; NP) and alcohol consumption. Current users were defined as individuals who had

used a product within the previous 30 days. Analyses estimated weekly spending across the whole sample and by nicotine products use and school grade.

#### RESULTS

Students report an average pocket money of €16.53 per week and spend €3.88 (23.5% of their pocket money) on nicotine and alcohol products. Particularly, they spend 5.2% of their pocket money on conventional cigarettes, 4.9% on HTPs, 4.7% on e-cigs, 0.7% on NP, and 8.0% on alcohol. Among current nicotine users (n=2047, representing 27.7% of the sample), weekly spending on nicotine and alcohol reaches on average €12.73, amounting for 56.0% of their pocket money, while non-users (n=5343) spend only €0.49 on these products, retaining 96.5% of their pocket money. Among current nicotine users, spending on alcoholic beverages represents 15.5% of pocket money, compared to 3.4% among non-users. With increasing age, the proportion allocated to harmful substances increase (from 10.5% of the pocket money among lower-secondary students to 25.8% among students in the fourth and fifth years of upper-secondary school). The composition of expenditure varies by age. Younger students tend to spend more on e-cigs than on conventional cigarettes, but this pattern reverses in higher school grades.

#### CONCLUSIONS

A substantial portion of Italian adolescents' pocket money is spent in harmful products, containing nicotine and alcohol, generating a non-negligible economic burden even during school age. Nicotine users spend nearly half of their pocket money to addictive products, amounting to roughly €700 per year, while non-users preserve almost all of it. These findings suggest that parents should be aware that if their children use nicotine products, a large share of their pocket money is diverted to these purchases; thus, reducing or reconsidering weekly pocket money may help limit access to such substances. Moreover, stricter enforcement of laws prohibiting sales to minors is needed.

**Tob. Prev. Cessation 2026;12(Supplement 1):A72**

## Youth and Adolescence

### OP76

#### Clearing the air - exploring the international public policy responses to the synthetic nicotine crisis: A scoping review

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#### BACKGROUND-AIM

The alarming global rise of synthetic nicotine use among youth is fueled by legislative loopholes<sup>(1,2)</sup>. Internationally, nicotine law definitions often focus on tobacco-derived nicotine, excluding synthetic nicotine products and leading to varying degrees of youth access to synthetic nicotine<sup>(2,3)</sup>. Cross-jurisdictional analysis on synthetic nicotine regulation is necessary to effectively

close existing regulatory loopholes. This review investigates country-level variation in: (1) legislative definitions and (2) regulatory levers (i.e., access, taxation, labeling, promotions, and enforcement) to control synthetic nicotine products.

#### METHODS

Following the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews guidelines, we included English-available legislation from<sup>(3,4)</sup> Organization for Economic Co-operation and Development (OECD) countries and reviewed grey literature to contextualize national approaches<sup>(4,5)</sup>. Data were extracted using a predefined analytical framework. Study researchers participated in consensus meetings to ensure accurate data interpretation. Legal interpretations were validated through correspondence with regulatory authorities.

#### RESULTS

Seven OECD countries were included: Australia, Canada, Ireland, Iceland, New Zealand, the United Kingdom (UK), and the United States (US). Among included countries, Australia and New Zealand have the strictest controls on synthetic nicotine. In Australia, synthetic nicotine access is restricted to a special access scheme<sup>6</sup>. In New Zealand, synthetic nicotine cannot be imported for sale or distribution; import is only allowed by prescription<sup>(7,8)</sup>. Iceland and the US both implemented amendments to existing tobacco legislation to regulate synthetic nicotine sale<sup>9-13</sup>. In contrast, Ireland, Canada and the UK have limited regulation of synthetic nicotine. In Ireland, nicotine pouches are not regulated by the Tobacco Products and Nicotine Products Act (2023), due to their synthetically derived form and are instead unregulated products available to youth<sup>(14,15)</sup>. In Canada, nicotine pouches are regulated as nicotine replacement therapy (NRT) under the Food and Drugs Act rather than the Tobacco and Vaping Products Act resulting in unrestricted access to pouches for youth<sup>16-18</sup>. Canadian Ministerial authorities have been emergently enacted through a supplementary order in 2024, temporarily prohibiting youth access; this emergency regulation is not recognized as ideal nor sustainable<sup>16-18</sup>. In the UK, NRT are regulated as medicines, but the definition of NRT excludes oral products (i.e. nicotine pouches), leaving these consumer products unregulated and available to youth<sup>(19,20)</sup>.

#### CONCLUSIONS

Significant heterogeneity exists in synthetic nicotine legislation across OECD countries. As product innovation accelerates, regulatory frameworks are urgently needed to balance youth protection with equitable access to NRTs when clinically indicated.

**Tob. Prev. Cessation 2026;12(Supplement 1):A73**

## Youth and Adolescence

### OP79

#### Structural fragility in digital public health campaigns: A longitudinal network analysis of U.S. e-cigarette prevention (2014–2023)

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**BACKGROUND-AIM**

Digital public health campaigns often report robust reach and engagement metrics, yet these surface-level indicators obscure deeper structural vulnerabilities that limit long-term influence. When recent e-cigarette prevention campaign messages outperformed oppositional messaging (vaping advocacy and opposition to regulations), prevention campaigns faced structural challenges to maintain visibility and influence within contested digital spaces. We introduce the concept of structural fragility, defined as a measurable decline in the collective capacity of a class of actors to maintain network visibility amid algorithmic and commercial pressures. This study assesses structural fragility among health organizations and professionals across nearly a decade of Twitter discourse surrounding U.S. e-cigarette and tobacco prevention campaigns (2014–2023).

**METHODS**

We classified users into five categories (Health, Commercial, Vape Community, Organic, Other) based on account characteristics. Using longitudinal network analysis, we tracked three dimensions of structural fragility: positional (amplification and centrality), community (fragmentation and homophily), and core (presence in the network's k-core). Annual directed retweet networks were constructed, and metrics such as modularity, in-degree, eigenvector centrality, and k-core composition were computed using NetworkX and Louvain algorithms.

**RESULTS**

Over time, the network (active users) contracted by 99.7%, fragmented into homophilous clusters (modularity rose from 0.16 to 0.84), and displaced health actors from the network's core—most notably in 2015, coinciding with FDA's Deeming Rule proposal. These changes reflected a “bunker effect” where public health persisted in broadcasting content even as they became increasingly isolated from the network's core. Per-capita amplification efficiency for health actors declined by 95.7%, with remaining influence concentrated among a small elite.

**CONCLUSIONS**

These findings challenge exposure-based evaluation models and reveal how platform architectures consistently demote and isolate institutional health communication. We propose a network-informed framework for campaign design and policy resilience that accommodates diverse harm reduction perspectives while safeguarding evidence-based prevention messaging. Implications extend to health professionals, authorities, and policymakers seeking effective digital governance. Tobacco endgame, strategies and policies to permanently end the tobacco

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**POSTER PRESENTATION****Advocacy and Civil Society Engagement  
PP001****Availability and implementation of smoking cessation services across Catalan hospitals**

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**BACKGROUND-AIM**

Smoking cessation interventions in hospitals are recommended to reduce tobacco-related morbidity and mortality. In Catalonia, the Catalan Network of Smoke-free Hospitals (XCHsF)—including 89 of 91 acute hospitals—has promoted cessation services since 2000. This study assesses the availability and implementation of cessation resources and practices across the hospitals in the network, relating this to the level of project implementation and accreditation.

**METHODS**

A cross-sectional study was conducted using an ad hoc online questionnaire sent to the coordinators of the “smoke-free hospital” project of each hospital. It covered the following variables: (1) hospital characteristics (years of membership, number of workers, number of beds, Self-Audit Questionnaire (SAQ) score, hospital regime and the level of accreditation: member, bronze, silver, gold); (2) availability of cessation interventions for inpatients, outpatients, visitors, and staff; and (3) provision of clinical resources (protocols, records, trained professionals, pharmacological treatments). Descriptive analyses summarized services overall and by accreditation level. Chi-square or Fisher's exact tests were used for categorical variables, and trends across accreditation levels were evaluated with Cochran–Armitage (binary) and Cuzick (continuous) tests.

**RESULTS**

A total of 76 hospitals completed the questionnaire, with a median membership of 17 years in the network, which increased with accreditation level. Overall, 78% provided cessation services for inpatients, but availability varied: 40% of member hospitals, 93% of bronze, 89% of silver and all gold hospitals ( $p < 0.001$ ). Staff smoking-cessation services ranged from 50% in member hospitals to 100% in silver and gold hospitals ( $p = 0.005$ ). Overall, outpatient and visitor services were much lower (38% and 6.5% respectively), though silver and gold hospitals consistently showed higher provision of cessation services compared to lower accreditation level hospitals (trend among outpatient  $p = 0.039$ ). Pharmacological treatments for smoking cessation were widely available: 72% offered medication in all inpatients wards, with full availability in 100% of gold hospitals, compared with 78% of silver, 86% of bronze, and 30% of member hospitals ( $p = 0.003$ ). Intervention protocols followed the same gradient, with higher implementation and updated protocols in silver and gold centers.

**CONCLUSIONS**

Most Catalan hospitals offer cessation services for inpatients and staff, but access for outpatients and visitors remains limited. Pharmacological treatments are broadly available, especially in higher-accredited hospitals. Strengthening cessation services provision in lower-accredited hospitals could ensure more equitable access at the population level.

**Tob. Prev. Cessation 2026;12(Supplement 1):A75**

**Advocacy and Civil Society Engagement  
PP002****The Portuguese League Against Cancer's**

## Journey from tobacco prevention to health promotion

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### BACKGROUND-AIM

The Portuguese League Against Cancer (LPCC) has played a key role in tobacco control and health promotion in Portugal. Over time, its strategies evolved from traditional smoking prevention programs to more comprehensive, participatory approaches. This study provides a historical overview of LPCC's tobacco control initiatives, focusing on school-based interventions and the organization's contribution to the national implementation of the WHO Framework Convention on Tobacco Control (FCTC).

### METHODS

A historical and documentary analysis was conducted to examine the LPCC's tobacco control initiatives, particularly school-based interventions. The analysis traced their evolution from early educational projects to the Health-Promoting Schools framework and the participatory "Liga-te" project. The LPCC's broader contribution to FCTC implementation in Portugal was also assessed.

### RESULTS

Early school-based projects, such as the "Smoke Busters Club," fostered a non-smoking identity among students, reinforcing peer influence toward healthy behaviors. Over ten years, around 100000 students and 1000 teachers participated, receiving membership kits symbolizing their role in a non-smoking community. Reports of stigmatization among young smokers highlighted the need for inclusive, empathetic strategies. With the 1994 establishment of Health-Promoting Schools in Portugal, LPCC adopted a holistic perspective on health, considering tobacco among multiple risk factors. The "Liga-te" project introduced project-based learning inspired by the Ottawa Charter, focusing on health literacy and empowering young people to make informed decisions. Activities encouraged critical reflection on smoking behaviors and social pressures. In 2008, Portugal enacted comprehensive tobacco legislation restricting smoking in enclosed public spaces, strongly supported by LPCC advocacy. Since then, smoking prevalence has generally declined, though new nicotine products have led to some recent increases. LPCC continues to actively promote prevention campaigns, cessation support and evidence-based policies.

### CONCLUSIONS

LPCC's journey illustrates a shift from behavioral prevention to community-based health promotion. By integrating education, participation and policy advocacy, LPCC has strengthened its impact, empowered younger generations, and advanced the WHO FCTC's goals, demonstrating the lasting effects of long-term, participatory health initiatives.

**Tob. Prev. Cessation 2026;12(Supplement 1):A76**

## Advocacy and Civil Society Engagement PP003

### Evaluation of the impact of a tobacco control unit website: Analysis of usage, high-impact content and digital communication performance (2025)

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### BACKGROUND-AIM

The Tobacco Control Unit (UCT) of the Catalan Institute of Oncology (ICO) is a leading international centre for tobacco control research, prevention and policy and a WHO Collaborating Centre. The UCT studies the determinants of tobacco use and implements strategies to prevent and reduce smoking, exposure to second-hand smoke, and use of electronic cigarettes in the population. Its mission encompasses research and projects aimed at reducing tobacco-related morbidity and mortality, as well as initiatives such as the Catalan Network of Smoke-Free Hospitals, and a specialised smoking cessation clinic. Since 2016, the UCT has maintained a trilingual website (Catalan, Spanish and English) to disseminate scientific evidence, professional resources and public information. This study aims to comprehensively evaluate the website's performance, identify its most impactful content and analyse key usage metrics.

### METHODS

A descriptive cross-sectional analysis was conducted using data collected between May and November 2025 from Google Search Console and Google Analytics. Key variables included impressions (the number of times a webpage is displayed in search engine results), clicks, click-through rate (CTR) (how effective a piece of content is at motivating users to take action), average search position (the ranking of a webpage in search results), the most visited pages, the geographic distribution of visits and search queries. Usage patterns and content contributions were characterised, and CTR and visibility metrics were compared with benchmarks for similar public health websites.

### RESULTS

The website received 1610 clicks and 82900 impressions (May-Nov 2025), achieving an average click-through rate (CTR) of 1.9% and an average search position of 14.5. The most popular pages were the homepage, information about the benefits of quitting smoking, and the leadership team profiles. Visits originated mainly from Spain, followed by Colombia, Mexico, Chile and the US. High-impact search queries focused on tobacco consumption calculators and metrics (13575 impressions), UCT faculty profiles (3794), events and campaigns (3421), institutional content (3179) and quitting benefits (2913). Other notable queries were tobacco and nicotine products (2821), cessation help (2481), and UCT projects (2088). The top search terms were "pack year calculator", "global network for tobacco-free healthcare services", "cigarette dependence calculator", "smoking cessation", "benefits of quitting" and "tobacco at ICO".

### CONCLUSIONS

The UCT website shows strong and growing visibility, comparable to that of other public health sites. However, its CTR of 1.9% is slightly below the 2.5–3% benchmark often reported for institutional health websites, indicating room for improvement.

Improving search engine optimization (SEO) and applying user-centred design principles could help to establish the website as a global resource for knowledge transfer and tobacco control.

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## Advocacy and Civil Society Engagement PP004

### Revealing regulatory gaps in tobacco advertising: Evidence to strengthen advocacy

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#### BACKGROUND-AIM

Despite Germany's ban on advertising for heated tobacco products (HTPs) and e-cigarettes across TV, radio, print media and internet, promotions for these products is still present on social media. This monitoring study aimed to provide the first time the first systematic monitoring of such advertising on selected social media platforms in Germany. The study's findings were used to inform policy briefs to support legislative efforts towards a comprehensive tobacco advertising ban in Germany.

#### METHODS

The monitoring was conducted in 2023. We collected posts related to e-cigarettes and HTPs in German language on Facebook, Instagram, TikTok and Pinterest. The posts were analysed to determine their origin and the specific products mentioned.

#### RESULTS

We analysed about 700 posts related to e-cigarettes and 400 posts related to HTPs. Retailers and manufacturers were the primary sources of promotional social media posts related to these products. Retailers frequently posted pictures of advertising at the point-of-sale (POS) on social media. While tobacco advertising at the POS is still allowed in Germany, retailers effectively expand tobacco advertising at their sales outlets onto social media platforms through these posts. Manufacturers in turn appeared to intentionally circumvent the advertising ban by showcasing only HTP devices without tobacco sticks inserted.

#### CONCLUSIONS

Despite the advertising ban on the internet, young users of social media platforms remain exposed to promotional content for harmful products. The results of the study reveal significant regulatory gaps, which are being actively exploited by manufacturers and retailers to undermine existing regulations. The findings highlight the urgent need to advocate for a comprehensive ban on all forms of tobacco and e-cigarette advertising, including promotional activities on social media.

**Tob. Prev. Cessation 2026;12(Supplement 1):A78**

## Advocacy and Civil Society Engagement PP005

### Passivesmoke.ch – a national online platform to understand, communicate and act on passive smoke and vaping exposure in Switzerland

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#### BACKGROUND-AIM

Although Switzerland adopted a federal law on protection from passive smoking in enclosed public spaces in 2010, secondhand and thirdhand smoke remain pervasive in private and semi-public environments such as homes, balconies, workplaces and outdoor areas frequented by children. According to the Swiss Monitoring System of Addiction and Non-Communicable Diseases (MonAM, FOPH, 2022), 6.5% of the Swiss population are exposed to passive smoke for at least one hour per day, and 15.8% at least once per week. Yet no national online platform has so far been dedicated exclusively to this issue, providing citizens, professionals and decision-makers with accessible and validated information. The project PassiveSmoke.ch aims to fill this gap by offering a comprehensive digital toolbox to understand, communicate and act on passive smoke and vaping exposure.

#### METHODS

Developed by the Swiss Association for Tobacco Control in collaboration with the Swiss Lung League, PassiveSmoke.ch was conceived through a participatory process involving health experts, legal advisors and communication specialists. The platform integrates four main pillars: 1. Health: evidence-based data on secondhand and thirdhand smoke, focusing on vulnerable groups 2. Rights and procedures: clear legal guidance and model letters to support non-smokers' rights 3. Citizen participation: collection of anonymised testimonies to document real-life experiences 4. Advocacy: an annual national report summarising trends and policy gaps, designed to inform legislative review The site will be available in Switzerland's four national languages to ensure inclusivity and accessibility.

#### RESULTS

The platform has been (will be) launched nationwide in early 2026 as the first Swiss digital resource entirely dedicated to passive smoke and vaping exposure. By combining scientific, legal and civic components, PassiveSmoke.ch offers a new model of health communication that transforms individual concerns into collective knowledge and actionable policy input.

#### CONCLUSIONS

PassiveSmoke.ch represents an innovative, collaborative approach to secondhand and thirdhand smoke prevention. By addressing an unfilled societal need and linking personal experience with public health advocacy, the project aims to strengthen protection, foster mutual respect between smokers and non-smokers, and support the revision of existing smoke-free legislation considering current exposure realities.

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## Advocacy and Civil Society Engagement PP006

### Effective science communication for public health: The tobacco atlas Germany 2025

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#### BACKGROUND-AIM

In Germany, implementation of the WHO Framework Convention on Tobacco Control is lagging behind. In order to counter the intense lobbying as well as further tactics employed by the tobacco

industry, political decision-makers, public health advocates and journalists urgently require reliable scientific information that is both sound and easily understandable in order to inform further tobacco control policies. This multifaceted information must be compiled in a single publication and communicated in a concise, illustrative manner.

#### METHODS

Development of a comprehensive tobacco atlas. Based on data relying on national polls, the number of tobacco-attributable cancer cases and deaths for Germany have been calculated.

#### RESULTS

The Tobacco Atlas Germany 2025 provides a clear and illustrative summary of recent data on tobacco consumption, its health effects, death toll and societal costs. It also covers new devices, such as e-cigarettes and heated tobacco products. Multiple chapters examine the tactics employed by the tobacco industry. The ecological and economic consequences are also explained. The Atlas describes Germany's tobacco control efforts and shortcomings, provides guidance on effective measures and compares German tobacco control with that of other European countries. Information is primarily conveyed through informative graphics accompanied by concise text.

#### CONCLUSIONS

Thanks to its comprehensive and highly illustrative content, the Tobacco Atlas Germany 2025 is a valuable and clear reference book. It is highly regarded by policymakers, public health advocates and

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### Artificial Intelligence and Digital Tools PP008

#### Harnessing artificial intelligence and digital tools for tobacco use prevention and behavioral health: Insights from green crescent Türkiye

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#### BACKGROUND-AIM

Tobacco use and nicotine addiction remain among the most significant preventable causes of morbidity worldwide, particularly affecting young populations who are increasingly exposed to digital environments where risk behaviors evolve rapidly. Traditional prevention approaches are often insufficient to capture early indicators of tobacco initiation and poly-use patterns involving e-cigarettes and emerging nicotine products. This study aims to present the innovative use of artificial intelligence (AI) and digital tools by Green Crescent Türkiye to enhance early detection, prevention and behavioral counselling within tobacco control efforts. The objective is to demonstrate how AI-supported systems can strengthen public health responses, inform policies and scale evidence-based interventions for youth and adults.

#### METHODS

A multi-component digital prevention framework was developed, integrating: 1. AI-driven risk analytics, using anonymized behavioral and engagement data from digital platforms to identify early signs of tobacco and nicotine experimentation 2. Digital health education tools, including interactive e-learning modules,

gamified prevention apps, and targeted content for adolescents 3. AI-supported counselling models within the Green Crescent Counselling Centers (YEDAM), enabling automated needs assessment, personalized behavioural plans, and enhanced case management 4. Population-level data monitoring, combining survey insights, digital behavioural patterns, and trend analyses to inform prevention strategies Descriptive analytics, user engagement metrics, and pilot evaluation data were systematically reviewed.

#### RESULTS

AI-supported risk detection models successfully identified key behavioural markers associated with early tobacco use among adolescents, improving the precision of targeted prevention messaging. Digital education tools reached high engagement levels, with increased knowledge scores and positive shifts in attitudes toward tobacco avoidance. Within YEDAM services, AI-assisted assessment improved counsellor efficiency and contributed to more individualized care pathways. Population-level digital monitoring highlighted emerging nicotine trends, supporting timely policy recommendations and community interventions.

#### CONCLUSIONS

Integrating AI and digital technologies into tobacco prevention efforts offers significant potential for enhancing early detection, tailoring interventions and strengthening behavioural health services. The Green Crescent experience demonstrates that technology-enabled, person-centred approaches can complement traditional prevention strategies, particularly among digitally active youth. Scaling such models across public health systems may contribute to accelerated progress toward tobacco-free societies and support global efforts under the Sustainable Development Goals.

**Tob. Prev. Cessation 2026;12(Supplement 1):A81**

### Artificial Intelligence and Digital Tools PP009

#### Owning the oxygen: Strengthening civil-society narrative capacity in European nicotine and tobacco control

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#### BACKGROUND-AIM

Tobacco- and nicotine-industry actors promote recurring messages that mis-represent the role of commercial nicotine products as part of the public-health solution. Clinicians, youth advocates and patient groups often face these claims in policy, media and clinical conversations, but lack simple, shared resources to explain the evidence clearly. A pilot tool developed during international policy discussions (COP 11) highlighted predictable misinformation patterns and the need for practical communication support. This project aims to build an evidence- and people-centred toolkit that helps public-health partners respond clearly and confidently, with digital tools used to amplify trusted voices.

#### METHODS

Phase I (completed): A pilot web tool (tobacco-bs.com) catalogued common tobacco- and nicotine-industry arguments. It was used during COP11 and assessed through basic analytics and informal

feedback. Phase 2 (in progress / planned): Broader analysis of communication challenges for clinicians, youth advocates and patient groups; co-design of useful formats (short summaries, suggested wording, simple guidance on recognising misleading claims) and development of a practical toolkit that combines evidence translation, clear messaging and easy-to-share digital materials. Piloting with ERS partners will guide refinement.

#### RESULTS

During COP11, the pilot tool was used by 2134 visitors, generating 1487 clicks on nicotine-related arguments. The most frequently triggered tiles were “personal choice”, “we want a smoke-free generation too” and “harm reduction is the solution”. Users said the tool helped them spot repeated claims, understand them quickly and share clear explanations with colleagues. Outside COP, the site also reached people less familiar with tobacco-industry tactics, showing the value of resources that work both inside public-health networks and for wider audiences exposed to these messages. These findings guide phase 2, which will deliver a shared list of common claims, short evidence explanations, ready-to-use messages and simple digital materials for use in clinical, advocacy and media settings.

#### CONCLUSIONS

A simple pilot tool helped users recognise predictable nicotine-industry arguments and highlighted the need for accessible, evidence-based communication support. Building on this, the ongoing project is developing a broader toolkit to help clinicians, youth advocates and patient groups respond more clearly and consistently in fast-moving debates. By combining clinical expertise, lived experience and easy-to-share digital resources, the initiative aims to help public-health actors “own the oxygen” in nicotine-policy

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## Emerging Nicotine Products

### PP011

#### Development of analytical method for determination nicotine and tobacco-specific nitrosamines in the mainstream aerosol of heated tobacco products

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#### BACKGROUND-AIM

Heated tobacco products (HTPs) are an emerging tobacco product that generate nicotine-containing aerosol for consumer inhalation by heating rather than burning tobacco. Given that certain HTPs have been legally introduced to the market in Taiwan as of October 2025, it is need to analyze their aerosols for components that may pose risks to human health. Nicotine and tobacco-specific nitrosamines (TSNAs) are well known the harmful and potentially harmful constituents in tobacco products and their mainstream and are also regulated components in Taiwan. The aim of this study is to establish an analytical method for determining the levels of nicotine and TSNAs in the mainstream aerosol of HTPs.

#### METHODS

The pre-conditioning, environmental control, puffing parameters,

and aerosol collection procedures for HTPs were conducted in accordance with ISO 5501. Mainstream aerosols were collected using a linear smoking machine onto 44 mm glass fiber filter pads. For nicotine analysis, the filter pads were extracted by shaking with 20 mL of isopropanol containing an internal standard, followed by analysis using gas chromatography with flame ionization detection. For TSNAs analysis, the pads were extracted with 20 mL of 100 mM ammonium acetate solution containing isotopically labeled internal standards, filtered and analyzed using liquid chromatography-tandem mass spectrometry. Both methods were validated using the commercially available product. Two concentration levels of reference standards were spiked to the filter pads after completion of the smoking process. The subsequent extraction and analysis followed the established procedures.

#### RESULTS

The results showed that the calibration curve for nicotine ranged from 0.02 to 0.5 mg/mL, and the calibration curve for TSNAs ranged from 0.3 to 50 ng/mL, with correlation coefficients ( $r$ ) greater than 0.99, indicating good linearity. The intra-day and inter-day average recoveries for nicotine ranged from 88.3% to 97.9%, and the coefficients of variation (CV) between 0.8% and 2.2%. The intra-day and inter-day average recoveries for TSNAs ranged from 89.8% to 116.1%, with CV values between 0.5% and 8.2%, demonstrating good accuracy and precision of the analytical method.

#### CONCLUSIONS

The analytical method for nicotine and TSNAs in the mainstream aerosol of HTPs established in this study is appropriate and stable. Due to the current lack of certified reference materials for HTPs internationally, method validation and quality assurance remain challenging. Therefore, continued efforts are needed to seek certified reference material to ensure the accuracy of results. Additionally, the development of analytical methods for other harmful constituents in the mainstream aerosol of HTPs will also be ongoing.

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**Tob. Prev. Cessation 2026;12(Supplement 1):A83**

## Emerging Nicotine Products

### PP012

#### Trends in ever and current use of waterpipe and e-cigarette among young people in the European Union (2012-2023): Analysis of five waves of eurobarometer surveys

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#### BACKGROUND-AIM

Progress in tobacco control is threatened by the rising uptake of alternative tobacco- and nicotine-containing products. Waterpipe and e-cigarettes have been popular alternatives to cigarettes among young people at different time points, driven by appealing flavours, media influence, and misperceptions of their harmlessness. This study aimed to assess trends in the prevalence of waterpipe and e-cigarette ever and current use among young people (aged 15-30 years) in the European Union between 2012 and 2023.

#### METHODS

Data from five waves of the Special Eurobarometer surveys (2012, 2014, 2017, 2020, 2023) conducted in 26 Member States (excluding Croatia and the United Kingdom) were analysed (N=20,503; aged 15-30 years). Weighted prevalence estimates were calculated for ever and current use (defined as at least monthly) of waterpipe and e-cigarettes. Multilevel Poisson regression models assessed temporal trends across sociodemographic subgroups, adjusted for country-level variables (per capita actual individual consumption and tobacco control policy implementation, measured using the Tobacco Control Scale). Adjusted prevalence ratios (APRs) with 95% confidence intervals (CIs) were reported.

#### RESULTS

Between 2012 and 2023, ever waterpipe use declined from 31.1% to 14.9%, and current use from 2.5% to 1.8%. Ever e-cigarette use increased from 12.2% to 25.9%, and current use from 1.6% to 5.3% with variation across Member States. Compared with 2017, ever waterpipe use decreased significantly in 2023 (APR=0.52, 95% CI: 0.41-0.65), while ever e-cigarette use was lower in earlier waves (2012: APR=0.48, 95% CI: 0.41-0.55; 2014: APR=0.72, 95% CI: 0.65-0.81). Current waterpipe use increased in 2020 compared with 2017 (APR= 1.95, 95% CI: 1.31-2.89) but decreased again by 2023. In contrast, current e-cigarette use increased both in 2020 (APR= 1.58, 95% CI: 1.08-2.29) and 2023 (APR= 4.13, 95% CI: 2.59-6.59) relative to 2017. Declines in waterpipe use were greater among males and urban residents, whereas e-cigarette use rose among females, urban residents, and those with financial difficulties.

#### CONCLUSIONS

Between 2012 and 2023, waterpipe use among young Europeans declined, while e-cigarette use increased, showing divergent trajectories for these two products and distinct sociodemographic drivers of experimentation and sustained use. These findings highlight the need for continued surveillance to monitor evolving patterns and emerging vulnerabilities in high-risk subgroups.

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## Emerging Nicotine Products

### PP013

#### Oral nicotine pouch package perceptions among adolescents and young adults who use pouches

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#### BACKGROUND-AIM

The tobacco industry uses images, colors, fonts and information on product packaging to promote their products. The objective of this study was to examine how adolescents and young adults (AYAs) who use oral nicotine pouches (ONPs) perceive products that vary by brand, nicotine concentration and flavor.

#### METHODS

We analyzed data from AYAs who were enrolled in “The Generation Z Health Study”, a longitudinal cohort of AYAs who recently began using ONPs and/or e-cigarettes and live in the United States. Data were limited to participants who reported ONP use at baseline (N=469, 28% female, average age 21 years). The baseline survey included a between-subjects experiment (4 x 2 x 2 factorial) where participants viewed one of 16 images of an ONP package, which varied by brand (On!, Rogue, Velo, or Zyn), flavor (mint or citrus), and nicotine concentration (low or high). After viewing the image, AYAs rated (1-7 scale) the product on four positive (e.g. “likable”) and two negative (e.g., “addictive”) dimensions. Positive and negative scores were created by averaging the positive and negative ratings. T-tests and ANOVA compared positive and negative scores by brand, flavor, and nicotine concentration. Regression models were fit to examine whether demographic factors or nicotine dependence (Hooked on Nicotine Checklist) were associated with perceptions.

#### RESULTS

Positive perception scale scores were highest for Zyn, followed by Velo, Rogue, and On! (the latter two were not significantly different), mint (vs. citrus) products, and high (vs. low) nicotine concentration products. Negative perception scale scores were significantly higher for high (vs. low) nicotine concentration. Sex was associated with positive and negative perception scale scores across all products combined, but in opposite ways: males had significantly higher positive scale scores and females had significantly higher negative scale scores. Nicotine dependence was weakly associated with perception scale scores: as nicotine dependence increased, negative perception scale scores increased (p=0.05).

#### CONCLUSIONS

AYAs rated the packages of the most commonly used brand in the United States, Zyn, more favorably than others. Mint ONPs were also rated more positively than citrus ONPs, which is consistent with research demonstrating the appeal of mint. Females had significantly higher negative ratings and lower positive ratings compared to males, which may be attributed to the fact that smokeless tobacco products have historically been targeted to men. The finding that negative scores were higher for high (vs. low) nicotine concentration ONPs suggests that AYAs who use ONPs may understand that these products can lead to harm.

Overall, our results add to the evidence base that can be used to create policies to regulate ONPs.

**Tob. Prev. Cessation 2026;12(Supplement 1):A85**

## Emerging Nicotine Products

### PP014

#### Trends in tobacco product retail availability between 2023-2025: A multi-city, longitudinal retailer assessment study

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#### BACKGROUND-AIM

Examining 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 tobacco retailer assessments in New York City (NYC), Philadelphia and San Francisco, USA to document trends in product availability in the context of local policy initiatives.

#### METHODS

Stratified, random sampling was used to select a representative sample of licensed tobacco retailers (20% from each city district) in 2023 (n=1575), 2024 (n=1556) and 2025 (n=1300). 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. Descriptive statistics and bivariate tests examined changes over time across the full sample and by city.

#### RESULTS

Data was obtained from 3935 retailers (88.8% success rate). The distribution of store types did not significantly differ between waves. Across all years, availability remained stable for cigarettes (range: 80.7-81.7%) and smokeless tobacco (range: 16.4-16.6%). Cigar availability decreased significantly between Waves 1-3 (54.2% to 42.9%,  $p < .0001$ ), driven by large decreases in NYC (43.2% to 26.6%). Oral nicotine pouch availability significantly increased (28.7% to 39.8%,  $p < .0001$ ), becoming more prevalent in NYC (31.6% to 44.9%) and Philadelphia (16.4% to 24.8%) between 2023-2025. While vaping product availability did not change in the overall sample (34.0% to 33.1%), these products became more prevalent in San Francisco (8.4% to 15.8%,  $p = 0.09$ ) between Waves 1-3.

#### CONCLUSIONS

Availability of most product categories was relatively stable, but the increased prevalence of oral nicotine pouches supports data on their rising popularity. City-level policies may explain other notable trends. For example, NYC's substantial increase on minimum cigar prices in 2018 may discourage retailers from carrying these products over time. While San Francisco effectively banned sales of all vaping products in 2019, the growing number of US Food and Drug Administration marketing orders for e-cigarettes may have contributed to a slight rebound in vaping product availability, as these "authorized" products are permitted to be sold in the city.

**Tob. Prev. Cessation 2026;12(Supplement 1):A86**

## Emerging Nicotine Products

### PP015

#### Non-recognition prohibition as a regulatory firewall: The Turkish model on e-cigarettes and heated tobacco products compared to global approaches

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#### BACKGROUND-AIM

Many countries classify emerging nicotine products - e-cigarettes, heated tobacco products (HTP), nicotine pouches, synthetic nicotine - through explicit legal definitions, then regulate their sale, taxation and access. However, an alternative legislative pathway exists: non-recognition prohibition, where products are neither defined nor licenced, preventing their legal existence in the market. Türkiye represents one of the few countries worldwide (along with Singapore and Brazil) applying this definition-free ban model, prohibiting importation and sale without granting legal identity to the products. This study aims to evaluate the Turkish approach, assess its epidemiological and regulatory outcomes, and compare them to countries that adopted product recognition and regulated availability (e.g. United Kingdom, New Zealand, Canada, Japan).

#### METHODS

A cross-jurisdictional policy review was conducted analysing national legal frameworks, regulatory instruments and market outcomes in Türkiye, Singapore, Brazil, India, New Zealand, United Kingdom and Canada. Primary legal documents (Law No. 4207, Law No. 4733, Presidential Decree on Import Ban, and related enforcement mechanisms) in Türkiye, WHO FCTC guidance, market surveillance reports, and peer-reviewed literature (2016–2024) were examined. Youth vaping prevalence, industry penetration, and enforcement sustainability were compared across countries. The analysis used a legislative taxonomy created for this study: (1) definition-free prohibition, (2) defined but restricted, (3) harm-reduction-based regulated availability.

#### RESULTS

Countries recognising and defining novel nicotine products reported rapid market expansion: youth vaping increased >40% over five years in the UK, while New Zealand saw accelerated uptake following product classification under harm-reduction policy. In contrast, jurisdictions applying non-recognition prohibition (Türkiye, Singapore, Brazil) maintained low commercial penetration, slower adolescent adoption, and limited industry lobbying capacity. Findings suggest Türkiye's current framework—no definition, no licence, no market—functions as a regulatory firewall by preventing legal foothold and subsequent relaxation pressures. Comparative evidence shows that once defined, products become progressively regulatable and thus commercially viable.

#### CONCLUSIONS

The Turkish model demonstrates that prohibition without product recognition may act as a durable long-term control strategy for emerging nicotine devices. Rather than codifying detailed product definitions for e-cigarettes and HTPs—which historically precede partial liberalisation—maintaining non-recognition appears to suppress commercial entry, youth uptake, and regulatory capture.

The study proposes non-recognition prohibition as a viable alternative for countries seeking to prevent novel nicotine markets from forming rather than moderating them post-expansion.

**Tob. Prev. Cessation 2026;12(Supplement 1):A87**

## Emerging Nicotine Products

### PP016

#### Mapping the regulation of novel nicotine products in Europe: Findings from the JA Prevent NCD Nicotine scale

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#### BACKGROUND-AIM

Novel nicotine products - including e-cigarettes, nicotine pouches, and heated tobacco products (HTPs) - are rapidly reshaping European markets. This study aimed to establish a baseline for monitoring nicotine policy developments across Europe and to compare national regulatory frameworks using a standardized nicotine policy scale.

#### METHODS

Within the Joint Action Prevent Non-Communicable Diseases, a nicotine policy scale was developed to assess seven regulatory domains: regulatory context (15 points), product characteristics (15), labelling and appearance (15), availability (15), advertising/promotion/sponsorship (15), price regulation (10), and nicotine-free environments (15), for a maximum of 100 points. Structured online questionnaires were completed by national experts in summer 2025. 22 of 25 participating countries responded (88%).

#### RESULTS

Scores across countries varied widely (mean 57/100). Norway, which bans all three product categories, scored 100, followed by Lithuania (86.7) and Belgium (82.5). The weakest frameworks were observed in Croatia (17.0), Greece (31.4) and Romania (35.9). The greatest regulatory divergence occurred for nicotine pouches: Belgium, Lithuania and Norway prohibit them entirely, while several countries reported minimal or no regulation. By contrast, e-cigarettes and HTPs are more aligned with EU-level standards, though important gaps persist in enforcement and product-specific rules. Wide variation was noted in flavour regulation, with some countries restricting products to tobacco flavours only and others allowing a broad range of characterizing flavours that may appeal to youth. Labelling provisions are inconsistent: textual warnings are common for e-cigarettes and HTPs, whereas pictorial warnings and plain packaging remain rare and many jurisdictions fail to apply labelling rules to nicotine pouches. Advertising bans were strongest in Denmark, Finland, Iceland and Slovenia (15/15). Price regulation was uneven; only 13 countries tax nicotine pouches and excise rates vary substantially. Availability rules generally set a minimum purchase age of 18 years, yet online sales often rely on weak self-declaration systems.

#### CONCLUSIONS

The nicotine policy scale reveals a highly fragmented European

regulatory landscape for emerging nicotine products. Norway demonstrates the most comprehensive approach, while Croatia shows the weakest regulatory framework. By consolidating complex policy information into a structured and comparable metric, the scale complements existing tools such as the tobacco control scale and captures regulatory dimensions not previously assessed. It offers a valuable baseline for cross-national comparison, identifies critical regulatory gaps and supports ongoing monitoring of nicotine policy developments across Europe.

**Tob. Prev. Cessation 2026;12(Supplement 1):A88**

## Emerging Nicotine Products

### PP017

#### Market surveillance of electronic cigarettes and refill containers in Sweden: Compliance with design and content requirements

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#### BACKGROUND-AIM

The Public Health Agency of Sweden serves as the national market surveillance authority for electronic cigarettes, tobacco products, and herbal smoking products. Its mandate is to ensure compliance with legal requirements, protect consumer health and maintain fair competition. Market surveillance is conducted postmarket, with economic operators responsible for compliance. While voluntary corrections are encouraged, enforcement measures such as injunctions and prohibitions may be applied when necessary. The market for electronic cigarettes and refill containers is highly dynamic, driven by rapid innovation in flavors, design, and technology, often targeting young consumers. In 2025, the Agency prioritized monitoring these products to ensure compliance with design and content requirements.

#### METHODS

Inspections targeted electronic cigarettes and refill containers sold through physical and online retailers on the Swedish market. Products were procured and assessed for technical specifications and chemical composition. Compliance was verified against national and EU legislation regarding maximum permissible liquid volume, nicotine concentration, and ingredient declarations. Accredited independent laboratories performed analyses using the following approaches: ñ Fill mass determination: a gravimetric method was applied by weighing intact samples, removing the liquid, rinsing, drying, and reweighing to calculate e-liquid mass ñ Density determination: e-liquid was collected, weighed and measured at 20 °C to determine the mass-to-volume ratio ñ Nicotine concentration analysis: conducted according to Health Canada official method T-301:2017 (modified), based on high-performance liquid chromatography (HPLC)

#### RESULTS

Several products were prohibited for exceeding the legal maximum liquid volume, confirmed through design assessment or laboratory analysis. Approximately 75 % of the analyzed products exceeded the legal maximum liquid volume. Regulatory action also targeted products containing 6-methylnicotine (Metatin), a synthetic alkaloid marketed as NoNic or AltNic. Scientific assessment concluded that 6-methylnicotine falls under the statutory definition of nicotine, subjecting these products to full regulatory requirements, including notifications, product standards, labelling and health warnings.

## CONCLUSIONS

Findings underscore the need for continued surveillance and enforcement to ensure compliance, protect consumers and maintain fair competition. Ongoing monitoring and information efforts are essential to address emerging risks, including novel products and nicotine-like substances.

**Tob. Prev. Cessation 2026;12(Supplement 1):A89**

## Emerging Nicotine Products

### PP018

#### Patterns of nicotine pouch use among young people in Denmark: A latent class analysis

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#### BACKGROUND-AIM

With the recent popularity in nicotine pouch use, there's an emerging need for comprehensive analyses on use patterns and the socioecological factors that influence these patterns. This study aims to identify subgroups of young nicotine pouch users and examine associated sociodemographic, risk-behavioral, health-related, social and use-related factors.

#### METHODS

Data were drawn from a nationally representative cross-sectional survey conducted in 2024 among Danish young people aged 15-29 years. The analytical sample included 998 persons who reported current use of nicotine pouches. Latent class analysis was used to identify user subgroups based on use characteristics indicators: frequency, quantity, nicotine strength, duration per pouch, and sleeping with pouches. Multinomial logistic regression models examined associations between class membership and socioecological factors, including demographics (age, gender), risk behavior (use of other tobacco/nicotine products, binge-drinking, lifetime hash use, risk-willingness), health status (mental and physical health), social (peer use, friends/parental attitudes), and use-related factors (perceived harm/addictiveness, cessation behavior, pouch use in school, motives for use). All measures were self-reported, except for gender and age.

#### RESULTS

Three distinct latent classes of nicotine pouch users were identified: occasional use (35.9%), daily, moderate use (55.7%), and daily, heavy use (8.4%). Compared with occasional users, daily heavy users were less likely to be female (RRR=0.46, 95% CI: 0.24-0.90) and more likely to be aged 25-29 years (RRR=2.45, 95% CI: 1.11-5.39). Both daily user groups reported lower risk of recent binge drinking episodes, poorer physical health, and higher exposure to peer pouch use. They were more likely to express concerns about addictiveness, report dependence, think about quitting, and use pouches during school hours. Motives for use also differed; daily users more often used nicotine pouches for smoking cessation or due to dependence, whereas occasional users were more likely to use them for pleasure or mood enhancement. Few differences emerged between daily moderate and daily heavy users, although heavy users were older, more likely to use e-cigarettes, reported greater parental approval of pouch use, and pouch use during school hours.

#### CONCLUSIONS

Three distinct subgroups of nicotine pouch users were identified, with daily, moderate use being the most prevalent subgroup,

reflecting substantial heterogeneity in use patterns, motives, and associated behaviors. These findings highlight the need for differentiated intervention and cessation strategies targeting varying levels of use intensity and user profiles.

**Tob. Prev. Cessation 2026;12(Supplement 1):A90**

## Emerging Nicotine Products

### PP019

#### Nicotine strength vs. flavor preferences among young and older adults: Implications for vaping product regulation

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#### BACKGROUND-AIM

Vaping products are available in a wide range of flavors and nicotine concentrations. Research suggests that sweet and fruity flavors appeal to young people and that this is an industry strategy to target them. However, the relative influence of these factors compared to older age groups remains underexplored. Understanding the preferences of young and older adult vapers is crucial for developing effective global regulations, particularly in regions where nicotine limits are absent. This study aimed to evaluate the relative importance of nicotine concentration versus flavor in product choice and to draw conclusions regarding regulatory strategies.

#### METHODS

Between 2019 and 2021, data were collected in Buffalo, New York, USA from 126 adults aged 18-54 who reported using flavored nicotine vaping products daily for at least six months. Participants completed a survey detailing their preferred flavor categories and nicotine concentrations. Each participant also provided an e-liquid sample, which was analyzed in a laboratory using gas chromatography-mass spectrometry (GC-MS) to determine the actual nicotine content. To evaluate the accuracy of self-reported information, the nicotine concentrations obtained in the survey responses were compared with laboratory results using Cohen's kappa coefficient. Participants were also presented with a hypothetical scenario in which their preferred nicotine concentration was unavailable in their usual flavor and asked how they would respond. Differences between younger adults (18-26 years, n=61) and older adults (27-54 years, n=65) were analyzed using chi-squared tests.

#### RESULTS

Fruit and sweet flavors were highly popular in both age groups (83.6% vs. 76.9%). Young adults preferred higher nicotine concentrations compared to older adults ( $\geq 24$  mg/mL: 50.8% vs. 30.8%), a trend confirmed by laboratory analysis ( $\geq 24$  mg/mL: 44.4% vs. 23.4%), with high agreement between self-report and lab measures (Kappa: 0.73 vs. 0.71). Most participants indicated they would maintain their usual nicotine concentration while switching flavors if their preferred flavor was unavailable (60.7% vs. 60.0%).

#### CONCLUSIONS

Sweet and fruit flavors appeal to older people as well as young adults. Notably, the study showed that younger adult vapers

prioritize higher nicotine concentrations, which highlights potential dependence risks. Both younger and older adults consistently prioritize nicotine strength over flavor, suggesting that while flavors attract, it is nicotine that retains users. These findings emphasize the need for global regulation of nicotine concentrations in vaping products to reduce potential harm and prevent escalation of use among young adults. However, emerging evidence suggests that such regulation may be ineffective, as reducing nicotine concentration has been shown to alter puffing behavior. Therefore, when developing comprehensive nicotine content regulations, other product characteristics, including device power and user puffing behavior, should also be considered.

**Tob. Prev. Cessation 2026;12(Supplement 1):A91**

## Emerging Nicotine Products

### PP020

#### Analysis of additives that enhance appeal in heated tobacco products and heated herbal products

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#### BACKGROUND-AIM

The tobacco industry has been introducing new tobacco and related products (TRPs) as reduced-harm alternative to – or quitting aid for – smoking, seemingly to reduce smoking-related deaths. A group of these TRPs are heat sticks, available with tobacco (heated tobacco products (HTP)) or another herbal substance like cellulose with tea extract (heated herbal products (HHP)). To maximize the attractiveness of heat sticks, additives are used. The industry's freedom to use such additives, like flavorings, depends on national product regulations. For example, characterizing flavors in HTPs are prohibited in the Netherlands (NL) and Greece (GR), while they are allowed in HHPs. In Switzerland (CH), no such ban is in place at all. This research provides a comprehensive overview of the composition of appeal enhancing additives of different HTP and HHPs from different countries with varying regulations.

#### METHODS

Multiple brands and flavors of HTPs (brands N=5; flavors N=23) and HHPs (N=2; N=6) are included. HTPs are sourced from NL, CH, and GR, while the HHPs are from NL and GR. Presence and estimated quantities of sugars and sweeteners are measured via high-performance liquid chromatography with evaporative light scattering detection (HPLC-ELSD); and of flavorings, cooling agents, pH reducing substances, nicotine and humectants via gas chromatography-mass spectrometry (GC-MS).

#### RESULTS

In CH and GR, more non-tobacco flavored HTP variants are found on the market compared to NL. GC-MS analysis of HTPs

and HHPs shows that the largest variability between products lies in flavorings and cooling agents. Over thirty unique flavorings are detected. Two Swiss HTPs, described as cooling and fruity, are mainly responsible for this large number, with 12-16 flavorings in a product. Overall, few flavorings are widely used in both HTPs and HHPs; benzyl alcohol, glycerol acetate, 3-hexanol, vanillin, and ethyl vanillin. Remarkable in the cooling agents is that many Dutch HTPs contain menthol and menthone, while their corresponding Swiss products – with similar product name - do not. Still, cooling agents other than menthol and menthone are only found in Swiss products, described as having minty and fresh flavor, with up to four different cooling agents in a product. Results from LCMS analysis will be presented during the conference.

#### CONCLUSIONS

The results create a better understanding of possible product adaptations upon the characterizing flavor ban, and therefore, give an indication of compliance with such a ban. Still, an overlap is seen in flavorings and cooling agents in all HTPs and HHPs. More research is needed to determine the effect that these widely used additives have on sensory profile of the products and consumer liking. Based on those results, extensions on HTP and HHP regulations could be considered to target specific flavorings and cooling agents.

**Tob. Prev. Cessation 2026;12(Supplement 1):A92**

## Emerging Nicotine Products

### PP021

#### Prevalence and risk of developing respiratory symptoms in e-cigarette users. A systematic review and meta-analysis

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#### BACKGROUND-AIM

In recent years, the use of electronic cigarettes (e-cigarettes) has increased among adolescents and young adults. Although many studies suggest an increased likelihood of respiratory symptoms among e-cigarette users, the evidence remains inconsistent. The objectives of this study were to identify and describe studies evaluating the prevalence of respiratory symptoms among e-cigarette users under 25 years old and to estimate the overall risk of developing these symptoms according to patterns of use.

#### METHODS

A systematic review was conducted following the PRISMA 2020 guidelines. A bibliographic search was performed in PubMed (MEDLINE), Embase, CINAHL and Web of Science. In order to identify studies that compared e-cigarette users (exclusive, dual, or general, meaning a mix of exclusive and dual users) with non-users which reported prevalence or effect measures for respiratory symptoms among people aged under 25 years. Titles, abstracts, and full texts were screened independently in pairs. Data extraction was performed using an ad hoc table. When possible, pooled estimates were obtained through random effects meta-analysis. Heterogeneity, publication bias, subgroup and sensitivity analyses were performed. Study quality was assessed using an adapted version of the Newcastle-Ottawa scale.

#### RESULTS

Twenty-seven studies were included. Most of them were cross-sectional studies (n=19) and were conducted in the United States (n=18). The respiratory symptoms most frequently assessed were cough (n=13), wheezing (n=8) and shortness of breath (n=8), with substantial variability in prevalence across comparing groups. In general, the prevalence of respiratory symptoms was higher among e-cigarette users than among non-users. The meta-analysis showed significant associations with any respiratory symptom (OR=1.50; 95%CI: 1.27–1.77), wheezing (OR=1.54; 95%CI: 1.29–1.84), cough (OR=1.39; 95%CI: 1.19–1.62), shortness of breath (OR=1.66; 95%CI: 1.47–1.89), bronchitis symptoms (OR=1.37; 95%CI: 1.10–1.69), chest pain (OR=1.58; 95%CI: 1.43–1.75), and phlegm (OR=1.93; 95%CI: 1.76–2.12). Substantial heterogeneity was observed in half of the models. Subgroup analyses showed that dual users were at higher risk. No association was found between exclusive e-cigarette use and any of the assessed respiratory symptoms. Most of the included studies were of moderate quality.

#### CONCLUSIONS

Our findings showed an association between e-cigarette use and the presence of respiratory symptoms among young people. However, this association did not persist when the analysis was restricted to exclusive e-cigarette users. These results highlight the need for additional longitudinal studies to better understand the long-term effects of e-cigarette use, as well as the importance of strengthening prevention efforts, regulatory measures and health education targeting young people.

**Tob. Prev. Cessation 2026;12(Supplement 1):A93**

## Emerging Nicotine Products

### PP107

#### Clinical characterization of systemic exposure to electronic cigarette compounds using population pharmacokinetics and machine learning (IMENOT)

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#### BACKGROUND-AIM

The cumulative effects of repeated e-cigarette use and the long-term health consequences remain unclear. This study aimed to explore associations of aerosol components, systemic exposure and metabolic profiles of e-cig compounds using an integrated analytical, pharmacokinetic and computational strategy.

#### METHODS

A controlled clinical experiment utilizing 30 healthy volunteers (15 e-cig users, 15 never-smokers) assessed exposure during a standardized 60 min vaping session which was divided into 3 periods of vaping (with washout periods) at controlled device and puffing conditions. Blood samples were obtained at baseline, during exposure and at postexposure. Urine samples were collected at baseline and at post-exposure. Specific assessment of nicotine, cotinine, trans-3'-hydroxycotinine, and nornicotine

was conducted using validated LC–MS/MS, while additional exposure-related compounds were studied utilizing LC–HRMS metabolomic screening. Pharmacokinetic characterization included non-compartmental (C<sub>max</sub>, T<sub>max</sub>, AUC<sub>last</sub>, t<sub>1/2</sub>) and population pharmacokinetic modelling. Covariate search evaluated demographic profile, refill liquid composition (PG/VG ratio, nicotine concentration), and vaping behavior parameters. Simultaneously machine learning and deep learning models were implemented to unveil latent patterns from vaping profiles. Participants underwent pulmonary function tests (PFTs) prior to exposure and after completion of the vaping session, including oscillometry.

#### RESULTS

Early detections of nicotine and nicotine metabolites in blood and urine were tested in dense time points during exposure and at post-exposure. The nicotine concentration–time profiles indicated both a rapid increase during the vaping phase and a biexponential decline during the washout phase, indicative of inhalation pharmacokinetics. Initial pharmacokinetic modelling showed that nicotine kinetics can be well characterized by one or two-compartment models with first-order absorption and elimination, whereas metabolite dynamics adhered to parent–metabolite template structures. The trans-3'-hydroxycotinine/cotinine ratio is known to model between-patient differences in nicotine metabolism. Having piloted data, we identified an optimum sparse sampling scheme for the pivotal study consisting of blood samples collected at 0, 10, 20, 40 and 60 min during exposure and +30 min, +2 h and +5 h for the study to allow for a reliable estimation of pharmacokinetic parameters with minimal sampling burden. Preliminary modeling results indicated that differences in pharmacokinetic parameters, based on vaping schedules, refill fluid compositions and individual metabolic, can vary across patients.

#### CONCLUSIONS

This study presented a framework of integrated exposure analysis by chemical methods, clinical biomonitoring, pharmacokinetic modelling, and machine learning to characterize exposure to e-cigarette components.

**Tob. Prev. Cessation 2026;12(Supplement 1):A94**

## Environment and Sustainability

### PP022

#### Chemical compounds in the liquids and the emissions of electronic cigarettes

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#### BACKGROUND-AIM

The electronic cigarettes are since some years in the market. The technology of those products evolved during those years; the same is also valid in the case of liquids composition. This work analyses the published works and synthesise the data on the chemical compounds found in the liquids and the emissions of electronic cigarettes.

#### METHODS

Scopus is used as database for the published works. Two searches were performed, using appropriate keywords, one for

the composition of e-liquids and one for emissions. The PRISMA method was used to select the papers to include in the analysis. Then, for each paper, several data were recorded: the metadata of the paper (title, authors, journal, year, etc.), the analytical methods used for the determination of the liquids and the emissions, the chemical compounds found and their concentrations (if available) the funding source, etc. In the case of particles, in addition of the chemical analysis (if available), the physical characteristics of the particles analyzed are also presented. At the next step, those data were put in appropriate tables and analysed.

#### RESULTS

This work is ongoing and the final results are not fully available. Until mid of 2025, 109 papers deal with the composition of e-liquids and 330 with the compounds emitted from electronic cigarettes. Totally, 439 compounds are detected in the e-liquids and, in the emissions, 58 metals and 1058 different chemical compounds are detected, and the particles are analysed using 29 different physical characteristics (number, mass, etc). The next step is the presentation of the impact of funding (industry, independent research) on the detected emissions, the clustering of those compounds in chemical families, the evolution of the compound on time, and a focus on the known toxics.

#### CONCLUSIONS

Several hundreds of chemical compounds are reported in the literature in the case of the e-liquids and emissions of electronic cigarettes. Also, several works report and analyze the emissions of particles. The next step is the analysis of the toxicological characteristics of those compounds.

**Tob. Prev. Cessation 2026;12(Supplement 1):A95**

### Environment and Sustainability PP023

#### Chemical compounds and particles reported in the emissions of heated tobacco products

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#### BACKGROUND-AIM

Heated tobacco products are since some years in the market. The technology of those products evolved during those years and the emissions produced are not the same. This work analyses the published works and synthesise the data on the chemical compounds and the particles reported in the emissions of heated tobacco products.

#### METHODS

Scopus is used as database for the published works. One search was performed, using appropriate keywords, for the emissions of chemical compounds from heated tobacco products. The PRISMA method was used to select the papers to include in the analysis. Then, for each paper, several data were recorded: the metadata of the paper (title, authors, journal, year, etc.), the analytical methods used for the determination of the compounds found in the emissions, the chemical compounds found and their concentrations (if available), the funding source, etc. In the case of particles, in addition of the chemical analysis (if available), the physical characteristics of the particles analyzed are also presented. At the next step, those data were put in appropriate tables and analysed.

#### RESULTS

This work is ongoing and the final results are not fully available. For the moment, the analysis is finished until end of 2020. Until the end of 2020, 85 papers deal with the compounds emitted from heated tobacco products. Totally, 494 compounds and 34 metals are detected in the emissions; the particles are analysed using 26 different physical characteristics (number, mass, etc) and 516 chemical compounds are found in the particles. The next step is the presentation of the impact of funding (industry, independent research) on the detected emissions, the clustering of those compounds in chemical families, the evolution of the compound on time and a focus on the known toxics.

#### CONCLUSIONS

Several hundreds of chemical compounds are reported in the literature in the case of the gaseous and particulate emissions of heated tobacco products. Also, several works report and analyze the emissions of particles. The next step is the analysis of the

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### Equity and Inclusion PP025

#### Training inmates as peer stop smoking advisors in a medium security prison in Ireland: A peer-led approach to deliver stop smoking care in a prison setting

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#### BACKGROUND-AIM

Tobacco use remains disproportionately high within Irish prisons, contributing significantly to health inequalities among imprisoned individuals. The aim of the project was to address to health inequalities within a prison setting and to assess the viability of training inmates as stop smoking advisors to support their peers to quit smoking.

#### METHODS

This study describes the implementation and outcomes of a peer-led stop smoking programme in an Irish medium security prison, where inmates—trained as volunteers under the Irish Red Cross Prison Programme—became Peer Stop Smoking Advisors to support fellow prisoners in quitting smoking in a group setting. Selected inmate volunteers from the Irish Red Cross scheme completed training in stop smoking care and delivered group-based behavioural support to their peers over a 7 week period. Participants were provided free nicotine replacement therapy (NRT) and encouraged to set quit dates. Programme progress was monitored qualitatively and quantitatively. Quantitative monitoring is ongoing.

#### RESULTS

Engagement and quit attempts: engagement was strong—among participants, all set quit dates and commenced NRT. Participants reported that support from Irish Red Cross-trained peer advisors significantly influenced their commitment to the programme. Relapse and re-engagement: the lockdown disruption resulted in relapse for a subset of participants, primarily due to interruption in NRT access and group support. However, once the prison reopened and NRT supply resumed, many participants reset quit dates and recommenced quit efforts, thereby illustrating an appetite for quitting smoking despite the restrictive environment.

#### CONCLUSIONS

Training Irish Red Cross inmate volunteers as peer stop-smoking advisors within an Irish prison setting is both feasible and effective. The Irish Red Cross model provided an existing volunteer infrastructure enabling recruitment, training and support for peer advisers within the prison context. The transient relapse caused by lockdown underscores the critical importance of maintaining continuity of access to NRT and behavioural support, even during institutional disruptions. The rapid re-engagement of participants once services resumed emphasises the presence of a genuine desire to quit among imprisoned individuals—even under constrained circumstances. Empowering Irish Red Cross volunteer inmates to serve as peer stop smoking advisors offers a sustainable, credible and empowering approach to tobacco cessation within the Irish prison system. Despite operational setbacks such as lockdowns, participants exhibited strong motivation and resilience. Leveraging the existing volunteer framework of the Irish Red Cross can effectively drive health promotion, reduce smoking prevalence and support broader rehabilitation objectives in prison settings in Ireland.

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## Equity and Inclusion

### PP026

#### Smoking and social inequalities in France: 20 years of evolution

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#### BACKGROUND-AIM

Since the early 2000s, the prevalence of smoking has declined overall in France. This study aims to describe the evolution of social inequalities in smoking in relation to anti-smoking policy between 2000 and 2021.

#### METHODS

The data comes from Santé publique France's Health Barometers, cross-sectional telephone surveys which are conducted on random samples of the French population aged 18–75 (between 9074 and 28224 people were surveyed depending on the edition). Changes in prevalence according to socioeconomic status (level of education, income and employment status) were modeled using Poisson regression.

#### RESULTS

Overall, social inequalities related to smoking increased during the period under review, with smoking prevalence rising among individuals with lower levels of education, lower incomes or who were unemployed, while declining among more socioeconomically advantaged groups. The analysis reveals three distinct phases: an increase in inequalities between 2000 and 2016, a stabilization of disparities between 2016 and 2019, followed by a resumption of the increase in inequalities related to education and income between 2019 and 2021.

#### CONCLUSIONS

Between 2016 and 2019, a period marked by reinforced anti-smoking efforts and the implementation of numerous effective measures in national programs that addressed social inequalities, differences in smoking prevalence according to socioeconomic status have stabilised, bringing an end to 16 years of increase. Although the more severe consequences of the subsequent

pandemic (Covid-19) have interrupted this progress, this study shows that an increase in social inequalities related to smoking is evitable. When measures are implemented with this goal in mind, inequalities can be contained, as was observed in France between 2016 and 2019, with smoking declining among disadvantaged populations.

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## Equity and Inclusion

### PP027

#### Sociodemographic inequalities in cigarette smoking, alcohol drinking and dual use of cigarettes and alcohol among Polish farmers

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#### BACKGROUND-AIM

Tobacco smoking and alcohol drinking are the major causes of premature and cancer mortality, especially in men. Epidemiological studies show that dual use of cigarettes and alcohol is particularly dangerous to health, especially when continued long-time and in high doses. Sociodemographic and cultural factors strongly influence on the prevalence and behavioural patterns of smoking and alcohol drinking. This paper is aimed to evaluate the role of sociodemographic inequalities in cigarette smoking, alcohol drinking and dual use of these psychoactive substances among Polish farmers.

#### METHODS

A questionnaire survey on health conditions, disease treatment and health behaviours was conducted among 612 farmers who were participating in 21-day rehabilitation courses organised between August 2021 and September 2022 by the Farmer's Rehabilitation Centre in Jedlec, western part of Poland. Majority of study subjects were women, farmers at middle age (50-59 years old) and with low education. Cross-sectional statistical univariate analysis (by sex, age and level of education) of current cigarette smoking, current alcohol drinking and dual current use of cigarettes and alcohol was based on results of Pearson's and Cramer's chi-square tests with the use the IBM SPSS Statistics Package.

#### RESULTS

The prevalence of current cigarette smoking was significantly associated with age of farmers ( $p=0.003$ ), especially in women where smoking rates were lowering with age (from 13.3% among women aged up to 49 to 2.9% among women aged 60 and over). Differences in smoking rates in gender and educational groups were not statistically significant. Alcohol drinking was strongly and significantly associated with gender, age and level of education. Men drunk alcohol very often and two times more often (51.1%) than women (20.9%). In men, alcohol drinking rates

were the highest in oldest farmers (47.1%) and decreasing with their education (from 25.1% in low educated to 18.6% in highly educated). In women, alcohol drinking prevalence was decreasing with age and the highest among those with moderate education (16.4%). Dual use of cigarettes and alcohol was significantly associated with all analysed sociodemographic variables. Almost one of ten farmers was dual user of cigarettes and alcohol while one of two was dual abstainer. More dual users were found among men, oldest subjects and low educated persons whereas dual abstinence was more frequent among women, at middle age and among farmers with the highest education.

#### CONCLUSIONS

Cigarette smoking, alcohol drinking and dual use of both psychoactive substances are strongly determined by sociodemographic status of farmers. To effectively reach vulnerable populations such farmers, where access to health education and health care settings seems to be lower and health illiteracy at higher level than in towns, tobacco and alcohol prevention and cessation programs should address demographic and social inequalities.

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### Equity and Inclusion PP028

#### Sociodemographic differences in smoking behaviours among people with a migration background: Insights from the national Swiss health survey

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#### BACKGROUND-AIM

This study aimed to examine how migration background is associated with current smoking and whether this relationship varies by sex, age, and education.

#### METHODS

We analysed data from 19441 participants of the 2022 Swiss Health Survey, an official, national cross-sectional dataset. Current smoking (yes/no) was the outcome, and migration background (none, 1st generation, 2nd or higher generation) the primary exposure. Multivariable logistic regression models adjusted for sociodemographic and behavioural covariates, were followed by stratified analyses by sex, age and education.

#### RESULTS

Compared with participants without a migration background, the odds of current smoking were higher among those with a 1st-generation background (OR = 1.29, 95% CI 1.18–1.40) and 2nd or higher generation (OR = 1.56, 95% CI 1.37–1.78). In comparison to those without migration backgrounds, the highest odds were observed among 2nd or higher generation male participants, younger adults (25–34 years), and participants with lower educational attainment.

#### CONCLUSIONS

Migration background independently contributes to smoking inequalities in Switzerland. Elevated risks among 2nd-generation and younger adults demonstrate the need for culturally adapted, equity-oriented prevention strategies and stronger national tobacco control policies.

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### Equity and Inclusion PP029

#### Sharp increase in smoking prevalence in Poland. Why the Polish tobacco control strategy does not work?

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#### BACKGROUND-AIM

Enforcement of the comprehensive tobacco control policies in Poland in mid-1990s contributed to substantial decrease in tobacco smoking and was followed by decline in lung cancer mortality. At that time the 1995 Poland Tobacco Control Law was evaluated by WHO as an example for other countries and the annual decrease ratio in cigarette consumption and smoking prevalence and lung cancer mortality rates belonged to one of the highest in the world. This paper aims to evaluate if decline in smoking prevalence the past decade was continued.

#### METHODS

A nation-wide questionnaire survey on tobacco smoking and the use of other tobacco and nicotine products was conducted by the European Observatory of health inequalities at the University of Kalisz, Poland between 22 to 27 April 2025 in collaboration with the Health Promotion Foundation in Nadarzyn, Poland. The study was supported by unrestricted grant of the Watch Health Care Foundation in Warsaw, Poland. The study design, including survey concept, methods, tools and definitions of smoking behaviors, was based on the scientifically proven methodology used by our team in the years 1982-2016. A nationally representative cross-sectional quota sample of 1,500 respondents was selected from population of Poland at age of 15 and over. The study was realized with the use of mix-mode questionnaire interview technique: Computer-Assisted Telephone Interview (CATI) and Computer-Assisted Web Interview (CAWI), each one administered with 50% of selected respondents. Current cross-sectional analysis refers to the prevalence of basic smoking behaviors by gender: daily, occasional, former and never smoking. Statistical analysis was performed using the recent version of the SPSS Statistical Package and based on weighted data and results of chi-square tests ( $p < 0.05$ ).

#### RESULTS

In 2025, the prevalence of daily smoking was 26.1% in the whole adult population - 31.5% in adult men and 21.2% in adult women. Current smoking rates reached 36.9% in men and 25.7% in women. Between 2019 and 2025, the prevalence of daily smoking sharply increased - in men from 26.9% to 31.5%, in women from 18.1% to 21.2%. By now, the prevalence of current smoking in Poland is much higher (31%) than the 2023 average current smoking prevalence in the European Union (24%), both in male and female population.

#### CONCLUSIONS

In the past decade, the sharp increase in smoking prevalence is observed in Poland. Currently, smoking prevalence rates are at

high level when compared with other EU countries. It was caused by the shutdown of the Poland National Tobacco Control Strategy and Action Plan, by inadequate changes in Polish tobacco control legislation and by increased economic affordability of tobacco products in Poland. It weakens public health in Poland and requires urgent enforcement of new comprehensive tobacco control strategy in Poland.

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## Health Consequences of Tobacco and Nicotine Use

### PP030

#### Secondhand smoke exposure in COPD patients who have never smoked

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#### BACKGROUND-AIM

Smoking is the main risk factor for chronic obstructive pulmonary disease (COPD). However, around one-third of COPD cases occur in individuals who have never smoked. In recent years, exposure to secondhand smoke (SHS) has become an important health risk factor. Currently, exposure to SHS is causally associated with lung cancer, asthma, ischemic heart disease and COPD, among other diseases. The aim of this study was to describe the characteristics of COPD patients who have never smoked, taking into account their exposure to SHS.

#### METHODS

The sample is based on a multicentre, ambispective cohort study of never-smoking COPD cases with a confirmed spirometric diagnosis. Cases were diagnosed between 1993 and 2023 and recruited from three hospitals in Galicia, Spain. Exposure to SHS was assessed at the time of recruitment by asking whether the patient had lived with a smoker in the previous 20 years. Exposed and unexposed cases to SHS were compared in terms of sex, age at diagnosis, and time to diagnosis.

#### RESULTS

The sample consisted of 248 never-smoking COPD cases with information on exposure to SHS. Of these cases, 64.1% were women and 35.1% had lived with a smoker in the last 20 years. Significant differences were observed between exposed and unexposed cases regarding sex: 57.1% of unexposed cases were women and 42.9% were men, while 77% of exposed cases were women and 33% were men ( $p$ -value=0.002). No significant differences were observed between exposed and unexposed cases in terms of age at diagnosis or time to diagnosis (i.e. the time elapsed between the first consultation compatible with COPD symptoms and diagnosis). The median age at diagnosis was 66 years for those not exposed, with an interquartile range (IQR) of 52–74 years, and 70 years for those exposed (IQR=61–75). The

median time to diagnosis was 3.8 years (IQR: 1.1–8.0) for those not exposed, and 3.1 years (IQR: 1.2–6.6) for those exposed.

#### CONCLUSIONS

Women with COPD who have never smoked are more frequently exposed to SHS at home than men. No significant differences were observed in age at diagnosis or time to diagnosis between never-smoking COPD cases exposed to SHS and those not exposed. It is important to consider exposure to SHS in individuals who have never smoked but have symptoms consistent with COPD, particularly women.

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## Health Consequences of Tobacco and Nicotine Use

### PP031

#### Attributed mortality to tobacco consumption in Spain in 2023

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#### BACKGROUND-AIM

Tobacco use is the leading cause of preventable death worldwide, due to its high prevalence and association with various diseases. Monitoring the smoking epidemic is essential for guiding public health policies, with attributable mortality (AM) being a key indicator. Estimating AM allows a robust assessment of the impact of smoking on a population. The objective of this study was to estimate AM to tobacco use in Spain in 2023 by sex, age, and specific cause of death using different lag times between smoking prevalence and observed mortality in population aged 35-84 years.

#### METHODS

AM was estimated using a prevalence-dependent method based on the calculation of the population attributable fraction. This approach requires data on observed mortality, smoking prevalence, and relative risks. Observed mortality, for the year 2023, was obtained by sex and age group, including all causes of death associated with tobacco use. These causes were classified into three major groups: cardiovascular diseases, tumors, and respiratory diseases. Smoking prevalence was derived from the 2023- Spanish National Health Survey and from reconstructed prevalence based on the historical data from the Spanish National Health Survey (doi: 10.1093/eurpub/ckaf015). Relative risks associated with each cause of death, stratified by sex and age group, derived from five cohort studies conducted in the United States of America. AM due to tobacco use was estimated by applying no-lag specification and several lag times, representing the temporal delay between tobacco use and its associated mortality. So, two scenarios were defined: Scenario 1: no lag between smoking prevalence and observed mortality Scenario 2: 5-year lag for cardiovascular diseases, 15-year lag for cancer and 30-year lag for respiratory diseases

## RESULTS

Scenario 1 In the no-lag-time scenario, it was estimated that tobacco use caused 40350 deaths in Spain among individuals aged 35–84 in 2023. AM was higher in men (31991 deaths) than in women (8359 deaths). By cause of death, tumors accounted for the highest proportion of AM [58.69% (n= 23680 deaths)], followed by cardiovascular diseases [25.47% (n= 10276 deaths)] and respiratory diseases [15.85% (n= 6394 deaths)]. Scenario 2 When lag times were applied, it was estimated that tobacco use caused 47056 deaths in Spain among individuals aged 35–84 in 2023. Regarding causes of death, tumors accounted for the highest percentage of deaths [58.80% (n= 27668 deaths)], followed by cardiovascular diseases [25.22% (n= 11868 deaths)] and respiratory diseases [15.98% (n= 7521 deaths)].

## CONCLUSIONS

The estimated AM to tobacco use varies depending on whether lag times are considered. This is particularly relevant in the case of tumors and respiratory diseases, where differences between scenarios are more pronounced. Considering lag times between prevalence and mortality allows for a more accurate estimation of the impact of tobacco use on population's mortality.

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## Health Consequences of Tobacco and Nicotine Use

### PP032

#### A primary obstetric outcome analysis of the echo study - the impact of e-cigarettes on pregnancy and childhood health outcomes - prospective, multi-centre, observational, cohort study of women who smoke or vape during pregnancy

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## BACKGROUND-AIM

E-cigarette use is increasingly common in pregnancy, yet its effects on maternal and infant outcomes remain unclear due to limited high-quality longitudinal studies. International recommendations conflict: the UK considers e-cigarettes a cessation aid, whereas the US Surgeon General discourages their use. While registry studies suggest vaping increases the risk of small-for-gestational-age (SGA) infants, several prospective studies, including a pilot from our institution, have not found birthweight differences. Robust evaluation of vaping in pregnancy is needed to guide

clinical advice.

## METHODS

This prospective, multi-centre, observational cohort study is registered with NCT: 06297005. The study protocol has been published. Four groups of pregnant women were recruited; smokers, e-cigarette users, dual users and non-users (controls). Their exposure status was objectively assessed using specific biomarkers - breath carbon monoxide and urine cotinine assays. A targeted fetal ultrasound in the third trimester gathered data on fetal growth parameters. Obstetric outcomes examined included birthweight, small for gestational age, low birth weight and gestational age at delivery.

## RESULTS

We recruited 726 women, for whom primary outcomes were available for 684. Demographic details were broadly similar across groups with the exception of dual-users who were significantly younger than other groups (p-value <0.05). Vaping mothers had infants of similar birthweight to controls (p-value 0.8) and their babies were significantly heavier than those of smoking mothers (p=0.05). Smokers had significantly more babies < 10th percentile for gestational age than vapers (p-value <0.0001). We found no significant difference in median gestational age at delivery; the rate of preterm birth or admission to NICU, however, numbers with these outcomes were low. A multiple regression analysis of birthweights adjusting for age, BMI, parity and gestational age at delivery was completed. Smokers had lower birthweight weights (adjusted mean=3155g), compared to controls (3369g; p<0.001), vapers (3368; p<0.001) and dual vaper/smokers (3247g; p=0.454). This is consistent with the univariate analysis and suggests that, after adjusting for important prognostic variables, birthweights for vapers are very similar to those of non-smokers.

## CONCLUSIONS

Unlike cigarette smoking, e-cigarette usage in pregnancy is not associated with an increase in small for gestational age babies. This is a clinically relevant finding and contrasts with earlier studies which interpret large datasets. The strength of our study lies in its prospective design and use of objective biomarker determination of exposure groups providing reliable confirmation of cigarette consumption and e-cigarette usage. We await the findings of the subsequent paediatric analyses of this study which will examine growth and neurocognitive outcomes in the infant participants at 6 months, 1 and 2 years of age.

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## Health Consequences of Tobacco and Nicotine Use

### PP033

#### The importance of age of smoking debut and packyears on development of respiratory symptoms and asthma in young adulthood

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## BACKGROUND-AIM

Smoking initiation most commonly occurs during adolescence, a period when the lungs are still developing, which may lead to long-term adverse effects. However, epidemiological studies examining

the age of smoking debut in relation to respiratory symptoms and asthma development in young adulthood remain surprisingly scarce. Thus, the aim was to prospectively study age of smoking debut and packyears in relation to respiratory symptoms and asthma at age 28 years.

#### METHODS

The epidemiological research programme Obstructive Lung Disease in Northern Sweden (OLIN) studies recruited a cohort of 8-year-old children in 1996 (n=3430; 97% of invited). The cohort was followed annually until age 19 years, by questionnaire surveys about asthma, respiratory symptoms, and from age 13 years, smoking habits. Additionally, the cohort was followed-up by postal questionnaire at age 28 years (n=2291; 71% of invited). The association between smoking during adolescence and respiratory symptoms and asthma at the age of 28 years was analysed by unadjusted and adjusted logistic regression and the results presented as odds ratios (OR) with 95% confidence intervals (CI).

#### RESULTS

Being a daily smoker was reported at least once by 22%, more commonly by women than men, 25 vs. 19%,  $p < 0.001$ . Of ever smokers, 29% started smoking  $\leq 15$  years (mean packyear 2.3), 35% between 16 and 17 years (mean packyears: 1.8), and 35%  $\geq 18$  years (mean packyears: 1.2). Mean age of smoking debut was 16.8 years (min 10, max 26y) and mean packyears was 1.7 (min 0, max 19). Among all 2291 participants at age 28 years, 23% reported asthma and 53% reported any respiratory symptom, the most common were any wheeze last 12 months (36%) and sputum production (30%). The prevalence of asthma increased with earlier age of smoking debut:  $\leq 15$  years 26%; 16-17 years 20%,  $\geq 18$  years 20%, and 17% among never smokers,  $p = 0.027$ . Similarly for any respiratory symptom:  $\leq 15$  years 46%; 16-17 years 45%,  $\geq 18$  years 40%, and 27% among never smokers,  $p < 0.001$ . After adjustment for sex, family history of asthma, exposure to smoking in childhood and educational level, any respiratory symptom was associated with packyears (OR 1.1 95% CI 1.0-1.2) and smoking debut age  $\leq 15$  years (OR 1.8; 95% CI 1.2-2.7), 16-17 years (OR 1.8; 95% CI 1.3-2.6), and  $\geq 18$  years (OR 1.5; 95% CI 1.1-2.1), compared with never smokers. Smoking debut  $\leq 15$  years (OR 1.7; 1.2-2.6) and packyears (OR 1.1; 95% CI 1.0-1.2) was associated with asthma in unadjusted analyses, but not in the adjusted analyses.

#### CONCLUSIONS

The majority of smokers started smoking before 18 years of age, and early smoking debut and higher number of packyears were associated with respiratory symptoms already at age 28 years, despite low number of packyears.

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## Health Consequences of Tobacco and Nicotine Use

### PP034

#### Short-term cardiovascular effects of exclusive use of heated tobacco products (IQOS)

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#### BACKGROUND-AIM

The heated tobacco product IQOS is marketed as a less harmful alternative to conventional cigarettes, yet the acute cardiovascular toxicity associated with single use—particularly in exclusive users—remains insufficiently characterized.

#### METHODS

We conducted an independent observational study in Milan, Italy, in March-June 2024. Three groups of participants -frequency matched by age and sex- were recruited: exclusive conventional cigarette smokers (n=25), exclusive IQOS users (n=26) and never smokers (n=27). We compared the acute cardiovascular impact associated with the use of a conventional cigarette or IQOS by measuring systolic and diastolic blood pressure and heart rate prior (T0) and upon (T1) product consumption.

#### RESULTS

From T0 to T1, systolic and diastolic blood pressure decreased in never smokers (-5.9 mmHg and -1.3 mmHg) and increased in cigarette smokers (+2.4 mmHg and +4.6 mmHg) and IQOS users (+0.3 mmHg and +3.1 mmHg). Heart rate increased markedly among cigarette smokers (74.6 to 87.4 bpm; +12.8 bpm) and IQOS users (75.5 to 86.7 bpm; +11.1 bpm), with both groups showing significant increases compared with baseline and with never smokers (70.5 to 74.2 bpm; -3.7 bpm;  $p < 0.001$ ). The magnitude of the cardiovascular changes (T1-T0) observed in IQOS users did not differ from those observed in cigarette smokers and was significantly greater than in never smokers.

#### CONCLUSIONS

This study suggests that cigarette and IQOS use induce an almost analogous increase in blood pressure and heart rate in healthy exclusive cigarette smokers and exclusive IQOS users, evidencing the acute harmful effects of IQOS emissions on parameters of cardiovascular functionality. These findings highlight the need to determine the long-term cardiovascular harmfulness associated with use of heated tobacco products, as still uncharacterized.

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## Health Consequences of Tobacco and Nicotine Use

### PP035

#### Mental health and gender as determinants

## of smoking cessation in cytisine-treated smokers in clinical practice

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### BACKGROUND-AIM

Cytisine is a drug of proven efficacy for smoking cessation, however mental disorders such as anxiety and depression are highly prevalent among smokers and may affect treatment efficacy. In addition, sex-related differences in quitting rates have been reported, suggesting that women may respond differently to pharmacological support. This study aimed to evaluate whether baseline anxiety, depression or gender can predict smoking cessation at 3 and 6 months in smokers treated with cytisine according to the best-practice regimen used in Italian smoking cessation centers.

### METHODS

This real-life retrospective cohort study included 59 adult smokers treated at the Smoking Cessation Center of Pisa University Hospital, Italy, from November 2022 to August 2025. All participants received cytisine according to a dosing scheme of up to six 1.5 mg tablets/day in the first week of treatment and a subsequent progressive reduction over 40 days. Baseline anxiety and depression were assessed with the Hospital Anxiety and Depression Scale (HADS), which includes two separate subscales for anxiety (HADS-A) and depression (HADS-D). Smoking abstinence rate, confirmed by measurement of exhaled CO, was assessed at 3 and 6 months. Multivariable logistic regression models were used to determine whether baseline HADS scores independently predicted abstinence, adjusting for age, sex, psychiatric comorbidity, score of Fagerström test for nicotine dependence and exhaled CO at baseline.

### RESULTS

The median age of subjects was 59±9.8 years (range 38-81); 55.9% were female. Baseline median scores were 8±4.4 for HADS-A (range 0-19) and 5±3.2 for HADS-D (range 1-15). Abstinence rates were 49.2% at 3 months and 35.6% at 6 months. At 3 months, female sex was independently associated with higher abstinence rates (OR=5.21; p=0.027). Conversely, higher depressive symptoms significantly reduced the likelihood of quitting (OR=0.69; p=0.022). At 6 months, none of the assessed variables reached statistical significance, although a trend towards higher abstinence rates was observed for female sex (OR=3.52; p=0.076). Furthermore, psychiatric comorbidity (OR=0.24; p=0.055) and HADS-D (OR=0.74; p=0.054) showed borderline associations with lower abstinence rates.

### CONCLUSIONS

In cytisine-treated smokers, preliminary clinical practice findings suggest that female sex is an independent predictor of early abstinence, while baseline depressive symptoms (HADS-D) significantly reduce quitting success and exert a borderline negative effect until 6 months. Psychiatric comorbidities show a borderline association with poorer abstinence, whereas anxiety

(HADS-A) does not affect quitting outcomes. Routine depression screening could help identify higher-risk smokers and guide psycho-pharmacological support to improve cytisine treatment effectiveness.

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## Health Consequences of Tobacco and Nicotine Use

### PP037

## Burden of digestive tract cancers attributable to cigarette smoking in Italy: An individual-level approach

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### BACKGROUND-AIM

Tobacco smoking is one of the most important modifiable risk factors for several cancers. While its association with respiratory tract malignancies is well established, smoking also plays a major role in the aetiology of digestive tract cancers. In Italy, these neoplasms account for a substantial proportion of cancer incidence and mortality, highlighting the need to quantify the burden attributable to cigarette smoking.

### METHODS

We applied an innovative individual-level approach to estimate the population attributable fraction (PAF) of digestive tract cancer cases (including oral cavity and pharynx, oesophagus, stomach, and colorectum) attributable to active smoking in Italy in 2022. This method incorporates both smoking status (current, former, or never smokers) and individual characteristics such as smoking intensity, duration, and time since cessation. Estimates were based on data from a nationally representative survey of smoking habits, relative risks estimated using meta-analytical techniques, and national cancer incidence statistics.

### RESULTS

In Italy, in 2022, cigarette smoking accounted for an estimated population attributable fraction (PAF) of 32.0% for oral and pharyngeal cancers, 26.2% for oesophageal cancers, 14.0% for gastric cancers, and 6.6% for colorectal cancers. Overall, smoking was responsible for approximately 8396 digestive tract cancer cases, corresponding to 10.8% of all digestive tract cancer cases in Italy in 2022.

### CONCLUSIONS

These findings reveal a substantial contribution of smoking to the burden of digestive tract cancers and emphasize the urgency of reinforcing tobacco control policies and awareness campaigns. Integrating primary prevention measures within existing screening programs could further reduce the impact of smoking-related cancers.

**Tob. Prev. Cessation 2026;12(Supplement 1):A108**

## Health Consequences of Tobacco and Nicotine Use

### PP038

## The health risk of e-cigarette use: A brief summary of current scientific knowledge

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#### BACKGROUND-AIM

The number of studies on the health risk of e-cigarette use is steadily increasing. This paper aims to briefly evaluate the current scientific knowledge on the harmfulness of e-cigarettes.

#### METHODS

A brief narrative summary of comprehensive systematic reviews, meta and pooled data analyses, and results of other clinical and epidemiological studies was made. The research data published since 2010 in peer-reviewed, highly-impacted scientific journals and in research reports of well-known research and health institutions were searched on major scientific databases, including PubMed, EMBASE, Web of Science, Cochrane Library, Scopus.

#### RESULTS

Key scientific findings on the health risk of e-cigarette use include research data on: 1/ the increased risk of nicotine intoxication and dependence (especially, in users of disposable products), 2/ negative impact on brain function and psychoneurological development of fetus, newborn and child, 3/ the risk of cigarette smoking and drug use ("gate effect"), 4/ the high content of carcinogens (formaldehyde, acetaldehyde, heavy metals) when e-cigarette battery is overheated, 5/ the risk of mutagenic changes when metabolism of benzo(a)pyrene to genotoxic products is enhanced, 6/ the presence of bladder cancer biomarkers in urine samples of e-cigarette users, 7/ the risk of increased heart rate and blood pressure, viscosity, clots and vessels, 8/ the risk of lung injury, including EVALI when THC is added to e-liquid, 9/ the risk of bronchitis (impact of diacetyl) and other pulmonary diseases (impact of carbonyls), 10/ the risk of serious accidents, injury and burns when e-cigarette battery is overheated and may explode, 12/ no significant difference in the risk of cardiovascular diseases and metabolic dysfunction between e-cigarette users and cigarette smokers, 13/ substantial increase (20% to 40%) in the risk of almost all health outcomes in dual users of e-cigarettes and conventional cigarettes when compared with the risk observed in cigarette smokers.

#### CONCLUSIONS

E-cigarettes may contain substances with no safe dose of strong psychoactive, carcinogenic, cardiovascular and pulmonary toxic properties. Prolonged, uninterrupted e-cigarette vaping, overheating the e-cigarette battery, vaping of e-cigarettes manufactured of low-quality components or bought in unknown sources (especially, disposable products) may enhance the content of these substances to the amount observed in conventional cigarettes and significantly contribute to both acute and chronic health outcomes. The risk of negative health outcomes tends to be particularly high among poly-tobacco and poly-substance abuse users. There is an urgent need to continue studies on the health risk of e-cigarette vaping, to educate e-cigarette users in this domain and to regulate these products accordingly with their health risk level, potentially as strictly as cigarettes and other tobacco products.

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## Health Consequences of Tobacco and Nicotine Use

### PP039

#### Changes in the daily use of any nicotine products between individuals with and without psychological distress from 2017 to 2022

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#### BACKGROUND-AIM

Daily smoking has decreased while the use of other tobacco and nicotine products has increased. Individuals with psychological distress smoke generally more than those without. The use of other nicotine products is less studied in this group. The aim of this study was to examine the prevalence of daily use of any nicotine products by mental health status and to compare changes in the proportion of daily smoking among those using daily nicotine products by mental health status.

#### METHODS

Two cross-sectional population-based Finnish surveys conducted in 2017 (sample n=10247, participation rate 58.1%) and 2022 (sample n=18468, 46.3%) were used, including 20–74-year-old respondents. The category for daily smoking included those who reported smoking cigarettes, pipes or cigars daily, while category for daily nicotine use included those who reported daily use of snus, e-cigarettes, nicotine pouches, heated tobacco products or nicotine replacement therapy. Psychological distress was measured with Mental Health Inventory-5 (MHI-5, score  $\geq 52$ ). Age- and sex-adjusted margins with prevalence differences are reported, utilising multiple imputed data with population weights.

#### RESULTS

The prevalences for daily nicotine product use, daily smoking and experiencing psychological distress were 17.4% (n=1649), 13.6% (n=1311) and 11.4% (n=1073), respectively. Among individuals without psychological distress, the prevalence of daily use of any nicotine product was 16.7% in 2017 and 15.4% in 2022, while the corresponding prevalences for individuals reporting psychological distress were 28.9% and 25.5%, respectively. The proportion of daily smoking among those with daily use of any nicotine product decreased among individuals without psychological distress from 85.4% (in 2017) to 66.5% (in 2022) (change over time  $p < 0.0001$ ), while the corresponding adjusted prevalences among individuals with psychological distress were 89.2% and 78.4% (change over time  $p = 0.048$ ). The change in the proportion of daily smoking among those using any nicotine product daily did not differ between these two groups between 2017 and 2022 (contrast: 0.08; 95% confidence interval: -0.038, 0.195).

#### CONCLUSIONS

Daily nicotine use is more frequent, and daily smoking remains to constitute a greater proportion of the total nicotine use, among individuals with psychological distress than among individuals without psychological distress. The proportion of daily smoking in relation to daily use of any nicotine products has decreased among individuals with and without psychological distress while no differences in changes in this proportion were observed between these groups. Cessation of all tobacco and nicotine products should be supported irrespective of the mental health status of the person, while possible differences in the products used should be acknowledged.

**Tob. Prev. Cessation 2026;12(Supplement 1):A110**

## Health Consequences of Tobacco and Nicotine Use

### PP040

#### Projected impact of full implementation of tobacco control policies on future cancer incidence in East Asia

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#### BACKGROUND-AIM

East Asia accounts for almost one-third of all cancer cases worldwide. Tobacco use continues to be one of the leading drivers of cancer in this region, particularly among men. This study evaluated how many cancer cases could be avoided over the next 25 years if East Asian countries were to maximize the implementation of the World Health Organization Framework Convention on Tobacco Control (WHO FCTC).

#### METHODS

Using population-level data, we examined the association between changes in the national implementation of the WHO FCTC's MPOWER measures (Monitor, Protect, Offer, Warn, Enforce, and Raise) and tobacco smoking prevalence through fixed-effects linear regression models, with and without Human Development Index (HDI) adjusted. Based on the model outputs, we generated two projections of smoking prevalence: (1) continuation of current trends and (2) full implementation of all MPOWER measures. Population Attributable Fractions (PAFs) for 13 cancer types linked to tobacco use were calculated using Levin's formula. The number of preventable cancers (Potential Impact Fraction - PIF) was estimated as the difference of number of attributable cancers between the current and full implementation scenarios.

#### RESULTS

Between 2025 and 2050, 163 million tobacco-related cancer cases are projected in East Asian countries, of which 44.5 million (PAF: 27.3%; 95% CI: 25.4–29.3) could be attributed to tobacco smoking. Of these, 41.8 million are expected among men (PAF: 41.2%) and 2.7 million among women (PAF: 4.2%). Before accounting for the HDI variations, full implementation of MPOWER measures was estimated to prevent 3.5 million (95% CI: 2.9–4.0) incident cancers (PIF: 2.1%), while, after accounting for the HDI variations, the estimated number of preventable cancers decreased to 2.2 million (PIF: 1.3%). The highest number of preventable cancers due to full implementation of MPOWER was observed in China (2.7 million, 95% CI: 2.3–3.1 million), followed by Japan (350000, 95% CI: 290000–260000) and Indonesia (137000, 95% CI: 109000–165000). By cancer sites, lung cancer (1.9 million), liver

(309000), stomach (259000) and esophageal (238000) cancers were the leading preventable cancers.

#### CONCLUSIONS

We found that comprehensive implementation of MPOWER policies could substantially reduce the future cancer burden in East Asian countries, even after adjusting for the variations in HDI. This study underscores the critical importance of strengthening tobacco control efforts across the region.

**Tob. Prev. Cessation 2026;12(Supplement 1):A111**

## Health Consequences of Tobacco and Nicotine Use

### PP041

#### Global epidemiology of tobacco smoking and genitourinary cancers

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#### BACKGROUND-AIM

Tobacco smoking is causally linked to several genitourinary cancers, yet these cancers are often not widely recognized as tobacco-related. We aimed to describe the global epidemiology and temporal trends of tobacco use and genitourinary cancers to identify high-risk populations that may benefit from targeted interventions.

#### METHODS

We conducted a descriptive epidemiological analysis using data from the WHO Global Cancer Observatory (GLOBOCAN), country-specific WHO tobacco use prevalence reports, and the Global Burden of Disease (GBD) study. For each WHO Member State, we extracted the number of incident cases and deaths; age-standardized incidence rates; age-standardized mortality rates; and disability-adjusted life years (DALYs); for genitourinary cancers, including prostate, bladder, kidney, penile, and testicular cancers. We also obtained annual estimates of tobacco use prevalence. Temporal trends in cancer incidence were evaluated using estimated annual percentage changes in age-standardized rates. All analyses were stratified by WHO region to compare geographic patterns and identify populations at highest risk.

#### RESULTS

In 2022, more than 2.6 million individuals worldwide were diagnosed with genitourinary cancers, and approximately 800000 died from these diseases. Over the past three decades, global age-standardized incidence rates of kidney, prostate, and testicular cancers have increased (estimated annual percentage change: +0.53%, +0.20%, and +1.43%, respectively), whereas bladder cancer incidence has declined. During the same period, the number of deaths and DALYs attributable to tobacco smoking increased for bladder, kidney, and prostate cancers by 43%, 67%, and 31%, respectively, and DALYs increased by 31%, 52%, and 29%. The burden of genitourinary cancers is highest in Europe, where incidence rates for prostate, bladder, and kidney cancers

are among the highest globally. This pattern reflects, in part, the region's persistently high prevalence of tobacco use. An estimated 173 million adults (24.6% of the adult population) currently use tobacco in Europe. Between 2010 and 2025, tobacco use in Europe has decreased by only 17%, the second-smallest reduction among WHO regions. Europe is also the only region that has failed to achieve the Global Action Plan target of a 30% relative reduction in tobacco use among women, with an estimated reduction of just 9% by 2025. Since 2020, declines in tobacco use have slowed markedly, particularly among women.

#### CONCLUSIONS

Genitourinary cancers continue to impose a substantial global burden, with the highest incidence observed in Europe, mirroring the region's high tobacco use. Europe remains one of the slowest-improving WHO regions, particularly among women, where reductions in tobacco use have nearly plateaued. These findings highlight an urgent need for strengthened, region-specific tobacco control strategies to address the growing burden of genitourinary cancers, particularly in Europe.

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### Health Consequences of Tobacco and Nicotine Use

#### PP042

#### HPV-related oropharyngeal cancer risk perceptions and screening fears among high risk men: The role of tobacco, alcohol and oral health

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#### BACKGROUND-AIM

Oropharyngeal cancer incidence is rising; it is the 8th most common cancer among U.S. men. It presents in two major ways: the classic form, linked to heavy tobacco and alcohol use, and a newer form associated with human papillomavirus-16 and -18 (HPV), transmitted via oral sex. Gay and bisexual men experience high rates of tobacco use, alcohol use, and HPV, increasing their risk relative to heterosexual men. This study examines risk perceptions and screening beliefs in this population.

#### METHODS

We recruited 1699 gay and bisexual men from two dating sites to complete an online survey. Participants reported tobacco use, alcohol consumption, sexual history, and oral health. They also reported perceived risk for oropharyngeal cancer and whether they feared what a doctor might find if screened. Outcomes were dichotomized, with significant bivariate variables included in multivariable regression models. Adjusted odds ratios (AOR) and 95% confidence intervals (CI) were calculated.

#### RESULTS

The average age was 41.5 years; 95% were cisgender and 80% identified as gay. High risk perceptions were associated with cigarette smoking (aOR=2.16 [1.49, 3.13]), dual tobacco use (AOR=4.19 [1.89, 10.02]), more sexual partners (AOR=1.09

[1.03–1.17]), and poor oral health (AOR=1.47 [1.08, 2.01]). Fear of screening was associated with being Hispanic (AOR=2.00 [1.34, 2.96]), queer/self-described sexuality (AOR=3.16 [1.08, 8.96]), and poor oral health (AOR=1.65 [1.19, 2.29]). Hazardous drinking was not associated with either outcome.

#### CONCLUSIONS

This is the first study to demonstrate how gay and bisexual men's oropharyngeal cancer risk perceptions vary by tobacco use, sexual behavior and oral health. Strong associations with smoking and dual tobacco use suggest cancer risk messaging is reaching this group, while the lack of associations with hazardous drinking indicates a gap in awareness. Poor oral health's relationship to both high risk perception and fear of screening suggests a barrier to detection. These findings inform strategies for targeted cancer prevention. Health literacy, providing information to empower people to resist

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### Health Consequences of Tobacco and Nicotine Use

#### PP047

#### Biomarker evidence of toxicant exposure in exclusive cigar smokers: Insights from the Population Assessment of Tobacco and Health study Wave 7 (2022–2023)

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#### BACKGROUND-AIM

Cigar smoking is often perceived as less harmful than cigarette smoking due to assumptions of infrequent use and lower inhalation. However, population-level biomarker evidence for exclusive cigar users, especially by recency remains sparse. Herein, we examined heavy metal and nicotine biomarker concentrations among exclusive cigar smokers versus cigarettes smokers and never tobacco users using data from Wave 7 (2022–2023) of the Population Assessment of Tobacco and Health (PATH) study.

#### METHODS

We compared geometric mean concentrations of urinary cadmium, lead, and uranium (heavy metals) and cotinine (nicotine metabolite) among exclusive cigar smokers (n=79), exclusive cigarette smokers (n=1192), and never tobacco users (n=691). Smokers were stratified by recency of use (Today versus yesterday/day before). Survey-weighted multiple linear regression tested group differences in unadjusted and covariate-adjusted models.

#### RESULTS

As compared to cigarette smokers, cigar smokers were predominately male and older (aged  $\geq 55$  years), with greater representation of non-Hispanic Blacks and higher cardiovascular disease prevalence (all  $p < 0.05$ ). Flavored cigar use was reported by 94% of cigar smokers and cigarillos were most reported, with 41.8% smoking at least one in the past 3 days. Compared with never tobacco users, "today" cigar smokers had significantly higher urinary cadmium (0.30 vs. 0.16  $\mu\text{g/L}$ ,  $p = 0.001$ ), uranium (0.010 vs. 0.005  $\mu\text{g/L}$ ,  $p = 0.002$ ), and cotinine (926.46 vs. 0.14  $\text{ng/mL}$ ,  $p < 0.0001$ ). Cadmium and lead levels among cigar smokers were comparable to cigarette smokers ( $p = \text{ns}$ ), whereas uranium

was higher among cigar smokers ( $p < 0.05$ ). “yesterday/day before” cigar smokers showed elevated lead (0.30  $\mu\text{g/L}$ ) and cotinine (199.4  $\text{ng/mL}$ ) relative to never users. In adjusted models, both recent-use groups remained significantly higher than never users across all metals and cotinine levels.

#### CONCLUSIONS

Exclusive cigar use, even on an intermittent basis, results in substantial systemic exposure to toxic metals and nicotine. These findings challenge the perception of cigars as a safer tobacco alternative and support regulatory actions to reduce flavored cigar appeal, enhance product warnings, and include cigars in cessation strategies.

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## Lung Cancer Screening

### PP045

#### Smoking prevalence projections in the Spanish population and lung cancer screening implications: The future is female

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#### BACKGROUND-AIM

While in Western countries smoking prevalences have generally declined for both sexes, sex-specific smoking patterns remain heterogeneous in many countries. In Spain, in women ages  $>55$  smoking prevalence has been rising since 1991. This study analyses smoking prevalence projections for the Spanish population, focusing on sex and birth-cohort differences and potential impact in screening eligibility strategies.

#### METHODS

We evaluated data from the Spanish National Health Surveys (ENSE) years 1987-2012 and the European Health Survey in Spain (EHSS), years 2009, 2014, 2017 and 2020 to construct detailed information on smoking behaviour in Spain through the Microsimulation Screening Analysis (MISCAN) Lung model. This includes age-specific smoking initiation and cessation probabilities by birth-cohort and sex. In addition, the effects of smoking on non-lung cancer mortality are incorporated. We included cohorts from 1940 to 1975 for this analysis. Using the MISCAN model, we reconstructed and projected smoking prevalence for current and former smokers until the year 2035, stratified by sex and birth-cohort.

#### RESULTS

While overall current smoking prevalence is expected to decrease for both sexes, current smoking prevalence in women is expected to surpass that in men for the 1955-1969 birth cohorts in 2035 (7.6-17.7% versus 5.1-12.1%). Current smoking prevalence for women already surpassed that of men in the 1965-1969 birth-cohort in 2020 (27.8% versus 26.5%). However, among men, the youngest cohorts (1970-1974 and 1975-1979) are projected to have the highest prevalence of current smokers (12.3% and 12.4% respectively), compared to 9.7% and 3.9% in women. Regarding women former smokers, older cohorts (1940-1954) will

remain stable. In contrast, prevalence in younger birth-cohorts (1955-1975) will grow to 30.9%-45.2% in 2035. In men, former smoking prevalence is projected to rise in all cohorts (1940-1975), particularly in the 1950-1954 (42.5% to 57.4%) and 1955-1959 cohorts (39.9% to 60.4%) by 2035.

#### CONCLUSIONS

A change in smoking prevalence is projected for current and former smokers in the next 10 years in Spain. Women in several birth-cohorts (1950-1965) will experience a higher prevalence in current smokers than men. Since smoking prevalence is decreasing in both sexes, we project a bigger decrease in men than in women. Consequently, a higher percentage of men former smokers is projected for the older cohorts (1940-1955), whereas for women former smokers, a higher percentage is projected in the youngest cohorts (1970-1975). These changes in smoking patterns must be addressed, especially considering that former smokers could benefit more from a lung cancer screening programme than current smokers. Differences in selection criteria should be considered, since pack-year criteria exclude a high percentage of former smokers, compared to risk-prediction models.

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## Lung Cancer Screening

### PP046

#### Integrating lung cancer screening in a smoking cessation clinic

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#### BACKGROUND-AIM

Lung cancer is a leading cause of mortality worldwide. The implementation of early-detection programs using low-dose chest computed tomography (LDCT) reduces lung cancer-related mortality. However, participation among eligible smokers in countries where such programs have been introduced remains low. We aimed to investigate the acceptance of participation in a lung cancer early diagnosis program delivered through a smoking cessation clinic and to examine the outcomes of this approach.

#### METHODS

Within the operation of the Smoking-Cessation Clinic of the Pulmonology and Respiratory Failure Unit of the First Department of Critical Care, “Evangelismos” General Hospital, patients were strongly advised to undergo chest LDCT and full lung function testing. The benefits were explained, and LDCT was performed at our hospital using a standardized protocol on a Toshiba Aquilion 80-slice CT scanner (120 kV, 45–47 mA). The protocol was reviewed by the MIT.

#### RESULTS

A total of 120 smokers were included in the study and all of them consented to participate. The median age was 54 years, and 44.2% were male. Based on spirometry, 25.8% had COPD, 12.9%

had asthma, 25.6% arterial hypertension, 18.7% cardiovascular disease, 19.7% depression, and 17.3% an anxiety disorder. The median Fagerström depend score was 6 (IQR 3.15), with 51% scoring above 6. LDCT revealed emphysema in 53.2% of the participants. In three patients, highly suspicious findings were detected (two nodules and one mass) and malignancy was confirmed by biopsy (adenocarcinoma and squamous cell carcinoma).

#### CONCLUSIONS

Certified smoking cessation clinics provide specialized support (counseling and pharmacotherapy) aiming at smoking cessation and relapse prevention. They constitute an excellent opportunity to reduce mortality through the implementation of lung cancer early detection programs, which in turn serve as “teachable moments” that strengthen motivation for smoking cessation. Integrating lung cancer screening programs into the operation of smoking cessation clinics may increase smokers’ participation. Product toxicology, measuring harmful constituents in emissions and

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### Smoke and Aerosol-Free Environments (SAFE) PP048

#### An online Facebook-based intervention to reduce household exposure to second-hand smoke among pregnant women: A pilot feasibility study

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#### BACKGROUND-AIM

Second-hand smoke (SHS) exposure during pregnancy is linked to adverse maternal and neonatal outcomes. Few interventions have addressed this issue via social media, particularly among pregnant women. Social media platforms offer accessible and scalable opportunities for delivering health interventions. This study aimed to evaluate the feasibility and preliminary effectiveness of a Facebook-based intervention to reduce household SHS exposure among non-smoking pregnant Israeli women.

#### METHODS

A quasi-experimental pretest-posttest pilot study enrolled non-smoking pregnant women living with a partner who smokes. Over eight weeks, participants engaged in a private Facebook group offering posts about SHS risks, behavioral tools, communication strategies, and motivational support. A composite Facebook engagement score (0-100) was calculated based on five Likert items (0-4) such as liking posts and commenting. Pre- and post-intervention questionnaires assessed household and car smoking rules, perceived SHS exposure, knowledge and attitudes to create a smoke-free home.

#### RESULTS

Thirty-four women completed the baseline assessment; 25 (73.5%) completed follow-up. Engagement was moderate (Mean 30.00, SD 19.63). Most reported restrictive household smoking rules at baseline, with little change. However, 7 participants (29.2%) reported stricter car smoking rules at follow-up ( $p = 0.02$ ). Knowledge improved significantly (pre mean 57.49, SD = 22.24 vs. post mean 72.36, SD 20.24;  $p = 0.02$ ). Attitudes showed a positive, non-significant trend (pre mean 65.53, SD 23.14 vs. post mean 74.33, SD 21.25;  $p = 0.085$ ).

#### CONCLUSIONS

A Facebook-based intervention to reduce SHS exposure during pregnancy appears moderately feasible and acceptable. The intervention improved knowledge and car-related smoking rules but had limited impact on household smoking rules. Future interventions should consider involving partners and addressing household dynamics directly.

**Tob. Prev. Cessation 2026;12(Supplement 1):A117**

### Smoke and Aerosol-Free Environments (SAFE) PP049

#### Smoke-free health care in the Netherlands

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#### BACKGROUND-AIM

The Dutch government aims for a smoke-free generation in 2040, defined as no smoking youth and less than 5% smoking adults. To reach this, a comprehensive package of measures and actions has been defined on four themes: 1) a smoke- and tobacco-free environment (especially for children, where tobacco products are as unattractive and inaccessible as possible), 2) effective and accessible smoking cessation care and support, 3) smoke-free organizations and 4) smoke-free healthcare. A smoke-free healthcare is of major importance because smoking and good health care do not go together, smoke-free healthcare facilities improve the health of the population and they can play a leading role in strengthening the smoke-free standard. The main objective of Dutch smoke-free healthcare is that the entire healthcare system will be smoke-free by 2030.

#### METHODS

In this national implementation project, a working group has been formed with representatives from major healthcare sector organizations, such as academic hospitals, general hospitals, mental health services, addiction care, elderly care, and disability care. Representatives encourage, activate, and support the realization of smoke-free healthcare. They gather best practices and serve as a driving force for their constituents. The focus is on: 1. Smoke-free buildings and grounds 2. Healthcare professionals and other healthcare workers do not smoke during working hours and are not recognizable as smokers at their workplace 3. Healthcare professionals can, if desired, be supported in quitting smoking 4. Patients are diagnosed with any smoking behaviour and can receive active and repeated support to quit smoking 5. Healthcare professionals and staff can also work smoke-free in outpatient settings 6. Suppliers (such as taxi drivers, painters, laundries, and wholesalers) are actively reminded of the healthcare provider’s smoke-free policy on the premises 7. The smoke-free policy is promoted in all healthcare institution communications

#### RESULTS

All academic hospitals, >80% of general hospitals and more than half of all mental health and addiction care facilities have a smoke-free policy implemented. Their best practices are collected on a central website <https://www.rookvrrijezorg.com/>. For the frontrunners, it turns out to be challenging to still continue a smokefree policy after a couple of years, because new topics and points of interest arise (e.g. sustainability and employee retention). In smaller health care facilities (e.g., homes for the elderly or for the disabled), other problems prevail than in the big facilities.

How about the ethical aspect of a smoking ban for permanent residents and their visitors? How to ensure a healthy working environment for care providers in their clients' homes? During the presentation, facilitators and barriers will be discussed.

#### CONCLUSIONS

It requires a tailor-made approach to find a solution in all types of health care facilities. An active working group that drives the field forward is essential.

**Tob. Prev. Cessation 2026;12(Supplement 1):A118**

## Smoke and Aerosol-Free Environments (SAFE) PP050

### The importance of communication and dissemination framework in tobacco prevention projects: The strategy of the JA-SAFE project

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#### BACKGROUND-AIM

Effective communication is essential to the success of tobacco prevention initiatives, encouraging behaviour change and stakeholders in policy changes. Evidence-based communication and dissemination strategies enhance the visibility, transferability, and sustainability of project outcomes. The recently launched Joint Action on Smoke- and Aerosol-Free Environments (JA-SAFE) project integrates communication as a core workstream to support tobacco control and broader health promotion goals. Drawing on good practices from previous European Union (EU) joint action projects such as Best-Remap and JACARDI, this study aims to demonstrate how structured dissemination planning as well as coherent branding, multichannel engagement, and transparent reporting of project outcomes will be implemented in the JA-SAFE project.

#### METHODS

A comparative review of dissemination frameworks, communication plans, and performance indicators from previous EU Joint Actions was conducted, including analysis of platform selection, audience segmentation, messaging formats, and engagement metrics. Additional insights were derived from social media practices (e.g., LinkedIn communication patterns), website architectures, stakeholder newsletters, and partner-level outreach experiences. Key performance indicators (KPIs) examined included reach, impressions, engagement rates, partner participation, and content diversity. These findings were synthesised to inform a communication model tailored to JA-SAFE project's objectives.

#### RESULTS

The JACARDI project demonstrated the effectiveness of an integrated multichannel approach, combining website hubs, structured social media presence, visual storytelling, and regular partner amplification. KPIs such as post engagement, cross-partner content sharing, and visibility peaks during campaign periods provided actionable benchmarks. Based on these insights, the JA-SAFE project has initiated a communication and

dissemination framework prioritising a centralised website for project transparency and resource sharing; systematic LinkedIn dissemination, aligning with patterns of consistent, partner-driven amplification observed in previous joint actions; harmonised visual identity and messaging; initial KPI tracking focusing on engagement, reach, and partner activity. These elements support early-stage capacity building for JA-SAFE project's communication and dissemination activities in tobacco prevention.

#### CONCLUSIONS

Preliminary results indicate that an integrated, data-driven communication strategy is essential for strengthening the reach and policy relevance of tobacco prevention actions within the JA-SAFE project. Continuous monitoring of KPIs and iterative adaptation of channels and content will guide targeted interventions to maximise dissemination effectiveness throughout the project lifecycle.

**Tob. Prev. Cessation 2026;12(Supplement 1):A119**

## Smoke and Aerosol-Free Environments (SAFE) PP051

### how to prevent penetration of tobacco smoke toxins to dwelling apartments

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#### BACKGROUND-AIM

Secondhand smoke is annoying and causes long-term health effects. Any exposure at a distance of 9 meters (about 28 feet) is dangerous. Surveys in multi-unit buildings found that about 1/2 of people, adults and children, complained about exposure to secondhand smoke at home and their suffering from it. Many people who smoke themselves but detest exposure to neighbors' tobacco smoke gave the same answer. People believe that protection from Tobacco Smoke Incursion (TSI) is long due, according to a 2023 study. The government was called by health experts to provide such protection. This exposure is now compared to all dangerous environmental pollutants. The right to breathe at home air free of tobacco toxins is a basic constitutional right. Parents cannot protect children from tobacco smoke incursion into their homes. This abstract discusses a simple method used to resolve the worldwide problem of Tobacco Smoke Incursion to residences.

#### METHODS

In February 2021 the Clean Air Association and 6 individuals who suffer badly from TSI exposure applied to the Israel Supreme Court claiming that the Ministry for the Environment (MFE) will issue binding rules, under existing standards of air pollution and smelling nuisances to provide such protection, a method which in general is open to be utilized in many countries (Application number 1416/21). Practically the applicants represent close to 3 million people who suffer from TSI. .

#### RESULTS

The application instantly achieved wide public opinion and was covered in the media 68 times, most of them favorably. People became aware that they are entitled to this protection and started presenting individual lawsuits. The Court conducted 3 oral hearings in the application, and in May 2024 issued an order to show cause demanding that the MFE will issue regulations under the Law for the Prevention of Nuisances to prevent TSI. A final judgment is expected soon. In a very simple administrative

action which is open in most countries, either to a court of law or to the relevant government authorities, under existing laws and standards. According to a study in Israel, actual prevention of TSI will also bring a huge reduction of smoking in general, similar to that achieved through prevention of smoking in public places.

#### CONCLUSIONS

TSI prevention can be achieved in a very simple administrative action which is open in most countries, either to a court of law or to the relevant government authorities, under existing laws and standards. According to a recent study, actual prevention of TSI will also bring a huge reduction of smoking in general, similar to that achieved through prevention of smoking in public places.

**Tob. Prev. Cessation 2026;12(Supplement 1):A120**

## Smoke and Aerosol-Free Environments (SAFE) PP052

### Promoting health through smoke- and nicotine-free working hours: Lessons from Danish municipalities

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#### BACKGROUND-AIM

Danish law (“The Act on Smoke-Free Environments”) prohibits smoking and vaping indoors. The majority of Danish municipalities have taken the next step by introducing smoke- and nicotine-free working hours — a concept that extends beyond smoke-free workplaces. Smoke- and nicotine-free working hours mean that employees and managers must refrain from smoking or using nicotine products (including snus, vapes, and nicotine pouches) throughout their paid working hours, whether on or off the premises. The policy aims to normalize a work culture in which tobacco and nicotine use are not part of daily life. This not only eliminates exposure to secondhand smoke, e.g., outdoors at entrances and doors, but also supports employees in quitting, strengthens health equity, fosters a consistent break culture, and ensures that staff act as positive role models for citizens and children. In 2012, the municipality of Fredensborg was the first municipality to introduce smoke-free working hours. This study maps the implementation of smoke- and nicotine-free working hours across Danish municipalities in 2016 and 2025, highlighting drivers, developments, and lessons relevant to other countries.

#### METHODS

Data were collected through telephone interviews and follow-up emails with health consultants in all 98 Danish municipalities. Data collection took place from October–November 2016 and April–June 2025. The 2016 survey examined the presence and scope of smoke-free working hours, decision-making processes, and attitudes. The 2025 survey explored the timing of implementation, policy updates and which nicotine products were covered.

#### RESULTS

In 2016, 16 municipalities had implemented smoke-free working hours for all employees. In addition, 24 municipalities had implemented smoke-free working hours in individual workplaces but not across the entire municipality. Among the municipalities that had not yet introduced smoke-free working hours, 20 percent expressed a desire to do so or were considering introducing them. Two-thirds (64%) did not want to introduce smoke-free working hours or believed that the policy represented too much interference in employees’ private lives. By 2025, 85 out of 98

municipalities had adopted smoke-free working hours, and 46 had expanded the policy to include all nicotine products, except for nicotine replacement therapies, which are approved smoking cessation aids.

#### CONCLUSIONS

Smoke- and nicotine-free working hours are now widespread across Danish municipalities, setting a strong example for workplace tobacco prevention. The municipal sector has been a key driver of this development, while adoption in the private and state sectors remains limited. The Danish experience shows that implementing smoke- and nicotine-free working hours is both feasible and effective in creating healthier, tobacco-free work cultures—offering valuable inspiration for international tobacco-control efforts.

**Tob. Prev. Cessation 2026;12(Supplement 1):A121**

## Smoke and Aerosol-Free Environments (SAFE) PP053

### Smoke free areas; Implementation and evaluation of legislation on smoke-free environments in Sweden

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#### BACKGROUND-AIM

The Public Health Agency of Sweden (The Agency) is responsible for coordinated monitoring tobacco and compiles, analyses and disseminates knowledge in order to prevent related illness. Our mission also includes overall supervision and supervision guidance under the Tobacco Acts. In 2019 Sweden expanded the smoke-free outdoor environments in the Act of Tobacco and Similar Products (the Act) to include outdoor areas intended for use by those traveling with domestic public transports, outdoor seating areas at restaurants, cafés etc. enclosed outdoor areas mainly intended for sports activities, playgrounds where the public has access and entrances to premises and other areas subject to a smoking ban under the Act. The Swedish municipalities are responsible for the supervision of the smoking bans under the Act. The implementation of the new smoke-free outdoor areas included earmarked funds to support municipalities in enforcement and to have national campaigns to inform the public about the regulations. The agency has followed up the compliance of the new smoke-free outdoor environments and has concluded some important factors for a more successful implementation.

#### METHODS

To follow up the compliance to the smoke-free outdoor environments the agency did annual surveys 2019-2022, asking supervisory officers in the municipalities how they assess the compliance to the smoke-free environments. The agency also did a national survey in 2019 and 2022 on how the public perceived exposure to others’ smoke in the smoke-free environments.

#### RESULTS

Both the survey from the municipalities and the public supports that the smoking ban seems to work best at outdoor cafes and restaurants. The smoking ban also seems to work well at playgrounds and sports facilities. The smoking ban seems to work less well at outdoor locations connected to public transportation. A majority of the municipalities replied that the smoking ban was followed only to some extent, and the results for public entrances were similar. The perceived exposure to smoke among the public

was much more common here, compared to the other areas.

#### CONCLUSIONS

Some of the enabling factors that have made smoke-free environments possible include a strong commitment from our politicians and decision-makers. Earmarked funds are important to support municipalities in enforcement and to have national campaigns to inform the public about the regulations. Public awareness and strong support for smoke-free environments before legislation was strengthened with the implementation. The low smoking rates in Sweden also made it easier to introduce new measures for outdoor smoke-free environments. The supervision can be a challenge due to the difficulty to supervise, lack of resources and low priority.

**Tob. Prev. Cessation 2026;12(Supplement 1):A122**

### Smoke and Aerosol-Free Environments (SAFE) PP054

#### Implementation of smoke-free sports grounds in the Netherlands: A case study

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#### BACKGROUND-AIM

Since 2008, smoking has been prohibited in almost all indoor spaces in the Netherlands. At that time, there were no smoke-free outdoor sports grounds. Outdoor smoke-free policies at sports grounds represent an important area of tobacco control, as many people, including youth, spend a substantial amount of their free time participating in sports. There is still no legal smoking ban, nevertheless major steps have been taken to create outdoor smoke-free sports grounds.

#### METHODS

A bottom-up approach based on voluntary action was chosen. At the end of 2015, the Dutch Heart Foundation, Cancer Society and Lung Foundation launched the campaign and movement 'Towards a Smoke-free Generation'. This campaign was used to raise awareness for smoke-free environments, including sports grounds. In early 2016, the first outdoor sports clubs were recruited to implement a smoke-free policy, which in turn generated free publicity. A support package and free smoke-free signage were made available to sports clubs. Influential frontrunners were sought within professional football clubs to propagate the smoke-free message. Important stakeholders, such as sports associations and municipalities, were lobbied to contribute to the goal of smoke-free sports. They provided further persuasive communication and (regulatory) support to sports clubs. This bottom-up movement provides fertile ground for national legislation.

#### RESULTS

In 2018 the association NOC\*NSF, the umbrella organization for sports and sports federations, set the target for smoke-free sports grounds by 2025. They started a campaign, in collaboration with the 'Smoke-free Generation', aimed at the boards of sports clubs to become smoke-free. All stadiums and training facilities of the two Dutch professional football leagues have been smoke-free since the 2020-21 season. Regional public health services and municipalities encourage local sports clubs to implement smoke-free policy. Some municipalities have realized smoke-free

sports grounds through stipulations in their municipal rental agreements with sports clubs. From 2025, all athletics sports clubs have a complete smoke-free policy. 97% of all field hockey sports clubs implemented a complete (65%) or partial smoke-free policy (32%). For three other popular sports, football, tennis and korfbal, it is estimated that about a third to half of all sports clubs have implemented a smoke-free policy. There is a high level of public support, almost 9 out of 10 Dutch people are in favour of smoke-free sports grounds where children also sport.

#### CONCLUSIONS

In the Netherlands, many outdoor sports grounds have been made smoke-free despite the lack of a national smoking ban. An approach of strategic communication, showcasing frontrunners and joining forces with important stakeholders, has proven to be effective. However, local or national legislation may be required to make all sports grounds smoke-free and to optimally contribute to a smoke-free generation.

**Tob. Prev. Cessation 2026;12(Supplement 1):A123**

### Smoke and Aerosol-Free Environments (SAFE) PP106

#### Effect of smokefree policies on preterm birth: A systematic review and meta-analysis

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#### BACKGROUND-AIM

Second-hand smoke (SHS) exposure is a serious public health problem. SHS exposure causes around 1.2 million deaths a year, and women and children are often disproportionately affected. Around a third of female non-smokers and around 40% of children worldwide are regularly exposed to SHS. SHS exposure is a preventable cause of adverse birth outcomes, including preterm birth, which is a major risk factor for serious childhood illnesses and lifelong health disorders. Smokefree legislation reduces SHS exposure. Yet, around 40% of the world's population is not covered by comprehensive smokefree policies. The aim of the systematic review is to assess the current available evidence on the effect of smokefree legislation on preterm birth.

#### METHODS

A systematic review following PRISMA guidelines was conducted. Included studies evaluated multi-country, national, or regional smokefree legislations implemented across workplaces, public

settings including outdoor settings, or both. The outcome of interest was preterm birth. We searched MEDLINE, Embase, and Web of Science, and included studies published from January 1, 2004, up to and including March 20, 2024. Two reviewers independently assessed all search results by title and abstract and by full text for eligibility. Randomised controlled trials and quasi-experimental studies could be included in the final review. Where available, adjusted percentage changes and 95% confidence intervals (CIs) were extracted as effect sizes. Otherwise, effect sizes were extracted and converted into percentage changes. Step changes (immediate risk changes) were pooled separately from slope changes (gradual risk changes). Relative risks were selected from the most adjusted model presented in each study and pooled using a DerSimonian-Laird random-effects meta-analysis. Risk of bias was assessed using a customised form adapted from the Cochrane Effective Practice and Organisation of Care (EPOC) criteria.

#### RESULTS

A total of 16,402 unique citations were screened by title and abstract. We identified 20 eligible studies from: North America (10 studies); Europe (8 studies); Asia (1 study); and South America (1 study). Of the 20 studies, 12 had low and 8 had moderate risk of bias. The meta-analysis found that smokefree legislation was associated with a significant immediate reduction in preterm births of 2.18% (17 studies; approximately 2.8 million events; -2.18 [95% CI: -3.40 to -0.96]), and no additional significant gradual change in preterm births (2 studies; 78661 events; -0.01% [95% CI: -6.73 to 6.73]).

#### CONCLUSIONS

Our findings fit within a much wider evidence base in support of smokefree legislation. Governments who have not implemented smokefree policies should be encouraged to legislate and enforce smokefree environments. For countries with existing smokefree policies, forward-looking policies such as banning smoking in cars with children present or promoting smokefree homes could be considered.

**Tob. Prev. Cessation 2026;12(Supplement 1):A124**

## Smoking Cessation

### PP055

#### 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

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#### BACKGROUND-AIM

Smokers experiencing socioeconomic disadvantage are underrepresented in cessation trials, despite a marked social gradient in smoking. The STOP trial (Smoking Cessation

Using Preference-Based Tools) evaluated a preference-based intervention offering free nicotine replacement therapy (NRT) and/or electronic cigarettes (e-cigarettes), through healthcare professionals.

#### METHODS

STOP is a pragmatic, multicenter, single-blind, intent-to-treat, parallel-group randomized controlled trial. From March 2021 to March 2024, participants were recruited in 17 health centers across 15 French cities. A total of 170 low-income smokers, smoking at least 5 cigarettes per day, and willing to reduce or quit smoking, were randomized to the intervention (N=85) or control group (N=85). Participants randomized to the intervention group received free cessation aids (NRT and/or e-cigarettes) according to their preference, alongside routine care at each visit (10 days, 1 month, 3 months and 6 months and beyond). In the control group, participants received standard counseling and prescriptions as per usual practice. The primary outcome was self-reported abstinence assessed at 6-months and beyond. Secondary outcomes included smoking reduction ( $\geq 50\%$  decrease or cessation), at least one quit attempt, use of NRT or e-cigarettes, and the number of cigarettes smoked per day at 6 months and beyond. We estimated relative risks (RRs) and 95% confidence intervals (CIs) using log-binomial regression for all binary outcomes. This trial was registered on ClinicalTrials.gov (Identifier: NCT04654585) and has been completed.

#### RESULTS

Most participants were 40 years or older (75%) and male (52%). At baseline, they smoked an average of 19 cigarettes per day. After 6 months, abstinence was slightly higher in the intervention group (n=49) compared to the control group (n=53), but the difference was not statistically significant (31% vs. 24%; RR=1.18; 95% CI: 0.62–2.21). Both groups reduced their cigarette consumption, respectively 65% of participants in the intervention and 51% in the control group (RR=1.21; 0.87 to 1.68). E-cigarette use was higher in the intervention group, while NRT use did not differ significantly between groups.

#### CONCLUSIONS

Despite receiving free cessation aids, the intervention group showed comparable quit rates, smoking reduction, and NRT use to the control group. However, the higher uptake of e-cigarettes and the trend toward greater abstinence and reduction suggest potential benefits not captured by statistical significance likely due to the limited sample size. These findings likely reflect the context of the French public healthcare system, where access to smoking cessation support is already relatively widespread. In such settings, enhancing personalized support may be as important as expanding free access, with preference-based tools offering added value for certain smokers.

**Tob. Prev. Cessation 2026;12(Supplement 1):A125**

## Smoking Cessation

### PP056

#### Removal of barriers to optimise access to NRT via stop smoking services in Ireland

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**BACKGROUND-AIM**

Ireland's first National Stop Smoking Clinical Guideline was published in January 2022, outlining recommended stop smoking care for smokers engaging with the health services. The guideline recommended making supports more widely available to clients as access and costs are known barriers to uptake of recommended stop smoking supports by clients. The effectiveness of nicotine replacement therapy (NRT) as a smoking cessation aid is well established; however, cost may act as a barrier to access.

**METHODS**

In 2022, Department of Health funding was provided to the HSE, to establish new stop smoking services in identified areas of economic disadvantage in Ireland, including the offer of free nicotine replacement therapy (combination NRT) to those who engaged with the service for support to quit smoking. In July 2022, this offer was extended to all clients engaging with HSE stop smoking services (regardless of where they lived, or financial means). These enhancements in service delivery significantly increased the accessibility and availability of effective stop smoking care in Ireland.

**RESULTS**

In 2024, 20405 quit attempts were supported by HSE Stop Smoking Services (8601 quit attempts were supported in 2021). Almost 8000 individuals (who would previously have had to pay for NRT) availed of the offer of free NRT via stop smoking services in 2024. There was a significant increase in NRT uptake among services users after the introduction of universal NRT access (78% in 2024 vs 57% in 2021) and higher quit rates at four (59% in 2024 vs 56% in 2021) and twelve (40% in 2024 vs 39% in 2021) weeks.

**CONCLUSIONS**

Overcoming barriers to effective stop smoking care is key to achieving tobacco endgame, especially for the most disadvantaged populations. Investment in stop smoking care to improve access and the introduction of free NRT for everyone using a stop smoking service has increased the effectiveness of stop smoking care in an Irish context and illustrates the benefits of universal access. International policy makers should promote universal access to treatments in future tobacco control efforts.

**Tob. Prev. Cessation 2026;12(Supplement 1):A126**

**Smoking Cessation****PP057****Virtual reality as a valid approach to study the environmental factors associated to smoking**

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**BACKGROUND-AIM**

Nicotine-associated cues and context are relevant determinant factors to smoking craving and relapse. Since ecological studies in smoker's environment are affected by limited control of variables and parameters, the use of laboratory Virtual Reality (VR) provided in the recent years a valid approach for investigations of either at-risk or protective conditions.

**METHODS**

In the past, we performed different studies with VR on the effects of outdoor and indoor smoking environments. Here, we present

more recent studies in both sex smokers on the effects of extinction or enriching therapies vs. cues and context reactivity by immersion and interaction in VR simulations. We investigated, 1) the effect of VR exposure therapy vs. retrieval of smoking memories, and, 2) the effect of VR enriched environmental (EE) simulation vs. cue and context reactivity. We assessed craving, mood and affective responses before and after craving triggers.

**RESULTS**

In study 1, we showed that smoking memory-induced craving was inhibited by VR cue exposure during a period of memory post-retrieval destabilization, confirming that smoking memories may be de-evaluated. In study 2, we observed a significant reduction of smoking craving after exposure to a VR session of EE consisting in sensorimotor and cognitive stimulation. In this study 2, however, EE significantly inhibited cues and context the basal, but not the evoked, smoking craving, suggesting the need of more complex EE configurations (maybe, with social components) in order to gain significant efficacy.

**CONCLUSIONS**

In conclusion, the studies here described confirm the feasibility and validity of the VR approach as a translational model in-between ecological and traditional pen-and-paper studies. We showed that VR offer the possibility to investigate psychological, physiological and behavioural correlates for smokers' response to smoking environments. VR allows to identify the potential effects, as well as the limitations, of environmental intervention for smoking cessation. We strongly stress the integration of pharmacotherapy with specifically identified environmental factors for a potentiated therapeutic response, as we proposed with the concept of Ecocebo (the physical component of the placebo effect; Chiamulera et al., 2024).

**Tob. Prev. Cessation 2026;12(Supplement 1):A127**

**Smoking Cessation****PP058****Opt-out smoking cessation in perioperative and cancer care**

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**BACKGROUND-AIM**

Smokers are at a higher risk of complications and mortality after surgery or cancer treatment. However, healthcare professionals often experience barriers to discuss smoking, resulting in limited delivery of smoking cessation care. An opt-out method, in which patients are automatically referred to cessation support unless they explicitly decline, may help overcome these barriers. We aimed to explore healthcare professionals' perspectives on implementing opt-out smoking cessation care during the perioperative and cancer treatment phases.

**METHODS**

A qualitative study was conducted in the Netherlands using semi-structured interviews with healthcare professionals from various specialisms and hospitals. The interviews were audio recorded, transcribed verbatim, and thematically analysed.

**RESULTS**

Thirteen healthcare professionals from ten hospitals were interviewed. None had experience with the opt-out method, and most worked in hospitals without structured smoking cessation

care. Participants identified surgery and cancer treatment as potential teachable moments for smoking cessation, but noted that patient stress and information overload could limit motivation. Most supported the opt-out approach, anticipating increased patient enrolment, while emphasizing the need to maintain patient autonomy and a positive doctor–patient relationship. A key facilitator for implementation was the establishment of standardized referral processes, while limited time and resources were identified as significant barriers.

#### CONCLUSIONS

The opt-out approach shows good potential. Its effective introduction may depend on the establishment of a structured and accessible smoking cessation care system. Further research is needed to explore how to implement this method and assess the feasibility and effectiveness in clinical practice.

**Tob. Prev. Cessation 2026;12(Supplement 1):A128**

## Smoking Cessation

### PP059

#### Food addiction in individuals with overweight and obesity attending a behavioral intervention for smoking cessation and weight gain prevention: Implications for treatment

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#### BACKGROUND-AIM

Food addiction is a controversial construct that has gained scientific attention. To date, no studies have specifically examined food addiction in individuals with both tobacco use disorder and excess weight who are undergoing smoking cessation treatment. The primary objective of the present study is to investigate food addiction in this population. Specifically, the study aims to: (1) evaluate the prevalence of food addiction; (2) identify variables associated with food addiction in this population; and (3) examine the impact of food addiction on the effectiveness of smoking cessation treatment.

#### METHODS

A total of 120 adults ( $M_{age}=52.73$ ,  $SD=10.91$ ; 54.1% female) with tobacco use disorder and overweight or obesity ( $MBMI=31.75 \pm 4.31$ ) received behavioral treatment aimed at promoting smoking cessation and preventing weight gain in an 8-week randomized clinical trial. Participants were randomly assigned to either cognitive-behavioral treatment for both smoking cessation and weight control ( $n=60$ ) or the same treatment plus contingency management for smoking cessation ( $n=60$ ). Food addiction was assessed using the Spanish adaptation of the Yale Food Addiction Scale 2.0. Several instruments were also used to assess tobacco-related variables, eating-related variables, and transdiagnostic clinical variables. Tobacco exposure was assessed via urine cotinine levels, and body weight was measured using a calibrated medical scale. Group comparisons (with vs. without

food addiction) were conducted, and logistic regression analyses were performed to examine the predictive value of participant characteristics on the presence of food addiction.

#### RESULTS

The prevalence of food addiction in the total sample was 25% (30/120). Smokers with food addiction were younger and presented higher nicotine dependence, a greater number of binge-eating episodes, higher levels of depression, anxiety, and stress, more difficulties in emotional regulation, and higher impulsivity. In addition, the presence of binge eating and depression predicted the onset of food addiction. At end of treatment, the group with food addiction achieved 86.6% 7-day point-prevalence smoking abstinence rates compared to 70% in the group without food addiction and no differences were found between the two groups in smoking abstinence variables ( $p = 0.71$ ).

#### CONCLUSIONS

It is important to highlight the relevance of examining factors that may influence the effectiveness of treatments for tobacco use disorder and obesity, such as food addiction. This study found a 25% prevalence of food addiction among individuals with obesity seeking smoking cessation treatment and identified greater difficulties in this subgroup. The combined intervention was effective in promoting abstinence regardless of the presence of food addiction. These findings underscore the need to further clarify and refine the food addiction construct in order to develop effective interventions that can simultaneously enhance treatment outcomes for both tobacco use disorder and obesity.

**Tob. Prev. Cessation 2026;12(Supplement 1):A129**

## Smoking Cessation

### PP060

#### The current landscape of anti-smoking centres in Lombardy, Italy: Challenges and priorities

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#### BACKGROUND-AIM

In Italy, nearly one in four adults smokes, contributing to 85-90% of new lung cancer cases and over 90000 deaths per year. Although one third of smokers attempt to quit each year, in almost 76% of cases the attempts fail. Those who succeed do so mostly without help (64%), and support services provided by health centres remain underused. A total of 223 Anti-Smoking Centres (CAFs) operate nationwide, with wide heterogeneity in distribution, service models, and organizational features. This study seeks to identify the main challenges and key areas of development for CAFs, focusing initially on centres in the Lombardy Region.

#### METHODS

Managers and staff from Lombard CAFs were invited to participate in an online focus group (FG) and to provide written information on the organization and functioning of their centres. The FG, held in July 2025, addressed five domains: user pathways, challenges, collaborations, user profiles, and development priorities. Recordings were transcribed verbatim and analysed using thematic content analysis. Ethical approval was obtained from Bocconi Ethics Committee.

#### RESULTS

Lombardy hosts 27 CAFs, 19 affiliated with the National

Healthcare Service (SSN) and 8 with the Italian League for the Fight against Tumors (LILT), concentrated mainly in Milan and Bergamo provinces. Centres differ in professional staffing and treatment options, with LILT sites providing exclusively educational and psychological support. Most centres require user co-payment; only a minority request GP referral. 23 CAFs, participated in the study. Existing collaborations within CAFs involve pneumology departments, private companies (Workplace Health Promotion), and EU projects, while participants expressed interest in strengthening ties with GPs, pharmacies, and regional actors involved in lung cancer screening. Current users are predominantly aged over 40, highly dependent on tobacco and with smoking-related comorbidities, which often require hospitalization. Centres wish to reach young consumers of novel nicotine products, foreign-born smokers, and residents of remote areas. CAFs encounter persistent structural and organizational barriers: insufficient staff, limited spaces and resources, stigma associated with addiction services where most CAFs are located, and lack of reimbursement for smoking cessation medications. Low institutional visibility, weak integration with primary care, limited public awareness and emerging novel products consumption further restrict the service reach. Priority areas for development include reimbursement of therapies by the SSN, dedicated spaces for cessation activities, GP training, communication strategies targeting the youth, multicentre research evaluating outcomes, and the adoption of complementary therapies alongside standard treatments.

#### CONCLUSIONS

Findings from the Lombard FG could inform a national survey to be administered to all Italian CAFs, guiding future accessibility policy and service improvements.

**Tob. Prev. Cessation 2026;12(Supplement 1):A130**

## Smoking Cessation

### PP061

#### Compliance with the who clinical treatment guideline for tobacco cessation in adults in Taiwan

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#### BACKGROUND-AIM

WHO published the WHO clinical treatment guideline for tobacco cessation in adults (WHO guideline) in 2024 with 9 strong recommendations and 2 conditional recommendations, because Taiwan has subsidized smoking cessation since 2002. This study aims to explore compliance with the guidelines in Taiwan.

#### METHODS

This is a policy analysis of the current smoking cessation service policy in Taiwan. Compliance with the WHO guidelines was measured in terms of its payment scheme and review criteria that facilitate the implementation of evidence-based practices recommended by the WHO.

## RESULTS

In Taiwan, tobacco users who are interested in quitting can have at least 2 and at most 3 medication courses (for smokers who are at least 18 years of age) and health education courses every year without any charge. Providers are recommended to prescribe medication and health education courses simultaneously. Healthcare providers can prescribe NRT, varenicline, and bupropion according to the patient's situation. Combination NRT and Bupropion combination with NRT is also allowed. To provide more comprehensive chronic disease care, we have integrated smoking cessation services into the metabolic syndrome prevention plan with add-on pay for those providing smoking cessation services for the first time and performing well on outcome indicators. Health-care facilities are also encouraged to include tobacco use status and use of tobacco cessation interventions in their medical records through recognizing tobacco-free hospitals and awarding excellent smoking cessation facilities. Quitline offers basic smoking cessation consultations through LINE, the only digital tobacco cessation service provided by the government. Besides, many healthcare facilities in Taiwan have developed their own apps or LINE services that could enhance the effectiveness of these interventions. Since smokeless tobacco is not widely used in Taiwan, we do not provide smoking cessation services directly to these users; however, we do not exclude dual or multiple tobacco users from receiving this service.

#### CONCLUSIONS

Taiwan has been highly compliant with WHO guideline, but still has to extend services to other kinds of tobacco users and develop more digital modalities to support self-management.

**Tob. Prev. Cessation 2026;12(Supplement 1):A131**

## Smoking Cessation

### PP063

#### Yoga as an intervention for tobacco cessation - A randomized controlled trial

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#### BACKGROUND-AIM

Current management strategies for tobacco cessation, including pharmacological interventions, and other supportive therapies have limitations. Emerging evidence suggests that alternate therapies, particularly yoga, may play a significant role. This study was conducted to evaluate the role of yoga in tobacco cessation among adult tobacco users.

#### METHODS

A prospective, randomised, open-blinded end-point trial was conducted among healthy adult tobacco users. Participants were randomly assigned to either yoga (n=64) or exercise (n=66). The primary outcome measure was 7-day Point Prevalence Abstinence (7-PPA) validated by salivary cotinine levels, at 6 months. Secondary outcomes included Quality of Life (QoL), assessed using the World Health Organization Quality of Life-brief (WHOQOL-BREF), and psychological health outcomes using the Depression, Anxiety and Stress Scale (DASS) at 6 months.

## RESULTS

Between December 2021 to June 2023, 910 adult tobacco users were screened. A total of 130 eligible participants (96.9% male) were included, of which 51 (39.3%) were smoking and 79 (60.7%) were smokeless tobacco users. At the final follow-up, 14 (22%) participants in the yoga group achieved a 7-PPA, compared to 6 (9.1%) participants in the exercise group ( $p=.043$ ) (OR: 2.8, 95% CI: 1.04-8.40). There were significant differences between the groups in quality of life ( $p<.05$ ), as well as psychological health outcomes, including stress and anxiety ( $p<.001$ ) and depression ( $p=.008$ ), at 6 months.

## CONCLUSIONS

Yoga was found to be more effective than exercise in achieving tobacco abstinence, among both smoking and smokeless tobacco users, along with improvements in quality of life and psychological health outcomes.

**Tob. Prev. Cessation 2026;12(Supplement 1):A132**

## Smoking Cessation

## PP064

## Group-based psychological intervention in smoking cancer patients: A clinical experience

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## BACKGROUND-AIM

A substantial proportion of individuals seeking smoking cessation support have a current or past cancer diagnosis. Tobacco use in oncological patients not only worsens prognosis but also interferes with treatment efficacy and quality of life. In response, a structured group-based smoking cessation program was developed for patients with oncological history and/or active disease. This study aims to assess the program's effectiveness within this population.

## METHODS

A descriptive longitudinal design was applied. The sample included 146 participants (28 men, 118 women) enrolled in intervention groups conducted between 2022 and 2024. The program consisted of an initial individual assessment to determine eligibility, followed by ten 90-minute weekly group sessions, and two follow-up evaluations at 3 months (T2) and 9 months (T3) after program completion (T1). Smoking abstinence was self-reported at each time point.

## RESULTS

Descriptive data analysis revealed abstinence rates of 58.9% at T1 (60.7% men; 58.5% women), 41.8% at T2 (46.4% men; 40.7% women), and 26.7% at T3 (32.1% men; 25.4% women).

## CONCLUSIONS

Findings suggest that the group-based smoking cessation program is effective among oncological patients. Nevertheless, sustained abstinence remains challenging due to the dual impact of the disease process and the addictive nature of nicotine. Additional psychosocial and medical variables potentially influencing cessation outcomes were not analyzed in this study and should be explored in future research. The intervention demonstrates promising effectiveness in promoting smoking cessation among cancer patients. These results underscore the importance of

designing tailored cessation strategies that address the specific clinical and psychological needs of oncological populations.

**Tob. Prev. Cessation 2026;12(Supplement 1):A133**

## Smoking Cessation

## PP066

## Enhancing access to smoking cessation support: The development of an online booking platform for smoking cessation specialists in Flanders (Belgium)

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## BACKGROUND-AIM

Despite the well-documented health and economic benefits of smoking cessation services, many smokers face barriers to access professional support. In Belgium, tobacco cessation services are provided by trained Smoking Cessation Specialists and partially reimbursed by the government. However, referrals by other healthcare professionals and uptake by smokers have remained suboptimal. To reduce barriers to evidence-based cessation support, an online platform ([www.tabakologen.be](http://www.tabakologen.be)) was redesigned to simplify access to Smoking Cessation Specialists for both smokers directly and indirectly via healthcare professionals. The aim is to facilitate early engagement with cessation services and reinforce the role of healthcare professionals as proactive referrers.

## METHODS

The platform was restructured to include a geolocation-based search function and a direct online booking system. Smokers can request an appointment with a certified smoking cessation specialist in their region. Additionally, healthcare professionals can request appointments on behalf of their patients. At the platform's launch, website traffic and appointment requests were collected as a baseline measurement.

## RESULTS

Since the platform's launch in May 2025, it has been visited 5910 times. In five months time 240 certified smoking cessation specialists are active on the platform, of whom 110 use the integrated online inbox for direct client appointment requests. A total of 395 appointment requests have been submitted via the online booking system, with a peak in June 2025. Of these requests, 385 were initiated by smokers themselves and 10 by healthcare professionals on behalf of their patients. This initial measurement serves as a baseline, providing a first snapshot of platform usage. In the coming period, efforts will focus on broader promotion of the platform and continued monitoring of appointment request trends to evaluate its impact quantitatively.

## CONCLUSIONS

Digital tools such as online booking systems could help bridge the gap between smokers and professional cessation support. This model demonstrates a scalable and practical approach to integrating cessation referral pathways into routine care.

**Tob. Prev. Cessation 2026;12(Supplement 1):A134**

## Smoking Cessation

## PP067

## Implementing evidence-based care for

## smoking cessation during pregnancy – The mohmquit implementation trial

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### BACKGROUND-AIM

Reducing smoking during pregnancy is a policy priority in Australia where evidence-based guidelines have been available since 2008, yet implementation is inconsistent. The MOHMQuit (Midwives and Obstetricians Helping Mothers to Quit smoking) program was developed to address this. MOHMQuit is a complex systems-change intervention which was co-designed using the Behaviour Change Wheel method. It has clinician, leader and systems elements, aiming to improve provision of guideline-recommended smoking cessation support (SCS) to pregnant people who smoke. The reasoning underpinning the intervention is that the MOHMQuit intervention strategies, co-designed with health professionals, will address identified barriers to providing support. This will result in increased capability of health professionals and maternity services to provide SCS, with increased support offered. This will in turn result in increased smoking cessation by pregnant people.

### METHODS

The MOHMQuit implementation trial used a pragmatic cluster-randomised stepped-wedge design with nine public maternity services in NSW, Australia, as the cluster units. The trial was conducted between May 2022 and December 2024. Multiple data sources were used (postpartum women were interviewed; clinicians were surveyed at baseline and six months later; and data on antenatal records were extracted from the electronic medical record (EMR)), to assess impact on: 1. Clinicians knowledge, skills, confidence and attitudes (mediators of change); 2. Provision of SCS to pregnant people; 3. Cessation outcomes.

### RESULTS

MOHMQuit significantly reduced the barriers experienced by health professionals in providing smoking cessation support, with statistically significant improvement across 17 of the 22 mediators, and large effect sizes found. There were significant improvements in provision of multiple components of SCS as documented in the EMR and as self-reported by clinicians. Significant improvements in cessation were not demonstrated, however many point estimates suggested a positive effect of the intervention. The lack of statistical significance may in part be due to lower recruitment of women than anticipated, resulting in the study being underpowered for this outcome. Strengths of the study include that it was a real-world trial, included all women who smoked at the beginning of pregnancy and birthed at the study sites, regardless of their motivation to quit, and used multiple data sources to assess the impacts.

### CONCLUSIONS

Overall, the results are encouraging in demonstrating a significant improvement in maternity service capability and provision of SCS to pregnant women. The careful, theoretically-informed co-design process ensured the intervention strategies addressed many of the barriers clinicians experience in providing SCS. The systems-change approach was key to making some progress in this intractable problem area.

**Tob. Prev. Cessation 2026;12(Supplement 1):A135**

## Smoking Cessation

### PP068

## A model for supporting tobacco and nicotine cessation in student health services

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### BACKGROUND-AIM

Youth smoking has decreased in Finland, but the increasing use of new nicotine products such as e-cigarettes and nicotine pouches, particularly among students in vocational institutions, is concerning. Daily use of nicotine pouches has grown significantly in recent years. Most experimentation and initiation of nicotine use occur before the age of 20, and high nicotine intake combined with multiple product use causes strong dependence. Nicotine poses serious health risks, especially to developing adolescent brains. Although many young people wish to quit, Finland has lacked cessation support services tailored for youth. Student health services play a critical role in addressing this gap. The aim was to develop and integrate a structured model for supporting nicotine cessation among youth into student health services, strengthening public health nurses' knowledge and practical tools.

### METHODS

The model was developed using service design and the PDCA cycle. This began in 2023 with a theoretical framework and baseline assessment, followed by model development, piloting, and evaluation in 2024. Integration into practice started in 2025. The model comprises four phases: (1) initiating discussion and motivating cessation, (2) preparing to quit, (3) maintaining the cessation plan, and (4) supporting a nicotine-free lifestyle. It is based on the COM-B model and national Current Care Guidelines (2024). Implementation involved cooperation agreements with four wellbeing service counties. Nurses' knowledge and skill needs were assessed through an initial survey. Nurses received training on nicotine-related issues, the model's content, and practical tools, including case-based exercises. Feedback was collected by questionnaire.

### RESULTS

The model was integrated into four wellbeing services counties during 2024–2025, with 399 social and healthcare professionals trained. Initial surveys conducted among public health nurses showed that 91.1% (N=124) felt they did not have sufficient knowledge about the process of quitting nicotine use and how to support it. 87.9% (N=124) felt they lacked adequate means to help young people quit. Post-training results showed that nurses' (N=83) knowledge of cessation support improved by 97.6%. Ability to support nicotine cessation improved by 100% (N=75). 96% (N=75) intend to use the model in their work.

### CONCLUSIONS

There is a clear need for youth-focused cessation support in Finland. The model and its tools are being adopted in student health services, enhancing nurses' competence. Future steps include expanding implementation to additional regions, adapting tools for other youth services, and collecting follow-up data on usability and impact.

**Tob. Prev. Cessation 2026;12(Supplement 1):A136**

## Smoking Cessation

### PP069

## Medical students' opinions on a b-learning tobacco brief intervention: A qualitative study

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### BACKGROUND-AIM

Physicians are at the forefront of counseling smokers. While their training remains poor, it is challenging to implement cessation training in the undergraduate curriculum. Aim: To evaluate 4th grade medical students' opinions on a b-learning tobacco brief intervention. Setting: Medical School of University of Beira Interior, Portugal.

### METHODS

Methodology: the b-learning included an e-learning on tobacco brief intervention, and a face-to-face clinical workshop. A cross-sectional mixed-methods study was applied. This study presents the qualitative results. A thematic and interpretative analysis of the qualitative content was performed based on the consensus of the researchers.

### RESULTS

Participants: 276; 71.4% female; mean age: 22.7 ± 2.9 years. Prevalence of smoking was 10.9% (females 7.2%; males 20.3%). The combination of asynchronous e-learning and face-to-face workshops was considered the main strength. E-learning offered flexibility and the opportunity to study at one's own pace and review content. The practical workshop was crucial for consolidating learning and addressing gaps in the online component. Participants valued the interactive discussions and resolution of clinical cases, which provided an opportunity to apply knowledge and exchange experiences with colleagues and trainers, as well as the chance to clarify doubts immediately. There was strong recognition that the programme had contributed significantly to improving clinical skills and confidence in decision-making. Analysing videos and discussing cases stimulated the exchange of experiences and the resolution of issues. The challenges identified included the perceived workload and the need for discipline in managing time for the online component. Additionally, there was less student engagement with the tools commonly used in b-learning environments, such as open-ended questions for reflection and elaboration, self-assessment, repetition and reinforcement of learning, as well as interactive discussion and open reflection.

### CONCLUSIONS

The blended-learning was effective in combining the convenience of digital resources with the richness of practice-focused human interaction. The latter is seen as a key factor in clinical training.

**Tob. Prev. Cessation 2026;12(Supplement 1):A137**

## Smoking Cessation

### PP070

## Enabling gps to deliver recommended stop smoking care through electronic referral

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### BACKGROUND-AIM

Improved stop smoking care in primary care offers a huge opportunity to prevent chronic disease and improve public health. For healthcare professionals in primary care, recommended stop smoking care can be summarised as "Ask, Advise and Act". This study describes the impact on of better enabling referral to stop smoking services through electronic referral.

### METHODS

In April 2021, an integration between the HealthLink system and QuitManager, the national patient management system for Stop Smoking Services went live, enabling electronic referral from GP information systems to Health Service Executive (HSE) Stop Smoking Services. On receipt, referral processors contact the client and offers them stop smoking support. The HSE Tobacco Free Ireland Programme tracks the number of referrals and the outcome of these referrals on a monthly basis. In 2024, a further enhancement allows GPs to receive referral outcome messages and discharge notification messages relating to the client's referral and episode of care.

### RESULTS

In 2024, 4848 referrals were received from GPs via HealthLink; this compares to 707 in 2021, 1857 in 2022 and 3,566 in 2023. In 2024, 48% accepted the service, 38% were uncontactable, 1% duplicate referrals and 13% declined the service. Highlighting of the availability of electronic referral during an ICGP webinar resulted in an increased number of referrals (n=445) and number of practices (n=236) referring in November 2023. In 2023, the average number of practices referring was 158 per month. This has grown to 220 per month in 2024 (an increase of 39%).

### CONCLUSIONS

Enabling electronic referral to stop smoking services from primary care providers can improve stop smoking care provision to clients. The HSE Tobacco Free Ireland Programme is building on this foundation with educational resources and feedback through collaboration with the ICGP to maximise the key role primary care can play in tackling the harm caused by smoking in Ireland.

**Tob. Prev. Cessation 2026;12(Supplement 1):A138**

## Smoking Cessation

### PP071

## Urologists' beliefs, attitudes and clinical practices to smoking cessation counselling as an effective intervention in urinary cancer prevention and treatment: Findings from survey of urologists in Central Europe

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## BACKGROUND-AIM

Tobacco smoking remains the strongest modifiable risk factor for genitourinary cancers. It contributes to disease incidence, recurrence, progression, treatment complications, and mortality. However, many urologists do not routinely address tobacco dependence or provide cessation support. This study aims to evaluate beliefs and attitudes of urologists to tobacco smoking as a risk factor and their clinical practices in smoking cessation counselling as an effective intervention in prevention and treatment of urinary cancers.

## METHODS

A cross-sectional, multi-country survey is planned to be conducted among urologists in Poland, Hungary, and the Czech Republic. The survey is based on a structured online questionnaire initially designed by group of American urologists and conducted among members of the American Urological Association on their smoking cessation practices (Bjurlin et al. Journal of Urology 2010). It includes 1/ urologist's patients smoking status, 2/ urologists' attitudes toward smoking cessation and perceived role as patient's counsellors, 3/ knowledge of urologists on available smoking cessation interventions, 4/ their prior training in tobacco dependence treatment and access to cessation resources, 6/ perceived barriers to providing smoking cessation counselling, 7/ frequency and type of cessation support offered. Descriptive statistics and multivariable logistic regression models will be used to identify predictors for urologist's smoking cessation assistance, including training, years of practice, volume of cancer patients treated, and personal smoking history.

## RESULTS

The study is expected to provide the first comparative assessment of smoking cessation practices among urologists in Central Europe. We expect to identify substantial variation in clinical engagement of urologists caused by their limited confidence, inadequate training, and scarce access to evidence-based cessation tools. The analysis will likely reveal gaps in urologist's knowledge, inconsistencies in patient's counselling, and system-level barriers. Predictors of proactive cessation support are expected to mirror earlier findings, with formal training and higher exposure to smoking-attributable bladder cancer cases. Real research data and analyses will be presented during the 2026 ECTOH in Milan, Italy.

## CONCLUSIONS

This study will generate reliable, country-specific insights into urologists' readiness, knowledge, and barriers regarding smoking cessation counselling for genitourinary patients in Europe. By identifying predictors for providing cessation assistance and highlighting areas of deficiency, the results will inform on future strategies for national urological societies, healthcare institutions, and public health bodies. Strengthening training frameworks, improving access to cessation resources, and integrating tobacco-dependence treatment into routine urological care may substantially enhance patient outcomes and align European practice with international cancer-prevention priorities.

**Tob. Prev. Cessation 2026;12(Supplement 1):A139**

## Smoking Cessation

## PP072

## Tobacco use and smoking-related practices during hospitalization in a Tunisian

## university hospital

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## BACKGROUND-AIM

Tobacco use remains a leading preventable cause of morbidity and mortality. Hospitalization represents a key opportunity for smoking cessation interventions. In Tunisia, the extent of tobacco use among hospitalized patients and the implementation of brief cessation advice in hospital settings remain insufficiently documented. This study aimed to assess the prevalence of smoking among hospitalized patients, their exposure to smoking by health professionals and the frequency of brief tobacco cessation advice delivered during hospital stays.

## METHODS

A cross-sectional study was conducted among patients hospitalized in ten medical wards of the Farhat Hached University Hospital of Sousse between May and July 2024. Three physicians, previously trained in data collection, administered a structured questionnaire to participants through telephone interviews after hospital discharge.

## RESULTS

A total of 403 responses were collected. The median age of respondents was 53 years (interquartile range: 39–64). The sex ratio (male/female) was 1.3, and 51.1% of our population had at least one previous hospitalisation (n=206). The median duration of hospitalization was 5 days [3-10]. Current smoking was reported by 126 patients (31.3%) : 48.1% of Men and 8.2% of Women. During hospitalization, 70 patients (17.4%) reported having seen a health professional smoking inside the hospital. Brief advice to quit smoking delivered by a health professional during hospital stay was reported by 265 patients (65.8%). Smoking prevalence was significantly lower among re-hospitalized patients compared with those hospitalized for the first time (23.3% versus 39.6%, p<0.001).

## CONCLUSIONS

These findings reveal persistent gaps in hospital tobacco use control in Tunisia, including exposure to smoking by health professionals. Strengthening tobacco-free hospital policies, improving health professional role modelling and integrating systematic smoking cessation support into routine hospital care are critical to maximize the public health impact of hospitalization.

**Tob. Prev. Cessation 2026;12(Supplement 1):A140**

## Smoking Cessation

## PP073

## Practice of counseling Ukrainian primary care physicians on smoking cessation among patients, 2022

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## BACKGROUND-AIM

The WHO First Clinical Guidelines on Tobacco Cessation for Adults emphasize that brief advice delivered by health care providers is among the most effective interventions to support smoking cessation. We examined the current practices, barriers, and opportunities faced by primary care physicians in Ukraine in providing smoking cessation counseling.

## METHODS

In 2022, PHC conducted 45 in-depth telephone interviews with primary care physicians across three regions of Ukraine (Vinnytsia, Ternopil, Chernivtsi) to analyze different aspects of smoking cessation counseling.

## RESULTS

A total of 96% of doctors recognize smoking as a significant risk factor for the development of non-communicable diseases (NCDs). The same portion (96%) reported providing smoking cessation counseling to patients, with the frequency of consultations varying depending on specific diseases (cardiovascular, diabetes, chronic obstructive pulmonary disease, hypertension etc.), conditions (shortness of breath, cough, high blood pressure, pregnancy etc.), patient age and smoking history. All surveyed doctors indicated that they are able to identify smokers with observable indicators - smell, hoarse voice, cough, yellowing of fingers. 89% of doctors emphasize to patients that smoking is a major risk factor for NCD. Most doctors reported conducting counseling in the conventional, question-answer format and tailoring anti-smoking messages by using examples and relevant statistical data. Many physicians highlighted the lack of sufficient, evidence-based information on health effects of newer tobacco and nicotine products. 71% of doctors consistently documented patient's smoking in medical records and 70% of doctors reported taking this information into account in clinical decision making - such as adjusting treatment strategies, selecting medications, and monitoring changes in smoking behavior. Half of the surveyed physicians reported that in their practice, they had never had patients who proactively sought smoking cessation counseling on their own initiative. Instances of self-referral were rare and typically occurred when patients experienced deteriorating health, the onset of illness, or recognized that smoking was contributing to a more severe progression of their disease.

## CONCLUSIONS

Since heavy smokers are primarily recognized by doctors, they are more likely to receive counseling than light smokers, highlighting inequalities in access to care. The limited evidence on the health risks of newer tobacco and nicotine products limit physicians' ability to make strong arguments in smoking cessation counseling. Our study underscores the need for regular training of health care professionals in simple, effective, and evidence-based interventions to enhance awareness of the impact of smoking and strengthen tobacco control measures. Our findings may inform the development of strategies for smoking cessation and the prevention of smoking-related diseases in other countries.

**Tob. Prev. Cessation 2026;12(Supplement 1):A141**

## Sport and Tobacco-Free Promotion

## PP074

## Promoting nicotine-free sport in football – Communication collaboration between the

## cancer society of Finland and the Football Association of Finland

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## BACKGROUND-AIM

New nicotine products such as e-cigarettes and nicotine pouches appeal to young athletes and are highly visible in various media. A joint survey (N=91) with the Football Association of Finland revealed that 47% of adults had observed young football players using nicotine products during club activities. The products included snus (65%), nicotine pouches (63%), and vapes (43%). In Finland, over one-third of 15-year-old athletes have tried or use e-cigarettes, and nicotine pouch use is increasing. Although competitive athletes use nicotine less than their peers, usage increases with age. Nicotine harms health and athletic development by impairing performance, muscle and lung function, and increasing risks of infections, injuries, and illnesses. The tobacco industry markets new products as less harmful alternatives, and up to half of young people are exposed daily to nicotine advertising. Hidden marketing and influencer content appeals to young audiences. Sports clubs reach over half of Finnish youth aged 9–15. Therefore, coaches and adults play a key role in promoting nicotine-free environments. One-third of adults (N=91) reported needing more information about the products and effects. This collaboration aimed to strengthen knowledge of nicotine's harmful effects among adults working with junior football players.

## METHODS

In 2023, the Cancer Society of Finland (CSF) launched a communication partnership with the Football Association of Finland. Activities included news articles in national media, influencer videos with athletes and experts, an advertising video shown during match breaks, and a podcast episode.

## RESULTS

• Four news articles on the association's website  
• Article in coaches' magazine (reach: 18000)  
• Seven main national media hits  
• Influencer videos reached 210833 organic views  
• Advertisement video gained 105229 views and was shown during national team matches (average attendance: 22059 for men, 7000+ for women)  
• One podcast episode (reach: 1336)

## CONCLUSIONS

Communication campaigns can effectively reach adults working with junior football players. Using sports role models and experts increased outreach. Future goals include expanding collaboration and supporting clubs in implementing the Nicotine-Free Sports model developed by the CSF.

**Tob. Prev. Cessation 2026;12(Supplement 1):A142**

## Taxation and fiscal policies

## PP076

## Economic consequences of higher taxes on tobacco in Denmark

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## BACKGROUND-AIM

In 2020 and 2022 tobacco taxes were raised in Denmark and the average price for a pack of 20 cigarettes is now 8.50 €. In 2019,

before the taxes were raised, the smoking prevalence was 20 % (aged 15 and over) and in 2024 the smoking prevalence was decreased to 17 %. The domestic sales fell in the same period from 5.6 bn to 3.5 bn but the cross-border sales have doubled to 1 bn. The Danish Ministry of Taxes has calculated a loss in revenue of 0.7 bn € if taxes were raised so the average in Denmark became 13.5 € (~100 DKK).

#### METHODS

The agency Kraka Economics made a literature study for all relevant parameters and used standard economic methods to recalculate the revenue at an average price of cigarettes 13.5 € (~100 DKK). They estimated the price elasticity in Denmark to -0.4 and instead of a linear correlation between price and cross-border sales they used elasticity. They also took the pandemic in 2020-2021 into account because it changed the pattern of traveling for some time. Kraka Economics calculated the cross-border trade of cigarettes in a variety of ways: Based on the differences in tobacco tax between Denmark and the European countries, differences in weighted average price (WAP) and measurements for the year 2022 compared to the period 2019 – 2022. Finally, Kraka Economics calculated the loss in revenue based on results from Norway which have high prices on cigarettes compared to the rest of Europe.

#### RESULTS

The preferred model of Kraka Economics showed a loss in revenue in Denmark of ~0.1 bn € which was presented in a report. The result gave a lot of media attention and reactions from Danish politicians. In general, politicians must present ways for financing for all political proposals and suddenly it seemed much more likely to find the money and save lives. Politicians from the opposition called the report a game-changer and said financing would now become much easier. However, the Danish Ministry of Taxes didn't change their opinion and said they precisely predicted what happened in 2020 and 2022.

#### CONCLUSIONS

The report and calculation of Kraka Economics moved tobacco taxes up the political agenda in Denmark for a while and hopefully laid the ground for higher tobacco taxes in Denmark. Several politicians said they would like to raise tobacco taxes a lot if they could find the chance.

**Tob. Prev. Cessation 2026;12(Supplement 1):A143**

## Taxation and fiscal policies

PP077

### How responsive is cigarette consumption to prices and income? New Cross-European evidence using open data

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#### BACKGROUND-AIM

Understanding how cigarette consumption responds to changes in prices and incomes is essential for effective tobacco taxation. Although many studies estimate cigarette demand elasticities, most focus on individual countries, and cross-European evidence remains limited. Existing multi-country studies often rely on commercial datasets, constraining transparency and replicability. This paper provides updated elasticity estimates for Europe using a harmonized panel covering both EU Member States and EU

candidate countries for the period 2011-2024. A key novelty is the use of publicly available data from the European Commission's Taxes in Europe database, complemented with national sources for candidate countries. The ongoing update of the EU Tobacco Tax Directive (TTD) gives this research particular relevance, as robust elasticity estimates are needed to inform potential reforms.

#### METHODS

We compiled a harmonized yearly panel dataset from European Commission sources, covering cigarette consumption, prices, and tax rates, and supplemented it with comparable indicators for EU candidate countries from national statistical databases. The primary empirical approach is an instrumental-variable (IV) strategy, using cigarette excise taxes as instruments for cigarette prices to address potential endogeneity. The baseline model estimates price and income elasticities using country and time fixed effects, with robustness checks comparing IV estimates to standard fixed-effects results. In a later step, the analysis will explore heterogeneity across country groups - Western vs. Central and Eastern Europe (CEE) and EU vs. candidate countries - to assess whether structural, regulatory, or economic differences influence elasticity patterns.

#### RESULTS

The analysis confirms that rising prices are an important factor influencing cigarette demand in Europe. Income responsiveness is positive but modest, indicating that economic changes lead only gradually to adjustments in consumption, partly depending on the pace of real income growth. Further analyses will assess whether elasticity patterns differ across Western Europe and CEE countries, as well as between EU Member States and candidate countries.

#### CONCLUSIONS

By incorporating candidate countries and relying on publicly accessible data from the European Commission and national sources, this study broadens the evidence base on cigarette demand in Europe and improves transparency and replicability. Country-group analyses could provide further insights into how economic development, regulatory frameworks, and stages of EU integration shape tobacco consumption. Structured in this way, the study provides strong empirical basis for the formulation of effective and context-sensitive excise tax policies across Europe.

**Tob. Prev. Cessation 2026;12(Supplement 1):A144**

## Tobacco Advertising, Promotion and Sponsorship (TAPS)

PP043

### Increased prevalence of smoking and nicotine use in teenagers associated with participation in tobacco health education

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#### BACKGROUND-AIM

While some studies have found no evidence for a contribution of school policies and programmes to quit behaviour of adolescent smokers, others have found that tobacco health education can reduce teenage smoking. However, information-only approaches that do not target social influences (that include both social competence and social skills development) or media literacy show less effectiveness. In this study, we examine: participation

in tobacco awareness programmes by teenagers in Ireland; and associations between student participation and prevalence of current smoking and prevalence of overall nicotine use.

#### METHODS

The sample comprised a nationally representative, stratified random sample of 5587 15- to 18-year-olds in Ireland, with data collected online in 2024. Current smoking was assessed using past 30-day use and current nicotine use was measured by use of any one of 6 nicotine products (cigarettes, e-cigarettes, moist snuff (snus), nicotine pouches, heated tobacco products, water/shisha pipes). Participation in Tobacco Awareness Education was measured by the question “Think about the last two years. Do you recall having participated in the following activities? Awareness events/information activities about effects and possible harms of Tobacco” (answer categories: never/once/more than once). Analysis were carried out using SPSS V29.

#### RESULTS

In the previous two years, 17.2% (n=829) had participated once, and 17% (n=819) had participated more than once in any awareness events or information activities about the effects and possible harms of tobacco, while 65.8% (n=3175) of respondents had not participated in any such activities. 14.2% (n=758) of the sample were current smokers and 25.4% (n=1317) were current nicotine users. Among smokers who responded to the question on tobacco awareness education programmes, 57.4% (n=377) participated once or more than once and 42.6% (n=280) did not participate in any tobacco awareness education. Among current nicotine users who responded, 53.5% (n=630) participated once or more than once and 46.5% (n=548) did not participate in any tobacco awareness education. Participation in tobacco education awareness programmes was associated with increased odds of both current smoking (OR 3.1, 95%CI 2.6,3.6) and current nicotine composite use (OR 2.94, 95%CI 2.57,3.37).

#### CONCLUSIONS

Only a third of teenagers had participated in tobacco health education in the previous two years. Those who had participated were significantly more likely to be both smokers and users of any nicotine product (OR ~3). This may point to the provision of tobacco awareness programmes for those who are already smoking and using nicotine. Otherwise, tobacco education programmes would appear to have negative effects. Although public health education campaigns are well-documented as being effective in reducing overall tobacco use, our surprising results suggest that further attention to content and outcomes of school programmes is warranted. Health literacy, providing information to empower people to resist

**Tob. Prev. Cessation 2026;12(Supplement 1):A145**

## Tobacco Advertising, Promotion and Sponsorship (TAPS)

### PP044

#### “Unmasking the appeal”: An interactive university-based workshop to strengthen health literacy on tobacco industry tactics and new nicotine products

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#### BACKGROUND-AIM

In recent years, the tobacco and nicotine industry has developed increasingly sophisticated strategies to market e-cigarettes, heated tobacco and oral nicotine pouches, often presenting them as modern, safer alternatives to conventional cigarettes. These tactics are not new: they deliberately draw on a long history of industry strategies, recycling old clichés and adapting them to the cultural codes of each generation. These narratives are particularly attractive to adolescents and young adults and contribute to underestimating health and environmental risks. Universities are strategic settings to foster health literacy and critical thinking and to counter industry-driven misinformation. The aims of this interactive workshop are to enhance participants’ ability to recognise and deconstruct tobacco industry tactics, improve knowledge of the health and environmental risks of new nicotine products, and promote informed, smoke- and vape-free choices within the university community and the general public.

#### METHODS

A 5-hour workshop, approved and funded by Sapienza University of Rome and scheduled for spring 2026, will include: (1) a scientific–educational plenary session with national experts on tobacco use, nicotine addiction, second-hand exposure, emerging products and cessation services; and (2) a guided experiential pathway with six thematic stations. These stations address flavours and product design, glamour and influencer marketing, misleading harm-reduction claims, industry interference in policy and research, “secret science” and doubt-creation, and environmental harms and greenwashing. Visual panels, historical and contemporary advertising examples, facilitated discussion and optional respiratory tests/voice-based screening tools will be used to “unmask” industry narratives. The workshop targets students, academic and healthcare staff, and citizens. Pre- and post-intervention questionnaires will assess changes in knowledge, perceived risks, attitudes towards industry messaging and awareness of cessation services.

#### RESULTS

We expect improved health literacy regarding tobacco and nicotine products, greater ability to critically resist both traditional and repackaged industry tactics and increased uptake of cessation resources. We also expect to observe improvements in pre–post questionnaire scores, particularly in knowledge, risk perception and attitudes toward industry messaging.

#### CONCLUSIONS

The workshop is designed to “unmask” recurring narratives and empower participants to recognise and reject deceptive marketing. Embedding this initiative within a large public university will help consolidate tobacco-related health literacy as a core element of campus culture, fostering a more informed, critical and tobacco-free academic community. This model may be adapted to other universities and community settings as a scalable health-literacy

intervention within comprehensive tobacco control strategies.  
**Tob. Prev. Cessation 2026;12(Supplement 1):A146**

## **Tobacco Advertising, Promotion and Sponsorship (TAPS)**

**PP078**

### **Scrolling past the law? Nicotine promotion on TikTok in a regulated market**

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BACKGROUND-AIM

Social media platforms have become key environments shaping adolescents' health behaviours. Youth are increasingly exposed to nicotine and tobacco products online, despite strict national marketing bans. The international nature of platforms such as TikTok challenges countries' abilities to enforce existing legislation, as content easily crosses borders. At the same time, platform-specific community guidelines on promoting nicotine products remain poorly enforced. This study examined how nicotine products are promoted on TikTok within the Danish regulatory context, where all forms of nicotine marketing are prohibited.

METHODS

A fictitious 13-year-old Danish TikTok profile was created to explore exposure to nicotine-related content. After initial keyword searches for nicotine pouches and e-cigarettes, videos that appeared on the profile's 'For You Page' (FYP) were collected. Videos featuring nicotine pouches or e-cigarettes and receiving substantial engagement (>500 interactions) were screen recorded and thematically analyzed.

RESULTS

The underage profile was extensively exposed to nicotine-related content, after minimal engagement with nicotine-related keywords. Algorithmic mechanisms sustained exposure through continued recommendations on the FYP. Three dominant marketing-related themes were identified: (1) New product promotion (reviews, demonstrations, and introductions of new flavours, formats, and sizes); (2) Identity markers (use of nicotine brands to express identity, ranking of products, or linking products to gendered lifestyles); and (3) Seasonal promotion (themed content for Christmas or Halloween, including giveaways and discounts).

CONCLUSIONS

Despite a complete national ban on nicotine advertising in Denmark, TikTok content promoting such products remains easily accessible to underage users. These findings highlight how digital platforms undermines national legislation and emphasize the need for stronger platform accountability and harmonized international regulation to protect young audiences. Tobacco endgame, strategies and policies to

**Tob. Prev. Cessation 2026;12(Supplement 1):A147**

## **Tobacco Industry Interference**

**PP085**

### **Breaking the bonds: Making tobacco toxic for celebrities**

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BACKGROUND-AIM

A common industry tactic is to use celebrity spokespeople to glamorize and normalize tobacco products, especially to target youth. In 2024, Philip Morris International began a partnership with DJ Steve Aoki, a globally popular musician. Philip Morris paid Aoki to put his name on an IQOS device, to promote IQOS on social media, and to perform at IQOS-branded concerts around the world.\* It's no wonder Philip Morris saw him as the perfect partner - Aoki has 19 million followers on social media, almost half of whom are young people under age 25. The Campaign for Tobacco-Free Kids (CTFK) sought to fracture this relationship in order to send the message to celebrities that partnering with Big Tobacco isn't worth it. \*<https://manilastandard.net/lifestyle/314513228/steve-aoki-spins-sustainability-into-fashion-with-iqos-recycled-jacket-collab.html>

METHODS

CTFK applied its counter-industry framework to build a strategic campaign to break Steve Aoki's bond with Philip Morris. CTFK's campaign put pressure not only on the relationship between Aoki and Philip Morris, but between Aoki and the board of his charitable foundation as well.

RESULTS

Less than a year later, Aoki stopped posting about IQOS on social media, stopped performing IQOS concerts, and saw a prominent doctor step down from the board of his brain health foundation. He claims that he is no longer partnering with Philip Morris. Additionally, Philip Morris International was legally sanctioned over an IQOS concert in the Philippines, a country in which it's used to having free rein.

CONCLUSIONS

We will describe the campaign and discuss the importance of a number of its strategies, including: relationship mapping, coalition work, legal strategy, creativity and flexibility - and how each played a role in making tobacco money too toxic for one celebrity spokesperson and his associates.

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## **Tobacco Industry Interference**

**PP086**

### **Tobacco in films: Industry influence and public health risks**

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BACKGROUND-AIM

While some contemporary portrayals of smoking may be driven by artistic or narrative choices, the persistence of tobacco imagery raises concerns about ongoing indirect industry influence and the normalization of tobacco use. This review examines the influence of the tobacco industry on film content through funding or other incentives that encourage the inclusion of tobacco-related scenes and imagery. Such content may shape audience behaviors and

potentially promote harmful or unhealthy practices, particularly among young people. The aim is to develop recommendations that limit tobacco-industry influence and strengthen public health protection.

#### METHODS

A scientific literature search was conducted using the Consensus Search Engine, drawing on sources such as Semantic Scholar and PubMed. Additional online searches were performed on relevant institutional websites, including the Truth Initiative, the Centers for Disease Control and Prevention (CDC), and NORC at the University of Chicago. The research question focused on the extent and nature of tobacco-industry influence on film portrayals of tobacco imagery and scenes in recent years.

#### RESULTS

Tobacco imagery in films remains widespread globally, including in recent productions, where it often glamorizes smoking and rarely depicts its negative health consequences. One report from the U.S. Centers for Disease Control and Prevention (CDC) found that one in four youth-rated movies continues to include tobacco imagery, and that the decline in the number of movies featuring smoking stalled between 2010 and 2018. A recent report by NORC revealed that tobacco or nicotine imagery was present in 51% (77 of 152) of top films released in 2024, up from 41% (58 of 141) in 2023. The number of tobacco-related incidents increased by 43%, reaching 2854 incidents, compared with 1,989 in the previous year. This growing exposure to tobacco in films is a significant public health concern, given the well-established causal relationship between exposure to smoking in movies and youth initiation of tobacco use.

#### CONCLUSIONS

Stronger policies are needed to curb tobacco imagery in films, reduce youth exposure, and protect public health. Recommended measures include: regulating tobacco-industry involvement in film production to limit the inclusion of imagery that may encourage harmful behaviors; introducing mandatory health warnings before films containing tobacco-related scenes, clarifying that such content is included solely for narrative purposes and is not intended to promote imitation; requiring studios to certify that they have not received payments or incentives from tobacco companies; and encouraging governments to discontinue subsidies for films that depict tobacco use.

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### Tobacco Industry Interference PP087

#### Targeting adolescents online: Tobacco industry promotion of tobacco and nicotine-containing products in Spain

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#### BACKGROUND-AIM

In Spain, almost half of adolescents (47.5%) aged 14 to 18 report having ever used e-cigarettes. Additionally, 27.8% of adolescents in this age group have smoked waterpipes at least once in their lives. Therefore, the use of tobacco and nicotine-containing products (TNCPs) has become a significant public health concern in recent years. Previous research has explored how exposure to tobacco products on social media may increase the likelihood

of initiation among adolescents. This study aims to identify the marketing strategies used by the tobacco industry to promote TNCPs on social media within the Spanish context.

#### METHODS

A systematic search was conducted across several social media platforms (Instagram, X, YouTube, TikTok, and Facebook) for exposure and promotional content related to TNCPs. The social media listening platform YouScan was used to monitor relevant content from January 2024 to January 2025. The #SponsoredByBigTobacco study by Tobacco Free Kids served as reference to identify the seven marketing strategies among the contents analyzed: (1) direct product marketing, (2) paid influencers, (3) sports brands collaborations, (4) music and festival collaborations, (5) arts and culture creators, (6) discounts, contests and giveaways and (7) paid ads.

#### RESULTS

6 out of 7 marketing strategies were identified within the Spanish context. The only strategy not detected was paid ads. Across platforms, brands employ direct marketing and influencer endorsements, partnerships with sports, music, and cultural events and psychological triggers such as discounts, giveaways, and contests. These strategies leverage aspirational lifestyles, experiential marketing, and urgency-based incentives to enhance product appeal and foster repeated use. Their wide reach, subtle integration into youth-oriented content, and alignment with social trends amplify their impact, underscoring the need to address how such promotional practices influence health behaviors in young populations. The digital exposure to TNCPs normalizes use among adolescents and young adults (AYAs), potentially increasing initiation risk and reinforcing consumption habits. Despite comprehensive European and Spanish regulations banning tobacco advertising, significant enforcement gaps persist, mainly in social media environments, influencer content and event-based marketing. Loopholes, covert advertising and limited oversight allow these strategies to remain highly visible to AYAs, with regional regulatory responses varying in scope and effectiveness.

#### CONCLUSIONS

The tobacco industry employs multi-channel marketing and advertising strategies, with social media serving as a key avenue for targeting young audiences. Therefore, it is urgent to develop a comprehensive approach that combines up-to-date regulation, active surveillance and awareness-raising campaigns to prevent the spread of novel and emerging tobacco and nicotine products.

**Tob. Prev. Cessation 2026;12(Supplement 1):A150**

### Tobacco-Free Generation PP080

#### A vision for a feasible endstate for tobacco control: A recreational use scenario

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#### BACKGROUND-AIM

Recognizing that there is no single definition for what the ultimate endgame is, at least one major public health organization defines it as the end of commercial tobacco and nicotine use, apart from Medicine Authority-approved medications. However, contrary to

endgame policies, there has been little discussion about what the end-state for tobacco control would look like. The public health community should benefit from exploring what the tobacco and nicotine environment should look like beyond the “less than 5% tobacco use prevalence” target.

#### METHODS

We conducted a critical review of the feasibility of successfully achieving an end to commercial tobacco and nicotine use in a high-income country by 2040 and beyond.

#### RESULTS

It is unlikely that an end to commercial tobacco and nicotine use could be achieved in the long term, if by “commercial” we also mean the illicit marketing of such products. We propose that an endgame scenario that is more likely to be achieved, would be based on the recreational use of these products, where only tobacco products that are minimally or non-addictive are sold and where only nicotine products that cause little to no harm are allowed. In this scenario, as tobacco products are no longer (or minimally) addictive, there is no need for nicotine-replacement therapies to be regulated as medications. Further, anti-contraband measures extend to control over the tobacco cultivars that are grown and marketed, as well as to control over critical components of tobacco and nicotine products.

#### CONCLUSIONS

Critically looking at the feasibility of various ultimate endgames should help the public health community debate over what an endstate for tobacco control should look like. In turn, having a better idea of what a tobacco and nicotine environment could look like beyond the “less than 5% tobacco use prevalence” target, is expected to enrich the discussions around what endgame policies are better suited to take us there. Tobacco endgame, strategies and policies to permanently end the tobacco

**Tob. Prev. Cessation 2026;12(Supplement 1):A151**

## Tobacco-Free Generation

### PP081

#### Implementation and impact of comprehensive tobacco- and nicotine-free policies in healthcare institutions: A systematic review

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#### BACKGROUND-AIM

Tobacco consumption represents a significant public health challenge, contributing to preventable diseases and premature mortality. In 2020, 22.3% of the world's population (approximately 1.25 billion people) used tobacco. While numerous countries have implemented restrictions in public spaces and increased prices, healthcare facilities play a critical role in reducing usage

through smoke-free policies and education. Nevertheless, the effectiveness of these measures varies, and tobacco addiction persists. There is a need for a systematic evaluation of global standards to identify models that effectively reduce tobacco use. This review aims to assess the implementation strategies and impacts of comprehensive tobacco- and nicotine-free policies in healthcare institutions worldwide, focusing on cessation rates, valid quit attempts, and the reduction of exposure to secondhand smoke and aerosols.

#### METHODS

This protocol outlines the methodology for a systematic review that will follow PRISMA guidelines. The review will include studies published from 2005 onward, conducted worldwide, and sourced from PubMed, Scopus, Embase, WHO databases, and gray literature. It will include randomized and non-randomized studies assessing the implementation and impact of comprehensive tobacco- and nicotine-free policies in healthcare settings. Key outcomes to be evaluated include impact on cessation rates, reduction in secondhand smoke and aerosol exposure, and policy compliance. The results will be analyzed using the RE-AIM framework.

#### RESULTS

This review is registered in PROSPERO and is currently ongoing, so findings are not yet available. Our goal is to identify concrete evidence on how WHO-aligned policies affect smoking prevalence in healthcare facilities. We are looking for measurable behavioral changes in both patients and medical staff.

#### CONCLUSIONS

These findings will contribute to the optimization of public health strategies by defining best practices for policy enforcement in healthcare settings. By identifying successful implementation strategies, this review will support the creation of environments that effectively protect staff and patients from exposure to both traditional tobacco and emerging nicotine products

**Tob. Prev. Cessation 2026;12(Supplement 1):A152**

## WHO Framework Convention on Tobacco Control (FCTC)

### PP088

#### Are the tobacco control scale and MPOWER scores measuring tobacco control policy adoption similarly?

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#### BACKGROUND-AIM

Effective monitoring of tobacco control policy implementation is crucial for evaluating impact, tracking progress, identifying gaps, and informing evidence-based public health action. Standardised

instruments enable systematic assessment of policy adoption and enforcement. Two widely used country-level tools are the Tobacco Control Scale (TCS) and MPOWER. The TCS evaluates six cost-effective measures: price, smoke-free laws, public spending, bans on tobacco advertising, promotion and sponsorship [TAPS], health warnings, cessation treatment, with a maximum of 100 points indicating full implementation. MPOWER also covers six components with a composite score of 29 pts derived by summing ratings for each component (1–5, except for monitoring [M] 1–4). While both instruments assess tobacco control policy adoption, their comparability has not been systematically evaluated. This study examined the extent to which TCS and MPOWER scores capture similar dimensions of tobacco control implementation across countries.

#### METHODS

A comparative cross-sectional analysis was conducted using 2019 TCS and MPOWER data from 45 countries (28 European, 17 Latin American). The year 2019 was selected as it is the only year with a TCS report available for Latin America. TCS and MPOWER total scores were standardised as z-scores to facilitate comparability. Pearson ( $r$ ) and Spearman (rank,  $r_s$ ) correlations were calculated to assess linear associations between paired components and composite scores. Agreement between scores and ranking concordance was examined using Bland–Altman plots and Kendall's tau-b correlation. Non-parametric bootstrapping used to estimate 95% confidence intervals (CIs).

#### RESULTS

Paired-components assessing adoption of smoke-free laws ( $r=0.42$ ,  $p=0.001$ ), TAPS bans ( $r=0.69$ ,  $p<0.001$ ), health warnings ( $r=0.50$ ,  $p<0.001$ ), and treatment ( $r=0.69$ ,  $p<0.001$ ) were moderately to highly correlated. TCS and MPOWER composite ( $r=0.54$ ,  $0.29–0.72$ ,  $p<0.001$ ) and official total scores ( $r=0.62$ ,  $0.40–0.77$ ,  $p<0.001$ ) were also moderately correlated across countries. Spearman's  $r_s$  for ranking position also showed a positive and statistically significant correlation for both total scores ( $r=0.38$ ,  $0.05–0.65$ ;  $r=0.52$ ,  $0.22–0.74$ , respectively). Kendall's  $\tau_b$  confirmed moderate rank agreement for both composite ( $\hat{\tau}_b=0.27$ ,  $0.02–0.50$ ,  $p=0.01$ ) and official total scores ( $\hat{\tau}_b=0.40$ ,  $0.17–0.60$ ,  $p<0.001$ ). Bland–Altman analysis revealed no systematic bias between scales, though wide limits of agreement suggest substantial variability for specific countries.

#### CONCLUSIONS

The TCS and MPOWER scores measure overlapping but not identical aspects of tobacco control policy adoption. Their moderate correlations indicate that both tools consistently identify countries with strong or weak policy performance but differ in how they weigh and aggregate domains. Consequently, they should not be used interchangeably for research or policy evaluation purposes.

**Tob. Prev. Cessation 2026;12(Supplement 1):A153**

## WHO Framework Convention on Tobacco Control (FCTC)

PP089

### Protecting public health policy from industry interference: A comparative evaluation of FCTC article 5.3 implementation in South Asia and Eastern Europe (2019–2023)

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#### BACKGROUND-AIM

Article 5.3 of the World Health Organization Framework Convention on Tobacco Control (WHO FCTC) obliges Parties to protect public-health policy from the commercial and other vested interests of the tobacco industry. Despite near-universal ratification 184 Parties (as of 2024) implementation remains inconsistent. This study compares the extent and quality of Article 5.3 implementation in South Asia and Eastern Europe between 2019 and 2023, identifying progress, persistent interference, and opportunities to strengthen regional governance.

#### METHODS

A comparative, desk-based policy analysis was conducted using (1) WHO FCTC Implementation Reports (2019–2023) from the FCTC Implementation Database; (2) Global Tobacco Industry Interference (TII) Index scores (2019, 2020, 2021, 2023) published by STOP – Stopping Tobacco Organizations and Products; and (3) government and media records documenting tobacco-industry interactions and corporate-social-responsibility (CSR) activities. Countries were assessed against the eight core measures in the Guidelines for Implementation of Article 5.3 (transparency, avoidance of partnerships, CSR prohibition, conflict-of-interest management). South Asia was defined as Bangladesh, India, Nepal, Pakistan and Sri Lanka; Eastern Europe as Armenia, Azerbaijan, Georgia, Moldova and Ukraine. Given changes in Index coverage, analysis focused on country-level trends. The 2023 Index reflects incidents mainly from April 2021 to March 2023.

#### RESULTS

Acknowledgment of Article 5.3 improved modestly in both regions, but institutionalization into binding law and practice remains limited. The 2023 Global TII Index reported: Sri Lanka 42 (rank 21/90) – strong implementation with codes of conduct and public-disclosure rules; Ukraine 44 (rank 25/90) – good progress on transparency and coordination; Bangladesh 72 (rank 80/90) – high interference linked to CSR acceptance; Georgia 83 (rank 90/90) – severe interference and minimal safeguards. Common gaps included the absence of mandatory registers of government–industry interactions, cross-ministry codes of conduct, and enforceable penalties for violations. Missing reports were coded as “no report” to avoid conflating data absence with non-compliance.

#### CONCLUSIONS

Implementation of FCTC Article 5.3 in South Asia and Eastern Europe remains partial and reactive. Most governments recognize the principle but lack robust, legally binding mechanisms to prevent industry influence. To close this gap, Parties should (1) legislate disclosure of all tobacco-industry interactions; (2) impose a full ban on tobacco-industry CSR; (3) integrate Article 5.3 provisions into civil-service codes across ministries; and (4) establish regional peer-review systems for accountability. Sustained and transparent implementation of Article 5.3 is essential for effective delivery of all other FCTC measures.

**Tob. Prev. Cessation 2026;12(Supplement 1):A154**

## Youth and Adolescence

PP090

### Nicotine use in Danish youth: From research to education

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#### BACKGROUND-AIM

In Denmark, approximately one in three (35%) young people aged 15–29 use nicotine products or smoke tobacco. There has been a notable increase in the use of nicotine pouches and vapes in recent years. For example, the proportion of young people aged 15–29 using vapes rose from 4% in 2020 to 10% in 2024, and the use of nicotine pouches increased from 9% to 13% in the same period. Among 15–17-year-olds, the use of vapes increased markedly recently from 10% in 2023 to 14% in 2024. Given the harmful effects of nicotine on the developing brain, the increasing prevalence among youth highlights the need for preventive action. In 2024, The Danish Cancer Society launched a project aimed at preventing nicotine use among youth, with support from TrygFonden. As part of this project, a qualitative study was conducted to explore young people's experiences with and attitudes towards nicotine.

#### METHODS

The study consisted of three focus group interviews and 14 duo interviews with students from compulsory schools (primary and lower secondary schools), Danish efterskole (independent residential schools), upper secondary schools, and vocational schools. Additionally, an autoethnographic home assignment, in which participants selected and reflected on two nicotine-related materials and recorded their personal responses, was also given to duo interview participants. In total, 43 young people aged 13–21 participated. Nearly one third of the participants had no experience with nicotine products, while the remaining two thirds had varying levels of experience.

#### RESULTS

The study provides insight into the role nicotine products play in young people's everyday lives, the factors influencing their use, and their expectations and attitudes towards prevention and educational campaigns. Key findings: - Nicotine is used everywhere—at home, during leisure time, at parties, and at school - Many young people use nicotine to relax and concentrate - Relationships and social groups play a significant role in nicotine use - There is a lack of knowledge among youth about health risks - Addiction is seen as embarrassing, and some young people fear addiction, but there is limited understanding of what addiction entails - The cost of nicotine products is a concern for young people - Parents' perspectives are important to young people, but many youth perceive that their parents lack sufficient knowledge about nicotine - Age influences young people's views on nicotine products - Young people are not receptive to all messages and perspectives in campaigns and educational programs

#### CONCLUSIONS

Nicotine plays a significant role in the everyday lives of Danish youth, who lack knowledge about the consequences of nicotine use and about addiction. Therefore, based on the findings of the study, the Danish Cancer Society has developed an educational program for the final years of compulsory schooling, which is now being disseminated nationally.

**Tob. Prev. Cessation 2026;12(Supplement 1):A155**

## Youth and Adolescence

PP091

### Knowledge and perceptions of young people

### regarding sales restrictions on nicotine products: A survey among Italian secondary school students

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#### BACKGROUND-AIM

Italian law prohibits the sale of all nicotine-containing products to individuals under 18 years of age. Nevertheless, one in three Italian minors smokes cigarettes or uses other nicotine products. The aim of this study is to assess adolescents' knowledge of sales restrictions on nicotine-containing products. In addition, the study seeks to estimate their support for innovative legislative proposals aimed at reducing tobacco use among young people.

#### METHODS

This study used data from a survey conducted between November 2024 and May 2025 among 7396 underage students (<18 years) attending middle and high schools across five Italian regions. Students were asked about their knowledge of the Italian ban on the sale to minors of conventional cigarettes, heated tobacco products (HTPs), electronic cigarettes (ECs), and nicotine pouches (NPs). In addition, their support for the following tobacco control measures was assessed: (i) raising the minimum legal age for purchasing tobacco to 21 years (Tobacco21, T21), (ii) prohibiting sales to individuals born after January 1, 2009 (Smoke-Free Generation, SFG), and (iii) increasing inspections and penalties for the sale of nicotine products to minors. Logistic regression models adjusted for sex, school grade, and region were used to identify factors associated with awareness that the sale of these products to minors is prohibited.

#### RESULTS

In our sample of underage students, 14.2% were unaware that the sale of conventional cigarettes to underage individuals is prohibited, 21.1% were unaware of this ban for HTPs, 29.5% for ECs, and 16.0% for NPs. Users of conventional cigarettes or other nicotine-containing products were more likely to be unaware of the sales ban on conventional cigarettes than non-users (OR = 1.41 and 1.29, respectively). Overall, 44.9% of students (53.8% among non-smokers and 9.6% among smokers) expressed support for T21, 61.4% (68.7% among non-smokers and 28.7% among smokers) supported the SFG measure, and 73.7% (82.8% among non-smokers and 30.5% among smokers) supported strengthening enforcement measures.

#### CONCLUSIONS

About one in five Italian minors does not know that the sale of nicotine-containing products is prohibited to underage individuals. Surprisingly, those who use these products showed lower awareness of the ban, suggesting that their ability to purchase them is likely not hindered. New youth-oriented legislative proposals received broad support, particularly among non-smokers, while nearly three out of four adolescents expressed support for strengthening enforcement measures. It is therefore necessary, at a minimum, to intensify monitoring of retail outlets to ensure compliance with existing regulations.

**Tob. Prev. Cessation 2026;12(Supplement 1):A156**

**Youth and Adolescence****PP092****Curbing cravings with nicotine: The normalization of nicotine and tobacco use for weight control on X/Twitter**Chandler Carter<sup>1</sup>, Hy Tran<sup>1</sup>, Sherry Emery<sup>1</sup>, Anna Kostygina<sup>1</sup><sup>1</sup>Social Data Collaboratory, NORC at the University of Chicago, Chicago, Illinois, USA**BACKGROUND-AIM**

Social media platforms are major channels for tobacco marketing targeting adolescent and young adult women. Such platforms can be a powerful tool for surveillance of targeted promotion strategies and social norms related to tobacco and nicotine use among this population. This study assessed how nicotine and tobacco products are discussed and promoted in the context of weight management on X/Twitter.

**METHODS**

Keyword queries were used to collect posts co-referencing tobacco use and weight control/fitness/body image from X/Twitter from 09/01/2021 to 10/31/2023 using TalkWalker—an official X/Twitter data provider. Key measures included tweet volume, user profile descriptions, hashtags, and engagement metrics. Posts were coded for thematic content including promotional strategies using a combination of machine learning methods, keyword algorithms, and human coding.

**RESULTS**

Keyword filters captured 45275 relevant tweets. Among users reporting age in their X/Twitter bio, 39.8% were under the age of 18 and 56.3% were age 18 to 26. Popular hashtags were #weightloss, #edtw, #vape, #smoke, and #fitness. Highly engaged tweets featured themes related to self-monitoring through body “checks”/selfies while smoking, mental health conditions (especially eating disorders) and nicotine as a coping strategy, glamorization of nicotine use through celebrity references, sex/gender stereotypes, unhealthy dieting practices, promotion of novel nicotine products including new user appeals (e.g., appetite suppressant claims), as well as promotion of products (e.g., diet, fashion, technology) on e-commerce websites.

**CONCLUSIONS**

Tobacco control initiatives should not only counter the glamorization of tobacco use among youth and young adults but also address the normalization of nicotine as a weight-control tool and its portrayal as a coping mechanism for mental health challenges. Public health messaging must target vulnerable populations, including youth and individuals with eating disorders, while dispelling misconceptions about nicotine’s role in weight management and wellness. Additionally, regulatory efforts should monitor and restrict promotional content on social media platforms, particularly influencer-driven campaigns that embed nicotine marketing within weight-loss and lifestyle narratives. Collaboration with social media companies to enhance content moderation and provide mental health resources is critical to mitigating the risks posed by these harmful online discourses.

**Tob. Prev. Cessation 2026;12(Supplement 1):A157****Youth and Adolescence****PP094****Älä ole koekaniini (don't be a guinea pig) –****Award-winning anti-vaping campaign**Matleena Eemola<sup>1</sup>, Elina Hartikainen<sup>1</sup>, Marianne Hietaranta<sup>1</sup>, Hanna Soini<sup>1</sup>, Tuuli Hynynen<sup>1</sup>, Heidi Löflund-Kuusela<sup>1</sup><sup>1</sup>Cancer Society of Finland, Helsinki, Finland**BACKGROUND-AIM**

The 2023 School Health Survey shows a significant increase in e-cigarette use among Finnish youth compared to 2021. Among 8th–9th graders, 7% of boys and 6% of girls used e-cigarettes daily (2021: 3% and 1% respectively). Young people lack knowledge and hold misconceptions about the harms of vaping. The tobacco and nicotine industry are increasingly using social media and influencer marketing to attract young users. Studies show that nearly half of youth are exposed to tobacco brand content on TikTok, Instagram, and Snapchat, which increases the risk of initiation. The WHO and FDA emphasise the need for counter-campaigns to reveal industry tactics and strengthen critical thinking among youth (WHO 2024; FDA 2023). It is already known that vaping is harmful to health, even though the full extent of its harms is not yet known. The idea behind the Älä ole koekaniini campaign was that if you vape, you are a test subject for the tobacco industry. The Cancer Society of Finland (CSF) aimed to raise awareness engagingly, reach youth widely on social media, and guide them to reliable information about vaping.

**METHODS**

The CSF launched the campaign in January–February 2024 to increase knowledge among 12–15-year-olds of the harms of vaping and industry strategies to attract users. The campaign’s key message was that vaping harms are not fully known, and that vapers are guinea pigs. To ensure relevance, youth (N=10) were involved in planning through focus group interviews. AI was used in the video content, and the campaign was deployed on popular platforms: Snapchat, TikTok, and YouTube. The website provided more detailed information on the subject. Social media influencers and organisations were encouraged to share content pro bono.

**RESULTS**

During the campaign, the campaign content reached over 4 million hits. Over one-third of the target group was reached, and over 13% - thousands of young people - clicked to read more on the campaign website. Pro bono collaboration reached over 45000 users and the campaign was also displayed on some school and health centre screens. Feedback from a small sample showed that 10/12 respondents felt more informed and 7/9 reported increased motivation to avoid using e-cigarettes after seeing the content. The campaign won the 2024 Finnish Comms Awards in the Launch or Breakthrough category and the Influencing Campaign of the Year award. It also won the 2025 international Digital Communication Award for Gen Z Communications and Small Budget Campaign. Due to its success, it was relaunched in late 2025 for youth and also for their close adults, for whom messaging was adapted.

**CONCLUSIONS**

The nicotine industry attracts new users through rapid product development and youth-oriented products. Providing accurate information via channels that reach young people is crucial in preventing experimentation and use. In youth campaigns, involving the target group in planning ensures effective messaging. Well-designed materials remain relevant and can be reused.

**Tob. Prev. Cessation 2026;12(Supplement 1):A158**

**Youth and Adolescence****PP096****Young nicotine and tobacco users' views on motivation to quit and cessation services**Sidsel Jørgensen<sup>1</sup>, Charlotta Pisinger<sup>2</sup>, Julie Lorenzen<sup>1</sup>, Sofie Rasmussen<sup>2</sup><sup>1</sup>Center for Clinical Research and Prevention, Copenhagen University Hospital - Bispebjerg and Frederiksberg, Copenhagen, Denmark, <sup>2</sup>Center for Clinical Research and Prevention, Copenhagen University Hospital - Bispebjerg and Frederiksberg, Copenhagen, Denmark, and National Institute of Public Health, University of Southern Denmark, Copenhagen, Denmark**BACKGROUND-AIM**

Tobacco and nicotine products are highly addictive, and their use is associated with harmful effects on mental and physical health. One in three Danish youths uses tobacco or nicotine products. Many youths attempt to quit unassisted and report failing these attempts. This study aimed to explore what drives youth motivation to quit and their engagement with cessation services.

**METHODS**

Focus group interviews with 24 youths aged 16-20 from six municipalities in Zealand (Denmark) were conducted among current or previous users of tobacco and nicotine products. Four interviews were conducted with youths who had previously participated in municipal cessation activities. Informants were recruited by smoking cessation counselors and through snowball sampling methods. Participation was intensified by gift card provision. The interviews were audio-recorded and transcribed verbatim following pseudonymization. Data were analyzed using thematic network analysis.

**RESULTS**

Two global themes were identified in the study. The first "Contributing factors that motivate youths to quit use" comprised three organizing themes: 1) Reflections on finances and accessibility, 2) Reflections on social norms, and 3) Reflections on physical and mental health consequences. The second global theme "youth's thoughts on contributing factors that motivate cessation service engagement" contained two organizing themes: 1) The importance of a supportive counselling atmosphere and 2) making cessation participation an appealing offer.

**CONCLUSIONS**

Cessation offers should be tailored to meet the needs of youth. Youth reflections underscored economic consequences, health risks, and perceptions of identity as users or non-users as central factors motivating quit intentions. Youth valued the benefits of cessation services, such as free and easy access within school or work hours. Engagement relied on a supportive counseling atmosphere, including group formats in a safe environment, where trusting relationships between the counsellor and youth were central. Future efforts should apply knowledge of what motivates youth to quit, enroll and participate in cessation support for more youth-centered and effective cessation activities.

**Tob. Prev. Cessation 2026;12(Supplement 1):A159****Youth and Adolescence****PP097****Flexiquit vaping: An acceptance and****commitment therapy digital therapeutic for youth vaping cessation**Maria Karekla<sup>1</sup>, Eleana Lamprou<sup>1</sup>, Jaimee Heffner<sup>2</sup>, Megan Kelly<sup>1</sup>University of Cyprus, Nicosia, Cyprus <sup>3</sup>University of Massachusetts Medical Center, Massachusetts, USA, <sup>2</sup>Fred Hutchinson Cancer Center in Seattle, Seattle, USA**BACKGROUND-AIM**

Youth vaping has risen rapidly across Europe and Cyprus, as in 2019, 17.7% of students across ESPAD countries, and 20.5% in Cyprus, reported e-cigarette use, making e-cigarettes the most commonly used tobacco product among youth. This trend carries substantial risks, including nicotine addiction, lung injury and inflammation, higher respiratory morbidity, and elevated likelihood of initiating and escalating cigarette smoking. Despite calls to action (e.g., U.S. Surgeon General), cessation research for adolescents and young adults remains sparse, with few rigorous trials and limited long-term follow-up. Digital approaches show promise, while the only randomized evaluation to date of a youth/young-adult digital program (This is Quitting) improved 7-month abstinence among quit-ready participants, underscoring the need for engaging, theory-driven tools that also serve users at lower readiness to quit. We present FlexiQuit Vaping, a culturally tailored, smartphone- and SMS-delivered Acceptance and Commitment Therapy (ACT) program for adolescents and young adults (15–29) in Cyprus, designed to engage users across the readiness spectrum.

**METHODS**

FlexiQuit Vaping was co-developed with youth and clinical experts to produce a gamified, avatar-guided app with micro-lessons, in-app practice, and supportive messaging. A randomized controlled trial (n=150) is conducted, comparing FlexiQuit Vaping to a control condition (waiting list). Primary outcomes at 6 months include readiness to quit, 24-hour quit attempts and cotinine-verified 30-day point-prevalence abstinence.

**RESULTS**

The underlying ACT platform was evaluated with young adults (18–30) in a pilot RCT (n=61), showing strong acceptability (satisfaction 3.8/5) and a higher proportion reporting a 24-hour quit attempt (87.5% in ACT on vaping vs. 75.9% in incentivized text message control). Changes in quit readiness (+0.96 in ACT on vaping vs. +0.72 in control) and cotinine-confirmed 30-day abstinence (4.2% in ACT on vaping vs. 0% in control) favored ACT but were below pre-set efficacy benchmarks, supporting a fully powered trial. Complementing this, a 6-day diary study demonstrated high adherence (9/10 completed all entries), daily session ratings around 4.0–4.3/5, universal willingness to recommend the app, and actionable feedback on avatar design, content depth, and text-message cadence-evidence of strong usability and acceptability to inform refinement.

**CONCLUSIONS**

Building on encouraging preliminary findings and user-centered diary insights, FlexiQuit Vaping is evaluated in a larger trial. If effective, it offers a scalable, engaging digital therapeutic to reduce youth vaping and contribute to the Tobacco Endgame strategy.

**Tob. Prev. Cessation 2026;12(Supplement 1):A160****Youth and Adolescence**

**PP098****Trend analysis of youth use of quitline services from 2021 to 2025: A starting point for building smoke-free healthy cities**

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**BACKGROUND-AIM**

Youth smoking in Taiwan fell from 7.8% (2008) to 2.0% (2023) after the 1997 Tobacco Hazards Prevention Act, but in 2023 e-cigarette usage reached 3.2% in junior high and 6.3% in senior high (~54,000 youths). We analyzed youth quitline usage (May 2021–June 2025) to track quit intention, motivation, and outcomes, and to evaluate policy and youth promotion, focusing on short-video campaigns.

**METHODS**

Trend analysis of case-management records were from the Taiwan Health Promotion Administration Quitline (May 2021–June 2025). Policies included expanding pictorial warnings to 50% of packs (2023) and tighter regulation of e-cigarettes and tobacco. Youth-focused promotion focused on the 2023–2024 Student Short Video Competition, which required embedding Quitline and health-education content; 119 entries were collected via Ministry of Education forwarding, with press conferences and award ceremonies to boost visibility. In 2025, outreach expanded to quarterly Instagram events, collaboration with health-promoting schools to upload youth materials, and a “Youth Action Training Camp × AI Creative Video” to train volunteers as campus promoters and peer supporters. Eligible participants were 12–17 years old, self-referred, and consented to case management. Variables: demographics, referral source, quit intention/motivation, daily cigarettes, household smoking, smoke-free home, and 6-month quit success (follow-up to Feb 2025). Cross-year comparisons evaluated effects.

**RESULTS**

1409 youths received case management: 241, 155, 323, 376, 314 (2021–2025 H1). Males 85.5%, females 14.5%. Self-referred 78.1%; health bureau 14.3%. Quit intention 74.0%. Motivations shifted from self-determination (29.5–33.5%) and external requests (32.7–50.8%) in 2021–2023 to legal penalties in 2024–2025 (28.4% in 2024; 52.3% in the first half of 2025). Smoking intensity moved toward lighter use: <10 cigarettes/day rose from 61.0% (2021) to 87.7% (2025), while 11–20 cigarettes/day declined from 24.7% to 9.0% and ≥21 cigarettes/day from 14.3% to 3.2%. Six-month success improved from 62.5% (2021) to 86.7% (early 2025); overall 67.9%. Short-video and social-media efforts expanded reach (111134 views in 2023–2024). However, 47.7–70.3% lived with smokers and only 25.7–48.3% reported lived at smoke-free homes.

**CONCLUSIONS**

Strengthened policies and youth-focused promotion—short-video contests, school collaboration, social media, youth volunteers—

were associated with higher uptake and better 6-month quit. Household smoking remain key obstacles, therefore, priorities are smoke-free homes/schools, scalable digital tools and cross-sector collaboration. The limitations of this study: non-random sampling, incomplete responses, six-month outcomes only to Feb 2025. This work was funded by the Health Promotion Administration, Ministry of Health and Welfare. The content of this research may not represent the opinion of the Health Promotion Administration, Ministry of Health and Welfare.

**Tob. Prev. Cessation 2026;12(Supplement 1):A161**

**Youth and Adolescence****PP099****Assessing the perception of an anti-smoking social media campaign targeted at young people: An international qualitative study**

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**BACKGROUND-AIM**

One of the main obstacles to the implementation of the WHO Framework Convention on Tobacco Control (FCTC) is the interference of the tobacco industry (TI) which enables them to target new consumers and foster lifelong addiction. In response to these harmful global tactics, the WHO FCTC Knowledge Hub for Public Awareness and the WHO FCTC Knowledge Hub for Article 5.3, in collaboration with a group of representatives of youth non-governmental organizations (NGO) from around the world, have developed social media content to inform and empower young people against these practices. The objective of this study was to assess the perception of both messages and creative approach among young people from various cultural backgrounds and to identify areas for improvement prior to launch.

**METHODS**

A qualitative study was conducted in nine countries: Argentina, Cameroon, Kenya, India, Thailand, Jordan, Algeria, France and Poland. Two online focus groups of five to six participants, aged 18 to 30, were held in each country: one group was composed of participants with an average socioeconomic status and the other of participants of average/above-average socioeconomic status. Each group was composed of a variety of social profiles in terms of gender, tobacco smoking or use of new nicotine products, and geographical origin (rural or urban area). Six tobacco industry tactics were covered in social media content and pre-tested: - Adding filters to make cigarettes appear less harmful - Product diversification and packaging aimed at young people (e-cigarettes) - Sales tactics aimed at young people - Targeting vulnerable populations or those questioning their identity - Using corporate social responsibility - ‘Harm reduction’ arguments to sell new nicotine products

**RESULTS**

Overall, the preliminary analysis highlighted two key findings. Firstly, participants found the communication content informative. Secondly, they perceived the communication approach of criticising the industry as a strength as it avoided blaming tobacco users. However, participants found the formats too long to read, and the impact of the message varied according to their use of tobacco or new nicotine products. In the end, three messages appeared to be more persuasive by participants: product diversification

and packaging aimed at young people (e-cigarettes), sales tactics aimed at young people, and 'harm reduction' arguments used to promote new nicotine products. The final results of the study may be presented at the conference.

#### CONCLUSIONS

The campaign was well received by the target audience around the world, regardless of their geographical background. Messages related to new nicotine products appear the most compelling to the target audience. These findings provide valuable insights that can be used to contribute in a global response to the tobacco industry's attempts to target young people.

**Tob. Prev. Cessation 2026;12(Supplement 1):A162**

## Youth and Adolescence PP101

### Does perceived stress moderate the link between the intention to lose weight and the use of various tobacco and nicotine products among Hungarian adolescents?

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#### BACKGROUND-AIM

There is substantial evidence that perceived stress and intention to lose weight (ILW) are independent predictors of smoking and e-cigarette (EC) use among adolescents, however, little is known about their effect on heated tobacco product (HTP) use. Furthermore, it is unclear whether perceived stress modifies the effect of ILW on various tobacco/nicotine products' use. This study aims to explore the association between perceived stress, ILW, and current conventional cigarettes (CC), EC and HTP use among Hungarian adolescents, and to test if the relationships between ILW and current product use are moderated by perceived stress.

#### METHODS

The online, cross-sectional HBSC Hungary survey was conducted between April–June, 2022, involving a representative sample of Hungarian adolescents from grades 5th, 7th, 9<sup>th</sup> and 11th (N=6,291, 49.1% males). Descriptive characteristics of the weighted sample were explored by Chi-square test, means and standard deviation and Mann-Whitney U test. Three separate hierarchical binary logistic regression analyses were conducted with current CC, EC and HTP use as the outcome variables and ILW as the covariate. The moderator effect of perceived stress was added as an interaction term into the regression models. Age, sex, body mass index (BMI), family affluence scale variables were included as control variables.

#### RESULTS

Mean age of the sample was 14.9 years (SD=2.41), current use of CC, EC, and HTP use was 22.9%, 24.1%, and 14.8%, respectively. Among girls, current use was significantly greater for CC and HTP use, but not for EC use (24.6%,  $p<0.001$ ; 15.7%,  $p=0.044$ ; 24.8%,  $p=0.222$ , respectively), compared to boys (21.2%, 13.9%, 23.4%,

respectively). Mean BMI of the sample was 21.0 kg/m<sup>2</sup> (SD=4.53), and 40.0% of adolescent reported ILW (girls: 49.0%, boys: 31.9%,  $p<0.001$ ). In the weighted and adjusted regression models, both perceived stress and ILW increased significantly the odds of current CC and EC use, but for current HTP use, ILW did not have a significant effect (for perceived stress: AOR\_(CC)=1.13, 95%CI:1.10–1.17; AOR\_(EC)=1.12, 95%CI:1.09–1.16; AOR\_(HTP)=1.05, 95%CI:1.01–1.09; for ILW: AOR\_(CC)=1.64, 95%CI:1.11–2.42; AOR\_(EC)=1.95, 95%CI:1.35–2.83; AOR\_(HTP)=1.41, 95%CI:0.92–2.17). Interaction between perceived stress and ILW to predict current CC and EC use was detected, but not for current HTP use. The interaction term between ILW and perceived stress was significant and negative ( $b=-0.062$ ,  $p=0.009$ ), indicating that perceived stress moderates the effect of ILW on current CC and EC use.

#### CONCLUSIONS

Our findings suggest that both perceived stress and ILW may have effect on current CC, EC, and HTP use among Hungarian adolescents. However, the positive effect of ILW decreases as perceived stress increases. Tobacco prevention interventions for adolescents should consider incorporating stress management and weight concern-related contents.

**Tob. Prev. Cessation 2026;12(Supplement 1):A163**

## Youth and Adolescence PP102

### Sharp increase of e-cigarette use among Polish schoolchildren: Findings from the global youth tobacco survey and other adolescent surveys

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#### BACKGROUND-AIM

The Global Youth Tobacco Survey (GYTS) is a global CDC and WHO coordinated survey aimed to monitor the use of tobacco and nicotine products by schoolchildren and their knowledge, beliefs and attitudes toward tobacco and nicotine products use and relevant control policies. This paper evaluates the current prevalence and trends in e-cigarette use in Polish adolescents and makes an attempt to identify current needs and challenges in tobacco and nicotine products control in Poland.

#### METHODS

GYTS is based on cross-sectional, nationally representative, school-based and self-administered questionnaire survey of students aged 13 to 15 years. In Poland, GYTS was conducted five times (in 1999, 2003, 2009, 2016 and 2022), with only one survey round based on regional sample of adolescents. GYTS includes a two-stage sampling proportional to school enrollment size, with sizes from approximately 3000 to 4000 schoolchildren. Current analysis of e-cigarette vaping by Polish adolescents is predominantly based on results of youth surveys conducted in Poland since 2010, including GYTS Poland rounds from 2016

and 2022. International comparisons are based on GYTS results from other countries, especially European.

#### RESULTS

Currently, the use of e-cigarettes among Polish adolescents is substantially more frequent (22%) than the use of all tobacco products (17%) and almost two times more frequent than smoking of conventional cigarettes (12%) and using heated tobacco (10%). Many young e-cigarette users simultaneously use other tobacco products, in particular conventional cigarettes. Prevalence of e-cigarette use in Polish schoolchildren belongs to the highest in Europe. Results of GYTS Poland and other surveys indicate on sharp increase in e-cigarette and poly-tobacco use among youth in the past decade, especially among boys. GYTS data show that susceptibility of tobacco use tends to steadily and quickly increase in Poland (from 20% in 1999 to 39% in 2022).

#### CONCLUSIONS

To refer to current tobacco control needs and future challenges in Polish children and youth, there is an urgent need to enforce the following tobacco control activities: 1/ limiting the price affordability of e-cigarettes and other tobacco and nicotine products among adolescents, 2/ increasing the age limit for selling tobacco and nicotine products to minors, 3/ making tobacco and nicotine products less attractive for adolescents (plain packaging, ban on their display in points of sale, ban on sale of flavor products, 4/ implementing the school-based tobacco control programs at national level, 5/ implementing the ban on the use of e-cigarettes and other tobacco and nicotine products in all public places, 6/ conducting youth-tailored social and media campaign, 7/ creating mobile applications to prevent and quit the use of tobacco and nicotine products by youth, 8/ building the national system for monitoring and evaluation of youth tobacco behaviors, beliefs and attitudes.

**Tob. Prev. Cessation 2026;12(Supplement 1):A164**

## Youth and Adolescence PP103

### Nicotine-free vocational school model – Preliminary findings from Finland

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#### BACKGROUND-AIM

While smoking is declining among Finnish adolescents, emerging tobacco and nicotine product use, such as nicotine pouches and e-cigarettes pose new challenges in vocational schools. The Nicotine-Free Vocational School Model, developed by the Cancer Society of Finland, is a comprehensive package of tools and methods aiming at strengthening nicotine prevention and health-enhancing school environment through school tobacco policy, staff training, cessation support, and multisectoral collaboration. Our study is part of the EU Joint Action Prevent Non-Communicable Diseases (2024–2027). Here we assess feasibility and practical implementation of the Model, including staffs' readiness for implementation, and their awareness of school tobacco policies and guidelines.

#### METHODS

Baseline surveys were conducted in one vocational school with

four campuses (management n=9; staff n=78; students n=215), assessing school policy and guideline awareness, support needs and observations of nicotine use. Follow-up surveys are ongoing and the final follow-up data will be collected in autumn 2026.

#### RESULTS

Baseline data indicated strong support for nicotine-free school policies. All management respondents (9/9) and the majority of other staff (68/78) reported commitment to promoting a nicotine-free school environment, and nearly all were aware of the school's guidelines (management 9/9; staff 62/78). However, gaps between policy and practice were observed: among staff, 57% reported that intervening in students' nicotine use was difficult, mainly due to unclear or insufficient guidelines (39%), not knowing the student (39%), lack of time (31%), limited support from management (24%) and concerns about being perceived as the "tobacco police" (23%). Among students, 67% reported observing students using nicotine products in indoor school areas, and 87% observed use outdoors on school premises. Additionally, 38% observed staff using nicotine products outdoors. Only 33% of students indicated that staff intervened in students' nicotine use, and 26% reported that no consequences followed when students had been caught.

#### CONCLUSIONS

The findings indicate that while commitment to promoting a nicotine-free school environment is high among management and staff, there are gaps between policy and practice. Staff encounter challenges in addressing students' nicotine use due to unclear guidelines, limited time, and concerns about enforcement. Students observe frequent use of nicotine products on school premises, with limited staff intervention and infrequent consequences. These results highlight the need for strengthened implementation, including clearer communication of school policies and defined responsibilities. Ongoing follow-up and evaluation will provide further evidence to inform broader national adoption and refinement of the Nicotine-Free Vocational School Model.

**Tob. Prev. Cessation 2026;12(Supplement 1):A165**

## Youth and Adolescence PP104

### LungHealth4Life: Early intervention on tobacco prevention and lung health in primary school

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#### BACKGROUND-AIM

Chronic respiratory diseases (CRDs) remain a major contributor to morbidity, mortality and long-term health inequalities across Europe. Early-life exposures, including tobacco smoke, second-hand smoke, air pollution, respiratory infections and socio-economic disadvantage, influence children's lung health trajectories. Strengthening prevention in childhood is therefore essential. School-based programmes offer a strategic opportunity to enhance lung health literacy, prevent tobacco and nicotine products uptake, reduce exposure to second-hand smoke, and support healthy respiratory development. The LungHealth4Life (LH4L) project addresses this by integrating comprehensive health education and lung function testing with inequality mapping across three European settings. At submission, the protocol is finalised and pilot implementation has begun, with first findings forthcoming.

**METHODS**

LH4L is a multicentric, pre–post intervention study in primary schools in Hungary, Poland and Portugal. The intervention includes a total of 900 children aged 6–11 receiving: (1) age-appropriate education on lung health, tobacco and nicotine harms, clean air and respiratory infection prevention, and (2) standardised lung function testing. Questionnaires are completed by children (knowledge, attitudes, behaviours), parents/caregivers (symptoms, exposures, socioeconomic context) and teachers/school staff (feasibility and implementation feedback). Schools were selected via inequality mapping.

**RESULTS**

The intervention was co-developed through an evidence-based, multi-country process integrating educational frameworks, clinical guidance and contextual inequality data to define the optimal early-life prevention package. The protocol outlines educational content, lung function testing procedures, data collection and implementation monitoring. Country adaptations demonstrated flexible delivery models suitable for diverse school and health system structures. With the protocol available through the LH4L Community of Practice (CoP), replication across Europe and beyond is feasible.

**CONCLUSIONS**

LH4L aims to demonstrate the feasibility of a school-based approach combining comprehensive health education and lung function testing to support healthy lung trajectories and strengthen early CRD prevention. Special focus is given to early detection of impaired lung function among children. A substantial component of the programme addresses tobacco and novel nicotine products, equipping children to avoid early uptake and reduce second-hand exposure. Findings will inform scalable strategies for child-focused lung health promotion across Europe.

**Tob. Prev. Cessation 2026;12(Supplement 1):A166**

**Youth and Adolescence****PP105****From cigarettes to e-cigarettes: Findings from two school-based surveys in Tunisia**

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**BACKGROUND-AIM**

Tobacco use remains a major public health concern worldwide, particularly among adolescents, for whom early experimentation increases the risk of long-term dependence and adverse health outcomes. In recent years, the diversification of tobacco and nicotine products, including e-cigarettes, has raised new challenges for prevention efforts. Understanding patterns of tobacco experimentation and use, as well as associated behaviors, is essential to inform effective school-based and community interventions. This study aimed to assess trends in tobacco experimentation and current use among high school students in Sousse, Tunisia, and to identify factors independently associated with tobacco product experimentation.

**METHODS**

Two successive cross-sectional studies were conducted among

adolescents randomly selected from four high schools in Sousse. The questionnaire was self-administered anonymously to participants in their classrooms in the presence of pre-trained physicians.

**RESULTS**

A total of 1399 and 1342 high school students participated in 2018 and 2019, respectively with a female predominance (60.5% and 63.2%). The prevalence of tobacco experimentation was 29.4% in 2018 and 26.7% in 2019, while current cigarette use was 9.8% and 7.4% ( $p=0.026$ ), respectively. Current e-cigarette use (adjusted OR 6.4 [4.5–9.0]), cannabis experimentation (adjusted OR 5.3 [2.7–10.7]), and alcohol use (adjusted OR 3.9 [2.5–6.3]) were the main factors independently associated with tobacco products experimentation among students.

**CONCLUSIONS**

Tobacco experimentation is strongly correlated with other substances use among high school students in Sousse. National programs addressing substances use among Tunisian youth should integrate a comprehensive and multisectoral approach of health promotion.

**Tob. Prev. Cessation 2026;12(Supplement 1):A167**

**SCHOOL PROJECT****A nationwide model promoting nicotine-free environments in Finnish vocational colleges SP08**

Nicotine-free vocational college model

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**BACKGROUND-AIM**

Nicotine use is more common among vocational college students in Finland than among general upper-secondary students. Despite legal bans, the implementation of nicotine-free policies varies, and staff commitment to the rules is inconsistent. The aim was to develop and implement a long-term, structurally integrated model that strengthens staff competence, clarifies procedures, and supports students in making nicotine-free choices.

**METHODS**

The model was developed using service design, social marketing, and the Behaviour Change Wheel. A baseline survey (interviews, observations, document reviews) was conducted with 75 participants. Through workshops and co-creation sessions, staff, students, and stakeholders jointly shaped the model, which was piloted in one vocational college before national roll-out. During implementation, colleges follow a three-step process: start-up assessment, implementation of selected measures, and evaluation.

**RESULTS**

The pilot strengthened guidelines and improved staff capability to address nicotine use. Over 90% of staff recognised their role in promoting nicotine-free behaviour, and 80% of students felt encouraged by staff to make nicotine-free choices. A cultural shift toward consistent, health-promoting practices emerged. From 2021–2025, 11 colleges adopted the model. Policies were updated, staff received training, and student-driven activities were carried out. Embedding the model typically required 1–2 years, resulting in clearer practices, improved staff capabilities, and broader support for wellbeing promotion.

**CONCLUSIONS**

The model supports whole-institution cultural change. It strengthens structures, unifies practices, and empowers staff and students to promote nicotine-free behaviour across Finnish vocational colleges. School-based smoking and vaping prevention; One Health Education; community engagement

**Tob. Prev. Cessation 2026;12(Supplement 1):A168**

## **A youth-led movement to achieve the first tobacco- and nicotine-free generation** **SP12**

### **Project Zero**

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#### **BACKGROUND-AIM**

Project Zero is the first youth-led movement in Spain aiming to achieve a tobacco- and nicotine-free generation by 2030—meaning no person under 18 will have tried tobacco, nicotine, or related products such as vapes. Launched in 2023 following the ECTOH conference in Madrid, and promoted by the Spanish Association Against Cancer (AECC) in collaboration with ten national youth organizations, the initiative empowers young people aged 15–21 to drive evidence-based change in tobacco prevention. Its goal is to translate youth engagement into policy influence, cross-sector collaboration, and measurable social impact aligned with the WHO Framework Convention on Tobacco Control (FCTC).

#### **METHODS**

In 2024, an open national call attracted 991 applicants aged 15–21, from which 60 were selected and trained in innovation and entrepreneurship to develop their own proposals. In May 2024, participants met in person at a kick-off event to get to know each other and define the next steps of the movement, marking the beginning of months of intensive collaborative work. In November 2024, five pilot projects were selected at a national showcase attended by Spain's Minister of Health, each tackling tobacco prevention from a distinct angle: BeeZac (education): school-based intervention designed to build emotional skills and critical thinking in young students, with pre-post assessments showing significant improvements in empathy and emotional management. RespirARTE (arts and culture): creative initiative that uses art and culture as tools to denormalize tobacco and vaping among youth, generating high visibility and shifting the social narrative around smoking. BeHealth (leisure): research-driven project that maps vaping-associated behavioural patterns in leisure contexts to design targeted, evidence-based future interventions. Salud en Movimiento (sport): sport-based strategy that connects physical activity with tobacco-free values, achieving strong digital engagement and community reach ZeTa-ZePo — Zero Tabaco, Zero Pollution (environment): street-level awareness initiative that brings tobacco's environmental impact — cigarette butts, vape batteries, and chemical waste — directly to public spaces such as parks, beaches, and universities. Through eye-catching and engaging activations, ZeTa-ZePo reframes the conversation around tobacco as approachable and even fun, generating primary environmental data while challenging the idea that talking about tobacco has to feel confrontational. In parallel, around 30 youth ambassadors engaged in advocacy activities at regional, national and international levels.

#### **RESULTS**

The five pilots demonstrated feasibility and multi-sectoral impact,

with pre-post assessments showing measurable outcomes across all areas. The initiative mobilized nearly 1,000 young people and achieved wide outreach through digital channels. Beyond the pilots, the team has sustained advocacy efforts opening dialogue with regional administrations across Cáceres, Sevilla, Baleares, Barcelona, Madrid, and Asturias, and held meetings with Spain's Secretary of State for Health and the President of the European Parliament — all converging on the urgency of youth-led action in tobacco control.

#### **CONCLUSIONS**

Project Zero demonstrates that structured youth engagement can generate measurable impact in tobacco control through the combination of evidence-based interventions, advocacy, and strategic communication. The initiative has contributed to increasing social awareness, strengthening cross-sector collaboration, and positioning young people as legitimate stakeholders in policy processes at regional, national, and European levels. Its integrated and participatory approach represents a scalable model to support the implementation of the WHO FCTC and advance towards a tobacco- and nicotine-free generation by 2030. School Project

**Tob. Prev. Cessation 2026;12(Supplement 1):A169**

## **Implementation of national tobacco and nicotine policy in Danish schools** **SP16**

### **Out of sight, out of control**

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#### **BACKGROUND-AIM**

In 2021, Denmark introduced legislation banning tobacco and nicotine use during school hours. The emergence of smoke-free products, such as nicotine pouches and vapes, has challenged implementation, particularly in vocational schools. Evidence on implementation remains limited. This project examines how the policy is implemented and develops context-sensitive, co-created strategies to strengthen implementation and reduce nicotine use among students aged 15–25.

#### **METHODS**

The project applies a mixed-methods, participatory, and realist evaluation design across four phases: (1) a national survey mapping implementation practices, (2) co-creation of tailored strategies with selected schools based on workshops and interviews, (3) realist evaluation using observations, interviews, and pre-post surveys, and (4) a stakeholder and power analysis of the broader implementation environment, including policy actors and industry influence. The analysis is guided by policy implementation theory and the Advocacy Coalition Framework.

#### **RESULTS**

Preliminary findings show substantial variation in implementation across school contexts, shaped by differing implementation conditions. Implementation is particularly challenged by less visible nicotine products and off-site use during school hours. Organisational capacity, perceived legitimacy, and actor interests further influence local practices. The study will generate context-mechanism-outcome explanations and co-created, context-sensitive strategies, alongside insights into how policy environments and stakeholder dynamics, including lobbying,

shape implementation.

#### CONCLUSIONS

The project identifies key conditions for implementation and develops concrete, practice-oriented strategies. Findings offer transferable insights for both implementation and design of future tobacco and nicotine policies, particularly in addressing emerging products that challenge existing regulation. The creation of a smoke-free workplace and the promotion of smoking cessation are one of the five priority areas of the WHP Lombardia program. Within this framework, targeted actions were implemented in x companies in 2025: Development of corporate policies and smoking cessation support programs

**Tob. Prev. Cessation 2026;12(Supplement 1):A170**

### Peer education about side effects of nicotine and other stimulants

#### SP18

#### Czysta głowa (Clear mind)

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#### BACKGROUND-AIM

The Clear Head Project is a peer education initiative aimed at increasing awareness of the health consequences of nicotine, alcohol, and drug use among adolescents. Early initiation of substance use is associated with significant short- and long-term physical and mental health risks. The project aims to educate individuals aged 12–19 and promote evidence-based knowledge through a peer-to-peer approach.

#### METHODS

The project is implemented by medical students from the Public Health Student Research Group at Gdańsk Medical University in collaboration with local schools. It targets students in the final grades of primary school and high school. Educational sessions are conducted using a peer-to-peer methodology, creating a supportive and open environment that encourages discussion. The program includes interactive elements and real-life case studies based on clinical experience to illustrate the consequences of early substance use. Participants are encouraged to engage actively, ask questions, and critically assess information, particularly in relation to misinformation encountered on social media. The initiative is voluntary and supported by the university through educational materials.

#### RESULTS

The project has been successfully implemented in local schools, receiving positive feedback from both students and educators. The peer-based approach has increased engagement and facilitated open discussion. Participants showed improved awareness of substance-related health risks and greater ability to distinguish reliable information from misinformation.

#### CONCLUSIONS

Peer-to-peer education is an effective method for promoting health awareness among adolescents. The Clear Head Project demonstrates strong potential for further development and expansion, contributing to long-term prevention of substance use. This project demonstrates how locally rooted coalitions can adapt, persist and sustain evidence-informed prevention efforts despite funding constraints

**Tob. Prev. Cessation 2026;12(Supplement 1):A171**

### Primary school vaping prevention

#### SP10

#### Ourfutures vaping (Kids): A pre-post pilot trial of Australia's first primary school vaping and smoking prevention program

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#### BACKGROUND-AIM

In Australia 30% of teens aged 14-17 have vaped, and there are emerging reports that vaping is beginning even younger. No evidence based vaping prevention programs exist in Australia for primary-school children (aged 10-12). To address these concerns, we are co-designing and evaluating a primary school adaptation of our secondary schools vaping prevention program that demonstrated a 65% reduction in odds of vaping at 12-months among 14–15-year-olds.

#### METHODS

A pilot pre-post, single group trial across four schools in New South Wales (NSW), Australia will be conducted from April-December 2026 to assess the preliminary effects of a primary school vaping and smoking prevention program. Students (n = 300, aged 10-12 years) will participate in four cartoon lessons, and will complete surveys and qualitative interviews at baseline, post-intervention, and six-month follow-up.

#### RESULTS

To date, 4 focus groups (n = 49 students) have been completed (age range: 9-12). All students were aware of e-cigarettes and had sound knowledge of their harms. Knowledge of tobacco cigarettes was much lower, with many believing e-cigarettes to be more harmful than tobacco. The students shared real-world anecdotes which were used to develop the program. The final intervention, named "OurFutures Vaping Prevention (Kids)" is a physical workbook comprising cartoon strip-style animations and interactive teacher-facilitated activities. The intervention emphasises drug refusal, assertive communication, and practical life skills.

#### CONCLUSIONS

This is Australia's first primary-school based vaping prevention program, based on the highly successful Our Futures Vaping prevention program. The pilot trial will commence in April with full results to follow. School-based tobacco prevention and health promotion among adolescents: Tobacco control and prevention strategies

**Tob. Prev. Cessation 2026;12(Supplement 1):A172**

### Primary tobacco and nicotine addiction prevention in the school environment

#### SP01

#### Agenti 00Cigarette (007 Smoke Zero)

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#### BACKGROUND-AIM

The programme is targeted at primary school students aged 9-10. This age group represents a critical intervention window: it precedes peer smoking exposure yet coincides with identity formation, a phase where pedagogically grounded tools produce long-term effects. The programme builds agency, the capacity to choose consciously and resist pressures, equipping children with psychosocial Life Skills as protective factors against nicotine addiction. This approach is consistent with the Health Promoting Schools vision (WHO/SHE Network) and with the Italian National Prevention Plan.

#### METHODS

The programme uses social theatre structured into five stages: (1) teacher training webinars integrating health themes across subjects; (2) a 90-minute classroom session led by an EduActor through a “hero’s journey”: children assume a “Special Agent” identity and face villains, including “Madam Dependence,” through puppetry and simulations; (3) an “Agent Kit” (card, booklet, diploma) extending learning to families; (4) a “Special Mission” where classes create original outputs (videos, songs, posters, comics) on “How would you make your city smoke-free?”; (5) a public “Agents’ Celebration” on World No Tobacco Day.

#### RESULTS

The programme reaches 11000+ children annually across 200+ schools in Milan and Monza Brianza; 10-year cumulative reach: 100000 children and 6,000 teachers. Card request rate: 78%; 50+ creative outputs per cycle. Teachers report the methodology engages even pupils who typically resist traditional activities: an inclusivity effect extending the programme’s reach. Content is continuously updated to address e-cigarettes, heated tobacco products, and nicotine pouches.

#### CONCLUSIONS

Agenti 00Sigarette demonstrates that constituting children as “special health agents”, rather than passive recipients of information, yields more stable, peer-pressure-resistant choices. Its multi-stakeholder cycle (children, teachers, families) generates internal school capacity ensuring long-term sustainability. The standardised model has been extended to Bergamo, Lodi, and Trento; triennial school protocols further institutionalise its presence in the educational landscape. Tobacco control, school health promotion, NCD prevention

**Tob. Prev. Cessation 2026;12(Supplement 1):A173**

### School Project

#### SP13

### Tobacco children – child labour rebranded

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#### BACKGROUND-AIM

Since 2013, a non smoking generation has reached over 200,000 Swedish students with information about tobacco. Each year, trained young lecturers travel across Sweden to address the tobacco industry’s practices, the harms of nicotine on the developing brain, and its links to child labour, poverty, and environmental damage. The aim is to raise awareness, motivate 13–19-year-olds to abstain, and reach a broader audience through media outreach. Long term, the project promotes children’s right to health and a sustainable future while advocating for stronger legislation.

#### METHODS

The lecture combines personal experiences with scientific facts

and engaging video content. Young lecturers help build trust and make the content relatable, while an interactive format increases engagement and participation. We also provide follow-up materials and a digital version for wider access. Media outreach and social media content further expand our reach and raise awareness of the tobacco industry’s harmful impact and children’s right to health and a sustainable future.

#### RESULTS

More than eight out of ten students report that they have gained increased knowledge about how the tobacco industry affects global sustainable development. Nine out of ten students believe that the lecture provides clear arguments for abstaining from tobacco and nicotine. A media reach of approximately one million Swedes.

#### CONCLUSIONS

The project shows that school-based, youth-led, interactive education effectively increases awareness of the tobacco industry’s impact on health and sustainable development. By combining relatable messengers, evidence-based content and media outreach, it engages young people and motivates most to abstain. The results underscore the need to expand these efforts and support policies that protect children’s health and a sustainable future. Tobacco prevention and cessation

**Tob. Prev. Cessation 2026;12(Supplement 1):A174**

### School-based smoking and vaping prevention; One Health Education; community engagement SP09

#### Respira sapienza... at school

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#### BACKGROUND-AIM

The increasing use of tobacco, e-cigarettes and emerging nicotine products among young people is a major public health concern, often driven by social normalization and misinformation. Respira Sapienza... at school aims to prevent early initiation of smoking and vaping by promoting scientific literacy, environmental awareness and active citizenship through a whole-school approach.

#### METHODS

The program adopts an interdisciplinary One Health-based approach combining scientific education, peer-to-peer learning and experiential activities. Educational modules include lectures, laboratory experiments (toxicology, respiratory physiology, environmental impact), storytelling for younger students and creative contests. The initiative involves students, teachers, families and school staff. Monitoring is conducted through questionnaires, feedback tools and participation indicators, with university students acting as trained peer educators.

#### RESULTS

Preliminary findings indicate participation of more than ten schools, involving approximately 150 primary, 500 lower secondary and 300 upper secondary students, with total outreach expected to exceed 1000 students, including families and teachers. High engagement has been observed through participatory activities, contests and community questionnaires, contributing to increased awareness and critical thinking on smoking, vaping

and environmental health.

#### CONCLUSIONS

Respira Sapienza... at school represents a scalable and sustainable model of school-based tobacco prevention. By integrating scientific evidence, community engagement and peer education, it strengthens health literacy and promotes informed and responsible behaviors, with potential for broader implementation.

Primary school vaping prevention

**Tob. Prev. Cessation 2026;12(Supplement 1):A175**

### School-based smoking prevention

#### SP07

#### Adhaire project – implementation of school tobacco policies through an advocacy coalition

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#### BACKGROUND-AIM

Secondary schools still struggle to enforce their tobacco policy and to keep their learning environment smoke-free. Yet enforcement is the key to improving the effectiveness of those policies. The ADHAirE study aims to reduce smoking at school through improved enforcement of the school's tobacco policy.

#### METHODS

The ADHAirE study was conducted over 2 years in 18 Belgian secondary schools. Schools were randomized into either the experimental or the control group. Schools in the experimental group built up an advocacy coalition involving students, staff, and the principal. Those schools were also linked to the others to share best practices about their school tobacco policy. The objective was to share beliefs about the tobacco policy and about the school's role in tobacco prevention. This randomized controlled trial assesses the effectiveness of the advocacy coalition to improve the enforcement of the school tobacco policy.

#### RESULTS

Baseline results showed high visibility of smoking among students and staff on school premises, indicating low policy enforcement. The effectiveness of the intervention will be assessed at the end of the project, in June 2026.

#### CONCLUSIONS

The ADHAirE study is based on the latest research and recommendations on school tobacco prevention. Following the social norm theory, this study goes further than many others before, which only focused on health education, targeting the individual and not the social environment in which smoking occurs. Through the advocacy coalition, ADHAirE initiated a community-level intervention that will ensure that all stakeholders are involved in decision-sharing about the rules, ensuring their acceptability, adoption, and sustainability. A nationwide model promoting nicotine-free environments in Finnish vocational colleges

**Tob. Prev. Cessation 2026;12(Supplement 1):A176**

### School-based smoking prevention project

#### SP04

#### Smoke island – Smokebuster

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#### BACKGROUND-AIM

Tobacco use often begins in adolescence, requiring innovative prevention strategies that engage young people in their own environments. Smoke Island – Smokebuster is a digital videogame developed by AIRC to prevent smoking and vaping initiation. Hosted on Roblox, it aims to increase awareness of tobacco-related harms, strengthen critical thinking and resistance skills, and promote health literacy through an immersive, youth-centered experience.

#### METHODS

The project is based on Game-Based Learning principles, embedding scientific content directly into gameplay. Players act as researchers exploring an island affected by smoke, completing missions across eight environments representing different health and social consequences of tobacco use. The experience combines narrative immersion, problem-solving and immediate feedback, supported by a digital assistant providing evidence-based information.

#### RESULTS

Platform analytics show broad reach and meaningful engagement: 25.7% of users are aged 13–17 and 21.4% aged 9–12, key prevention targets. Average playtime is 23.3 minutes, indicating sustained exposure to prevention content. Retention (Day 1: 8.34%; Day 7: 3.87%) suggests repeated interaction, supporting message reinforcement. The project also demonstrates international reach and accessibility beyond school settings.

#### CONCLUSIONS

Smoke Island – Smokebuster demonstrates that serious games on mainstream platforms can effectively deliver tobacco prevention at scale. By combining scientific accuracy with high engagement, the project supports early prevention, enhances health literacy and offers a transferable, sustainable model for digital public health interventions targeting youth.

**Tob. Prev. Cessation 2026;12(Supplement 1):A177**

### School-based tobacco prevention and health promotion among adolescents: Tobacco control and prevention strategies

#### SP11

#### Interactive and participatory school-based tobacco prevention development of a scalable model in West Kalimantan, Indonesia

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#### BACKGROUND-AIM

Adolescents remain the potentially at-risk group, with social norms and peer pressure being strong drivers for early initiation of tobacco use in Indonesia. To this end, we developed and evaluated an interactive participatory school-based tobacco prevention model and assessed its potential for scale-up in West Kalimantan.

#### METHODS

A quasi-experimental pre–post study was conducted in four junior secondary schools with 600 students aged 12–18 years. Participatory strategies were used in the intervention to involve peer educators. Outcomes were knowledge, attitudes, behavioral intentions, and refusal self-efficacy measured using validated

questionnaires. The statistical analysis involved paired t-tests (or Wilcoxon signed-rank tests) for pre–post comparisons and McNemar tests for paired categorical variables (eg, intention to smoke). Cohen's d was used to estimate effect sizes with significance set at  $p < 0.05$ .

#### RESULTS

Quality of education mean knowledge scores were significantly improved ( $62.3 \pm 12.5$  vs  $78.6 \pm 10.4$ ;  $p < 0.001$ ,  $d = 1.42$ ). Attitudes toward tobacco were more favorable (from  $3.1 \pm 0.6$  to  $4.0 \pm 0.5$ ;  $p < 0.001$ ). Refusal self-efficacy increased ( $58.7 \pm 13.2$  to  $75.9 \pm 11.6$ ;  $p < 0.001$ ,  $d = 1.30$ ). The percentage of students who planned to smoke decreased from 18.5% to 9.2% ( $p < 0.001$ ). Qualitative results support high acceptability and engagement.

#### CONCLUSIONS

The concept has proven efficacious in diminishing youth tobacco use by addressing fundamental behavioral determinants of smoking and preventing young people from vaping, dynamic and participative school-based discovery methods for addiction prevention are still an underused research area. This model is effective, acceptable and presents an opportunity for a larger scale implementation in Indonesia and similar settings. A youth-led movement to achieve the first tobacco- and nicotine-free generation

**Tob. Prev. Cessation 2026;12(Supplement 1):A178**

### Smoke-free environments

#### SP21

#### Promoting smoke-free homes among households with minors through associations of student's families in local schools: Pilot study in three Spanish regions

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#### BACKGROUND-AIM

To pilot and evaluate the effectiveness of an adapted evidence-based intervention promoting the voluntary adoption of smoke-free homes (SFH) among Spanish households with minors.

#### METHODS

Pre-post intervention pilot study (no control group) with a follow-up at 3- and 6-months post-baseline. The pilots will be conducted in Catalonia, Cantabria, and Valencia with expected sample of 45 participants in each region. The intervention consists of four components: three mailings of printed materials and one coaching call, delivered over six weeks. Main study outcomes include feasibility of intervention delivery and of future trial and short-term intervention effectiveness (proportion of households adopting SFH).

#### RESULTS

The fieldwork in Cantabria and Valencia is undergoing, while results of the pilot study are available. Among the 45 participants recruited, 28 were people who smoke and 17 were people who do not smoke. At baseline, 42 participants reported having some form of smoking restriction in their homes. Almost all participants with follow-up data (40 out of 41) perceived the recruitment strategy appropriate and rated the intervention materials as useful. At

follow-up, 28 participants reported attempts to adopt SFH, and 7 succeeded. Number of days smoking occurred at home and cigarettes smoked per day decreased significantly at follow-up.

#### CONCLUSIONS

Implementing the intervention through Associations of Students' Families is feasible in an urban Spanish school setting. The intervention showed promising short-term effectiveness in promoting the adoption of SFHs. If similar results are observed in other regions, the conduct of a larger trial is warranted. Best practices in health promotion and tobacco control among workers, within regional policies and programs

**Tob. Prev. Cessation 2026;12(Supplement 1):A179**

### Smoking Cessation

#### SP17

#### Prevention of tobacco use among students within the schools that promote health (SPS) Lombardia Model

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#### BACKGROUND-AIM

The school is a priority setting for health promotion because it reaches young people before harmful habits become established. In Lombardy, with ten million inhabitants, all school actions align with the Health-Promoting Schools model, ensuring coherence between policies, including anti-tobacco measures, and educational practices. Within this framework, programs build individual skills and shape supportive environments to prevent risky behaviors, featuring dedicated units on tobacco, for long term student well being and health.

#### METHODS

The main regional programs for the school setting are: LifeSkills Training, aimed at primary and middle students, based on life skills development and the active involvement of teachers, who help create environments less conducive to tobacco use and other substances. Unplugged, designed for first-year upper students, which strengthens personal and social skills useful for preventing substance use, including tobacco. Tra Pari, based on peer education and aimed at upper schools, which enhances students' role in promoting healthy choices among their peers.

#### RESULTS

The collaboration between the Lombardy Region and the Regional School Office has supported the consolidation of the Health-Promoting Schools network, which is estimated to have involved over 1,000,000 students since 2011. Significant governance efforts have enabled the homogeneous dissemination of the programs, consistently reaching more than 1,000 schools.

#### CONCLUSIONS

To promote health and prevent tobacco use, both evidence-based programs and strong multidisciplinary alliances among the various actors involved are essential. Peer education about side effects of nicotine and other stimulants

**Tob. Prev. Cessation 2026;12(Supplement 1):A180**

## Smoking prevention

### SP03

#### Escape smoke

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#### BACKGROUND-AIM

The usage of tobacco and of the new smoking devices keeps increasing in teenagers, who often use more than one smoking device. The aim of the project is to increase awareness about the harmful effects smoking has on health, on society, and on the environment.

#### METHODS

The project is a digital escape room articulated into four rooms targeting different aspects: characteristics of the different smoking devices, harmful effects on health, benefits of cessation, tobacco industry marketing strategies, socio-economic and environmental impacts. Content is delivered in an interactive way through informative panels, videos, quizzes to stimulate curiosity, foster collaboration and problem solving. The activity can be easily done in a school classroom, as it has a duration of 90 minutes and only needs an internet connection. During the experience, students are guided by a trained science communicator; furthermore, teachers can independently replicate the activity and access to in-depth materials.

#### RESULTS

The impact of the activity in terms of knowledge delivered, engagement and general satisfaction is monitored through questionnaires addressed to students and teachers. Since its first release in 2023, the project has reached over 20000 students nationwide in Italy.

#### CONCLUSIONS

The project proves to be a transferable, accessible and economic model for smoking prevention in schools. School-based smoking prevention project

**Tob. Prev. Cessation 2026;12(Supplement 1):A181**

## Smoking prevention

### SP20

#### Smoking prevention implementing experiential learning in schools (SMART: Smoking Modification through Active Resistance Training)

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#### BACKGROUND-AIM

According WHO, Europe is the world's biggest consumer of tobacco up to 2030 and reveals particularly concerning trends of tobacco use among young people. Implementing preventive anti-smoking programs in schools is of primary importance in controlling the smoking epidemic but traditional informative programs already failed.

#### METHODS

Therefore, we developed experiential learning programs that have not yet been used in smoking prevention, incorporating features of effective cognitive interventions and innovative element of interdisciplinary approach. We used classical Greek and Aesopian fables, which refer to human values, have symbolic content and

constitute an educational tool in connecting experiences and relating an unknown situation with an understandable and familiar one. Two groups of students (intervention and control) completed questionnaires about knowledge and attitudes towards tobacco products, before and 3 months after the intervention.

#### RESULTS

The intervention has been done to 2000 Schools since 2014. The intervention group showed a significant change in intention to use tobacco products which is the closest variable for predicting human behavior.

#### CONCLUSIONS

By experiential learning children recognized health as a major good and primary value, formed attitudes that promote life and health, developed skills to resist peer pressure and social stereotypes and consequently curbed smoking behavior.

**Tob. Prev. Cessation 2026;12(Supplement 1):A182**

#### This project demonstrates how locally rooted coalitions can adapt, persist and sustain evidence-informed prevention efforts despite funding constraints

### SP19

#### America's heartland: Persistence, partnership and prevention amidst adversity in Wichita, Kansas (USA)

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#### BACKGROUND-AIM

This project aims to prevent tobacco and nicotine use among children, adolescents, and young people through youth-led advocacy, community engagement, and policy change. Implemented in Sedgwick County, Kansas (USA), the initiative responds to persistent public health challenges, including reduced prevention funding, inequitable tobacco marketing practices, and the continued targeting of youth and marginalized communities by the tobacco industry.

#### METHODS

Primary target group: Youth from middle school age through young adulthood (approximately ages 11–24), with a particular focus on those living in communities with high tobacco retailer density and elevated tobacco-related disparities. The project applies CADCA's Seven Strategies for Community-Level Change, combining evidence-based and innovative approaches to tobacco prevention. These strategies include: Providing information through youth-led education and media Enhancing skills through advocacy, storytelling, and leadership development Modifying environmental conditions by reducing tobacco advertising visibility Influencing policy through data-informed youth advocacy Fostering coalitions and cross-sector partnerships Implementation is supported by state-level public health funding through the Kansas Department of Health and Environment and is situated within an Office of Health Promotion framework emphasizing policy, systems, and environmental (PSE) change.

#### RESULTS

The following activities were conducted: Community members participated in interactive voting activities to express preferences regarding retail environments and to demonstrate support for

Reduced Ads, Better View policies. This approach builds public awareness, dialogue, and local ownership. High school students engaged in PhotoVoice, an evidence-based participatory method enabling youth to document and critically analyze how tobacco advertising affects their neighborhoods. Through photography, videography, and research, youth advocated for healthier community environments, particularly in lower-income areas of Wichita. Youth-led teams produced short advocacy videos shared through social media and public forums, amplifying prevention messages and countering tobacco industry marketing. Youth participants presented their findings and narratives directly to decision-makers, including meetings with the Mayor of Wichita and participation in the Mayor's Youth Council. Partnered with organizations such as the Center for Black Health and Equity address well-documented inequities in tobacco use and cessation outcomes, including the disproportionate targeting of menthol products, limited access to culturally responsive cessation resources, and lower quit success rates among Black communities. A Tobacco Retailer Density subcommittee developed a publicly accessible heat map in collaboration with the City of Wichita to visualize retailer concentration. This tool supports strategic planning and informs future policy initiatives aimed at reducing youth exposure to tobacco marketing and access to tobacco and vaping products. The project operates on a moderate prevention budget, with primary cost categories including: Staff coordination and youth facilitation Training and educational materials Media production and community events Evaluation and data analysis Community engagement activities Funding is provided through state-level tobacco prevention resources and in-kind contributions from coalition partners.

#### CONCLUSIONS

Effective tobacco prevention requires a multi-tiered, collaborative approach that integrates youth engagement, community participation, data-informed advocacy, and policy, systems, and environmental change. Centering youth voice and lived experience strengthens both the relevance and impact of prevention efforts, particularly in communities disproportionately affected by tobacco-related harm. This project demonstrates a replicable and cost-efficient model that can be adapted across diverse settings and contexts. The strategies and partnerships described are genuinely relevant beyond the U.S. context, offering practical insights for international school-based and community-linked tobacco prevention initiatives. Smoking prevention

**Tob. Prev. Cessation 2026;12(Supplement 1):A183**

### **Tobacco / nicotine use prevention, school project**

#### **SP05**

#### **Education about tobacco: Addiction prevention meets global learning – the unfairtobacco education programme**

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#### BACKGROUND-AIM

The Unfairtobacco education programme takes a holistic approach to tobacco/nicotine use. From seedbed to cigarette butt, from mines to electronic waste, the supply chains of tobacco/nicotine products are associated with severe environmental damage and the violation of human rights, particularly the rights of the child.

An important part of these supply chains is located in the Global South where tobacco is grown, harvested, cured (associated with child labour) and minerals are mined (associated with land grabbing and water contamination). Exploring the supply chains offers a fresh approach to these products beyond their impact on human health. The broader picture of these industries exposes how the tobacco/nicotine industry is generating profits at the expense of people and the environment. Based on that knowledge, participants discuss how a sustainable change could be achieved by different stakeholders, including themselves.

#### METHODS

We offer workshops and prevention days, learning stations and an exhibition tailored to adolescents (12+) and young adults in different types and levels of secondary schools. We use activating methods such as disassembling e-cigarettes, quizzes, small group discussions and role plays. We also provide teachers with education material, videos and support to create their own addiction prevention lessons.

#### RESULTS

The participants show in their feedback that they gathered new knowledge about the supply chains of tobacco/nicotine products and see them in a different light than before. Teachers also report back about students' new perspectives on tobacco/nicotine use.

#### CONCLUSIONS

Unfairtobacco's education programme supports addiction prevention by raising awareness about supply chains issues of tobacco/nicotine products and by connecting public health to human rights and environment protection. Youth tobacco and vaping prevention / health promotion

**Tob. Prev. Cessation 2026;12(Supplement 1):A184**

### **Tobacco control, school health promotion, NCD prevention**

#### **SP02**

#### **Nicotine- and tobacco-free schools**

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#### BACKGROUND-AIM

The Nicotine- and Tobacco-Free Schools (NTFS) project is a WHO-led initiative addressing early initiation of tobacco and nicotine use among adolescents in Ukraine. Schools are a critical setting for prevention, particularly for students aged 13–16, when experimentation typically begins. The project aims to sustain schools environments fully protected from tobacco and nicotine exposure by strengthening policies, increasing awareness of health risks (including novel products), countering industry influence, and building prevention capacity. It also demonstrates that evidence-based prevention is feasible even in a war-affected context.

#### METHODS

The project applies a comprehensive whole-school approach combining policy adoption, interactive education, community engagement, and systematic monitoring. Key activities include training school focal points, implementing nicotine-free policies, delivering educational sessions for students, teachers and parents, and conducting school-based surveys aligned with GYTS indicators. Mixed methods (quantitative surveys and qualitative interviews) are used to assess knowledge, attitudes, behaviours,

and policy implementation.

#### RESULTS

The project has reached over 8500 students and 3000 school staff. Findings show increased awareness of health risks, stronger support for school policies, and reduced experimentation with tobacco and nicotine products among participating students. Schools report improved policy enforcement, stronger engagement of staff and parents, and a more supportive health-promoting environment.

#### CONCLUSIONS

The NTFS project demonstrates that a comprehensive, scalable, and evidence-based school prevention model can effectively reduce tobacco use among adolescents, even in crisis settings, and can be replicated in other regions and countries. Smoking prevention

**Tob. Prev. Cessation 2026;12(Supplement 1):A185**

### Tobacco prevention and cessation

#### SP14

### Flexiquit vaping: An act-based digital therapeutic for youth vaping cessation in Cyprus

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#### BACKGROUND-AIM

Electronic cigarette use among adolescents is a growing public health concern, with high prevalence rates observed in Cyprus and across Europe. Despite this, there is a lack of targeted, evidence-based cessation interventions specifically designed for youth. The aim of the present project is to develop and evaluate FlexiQuit Vaping, an ACT-based digital therapeutic delivered via a mobile application, designed to support vaping cessation among adolescents with varying levels of readiness to quit.

#### METHODS

The intervention is delivered through a mobile application incorporating Acceptance and Commitment Therapy (ACT), gamification, and an avatar-guided experience. The program consists of six interactive sessions focusing on values clarification, trigger awareness, cognitive defusion, acceptance, and relapse prevention. The intervention will be co-developed with students and experts to ensure usability and engagement. Its effectiveness will be evaluated through a randomized controlled trial (RCT), comparing the intervention to a waitlist control group. Primary outcomes include readiness to quit, quit attempts, and 30-day abstinence at 6 months post-randomization.

#### RESULTS

The project is currently under development. It is expected that the intervention will demonstrate high usability, engagement, and acceptability among adolescents. Based on previous research on ACT-based digital interventions, we anticipate improvements in psychological flexibility, increased quit attempts, and higher abstinence rates compared to control conditions.

#### CONCLUSIONS

FlexiQuit Vaping represents an innovative, theory-driven digital intervention addressing a critical gap in youth vaping cessation. If proven effective, it has the potential to be scaled within school settings, contributing to public health efforts toward reducing nicotine use and supporting the goal of a smoke-free generation. Youth tobacco prevention

**Tob. Prev. Cessation 2026;12(Supplement 1):A186**

### Youth tobacco and vaping prevention / health promotion

#### SP06

### TabaCoffret – an interactive school-based prevention tool addressing tobacco and vaping

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#### BACKGROUND-AIM

The increasing use of tobacco and emerging nicotine products among adolescents highlights the need for structured, evidence-based prevention in schools. The TabaCoffret aims to strengthen early prevention by improving risk perception, critical thinking and psychosocial skills among students aged 12–16.

#### METHODS

TabaCoffret is a modular educational toolkit designed for school settings. A pilot phase (March–July 2024) was conducted in 10 secondary schools, coordinated by addiction coordinators responsible for implementation. Feedback was collected through questionnaires and exchanges to refine the tool. The optimised version was then rolled out nationally, with one TabaCoffret distributed to each secondary school and implemented through the existing network of addiction coordinators.

#### RESULTS

The pilot phase demonstrated good feasibility and high acceptability among professionals. Addiction coordinators reported that the tool is easy to use and facilitates interactive sessions with students. Feedback highlighted strong student engagement and confirmed the relevance of the content. At national level, initial feedback shows that the TabaCoffret is well received. Its interactive and modular format facilitates spontaneous discussions on tobacco and vaping and lowers the threshold for addressing these topics. Training sessions for addiction coordinators supported uptake and strengthened their capacity to use the tool effectively in practice.

#### CONCLUSIONS

TabaCoffret is a scalable and sustainable prevention model embedded in school systems, supporting long-term tobacco and nicotine prevention among adolescents. School-based smoking prevention

**Tob. Prev. Cessation 2026;12(Supplement 1):A187**

### Youth tobacco prevention

#### SP15

### The „Peer Power Vaping Prevention” initiative

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#### BACKGROUND-AIM

Adolescent uptake of e-cigarettes and tobacco remains a significant public health concern, influenced by peer dynamics and misperceptions of harm. School-based prevention programmes are most effective when they address social influence and build refusal skills. This project aims to prevent the initiation of vaping and smoking among students aged 12–13 by leveraging trained peer educators to increase knowledge of health risks and strengthen

self-efficacy in resisting tobacco-related social pressure.

#### METHODS

A school-based, peer-led intervention is proposed using a structured multi-phase approach. Peer educators (aged 14–16) are recruited based on social credibility and non-smoking status after completing a 2-day training covering health risks, social influences, communication, and facilitation skills. The intervention consists of four 45-minute interactive workshops delivered over four weeks to Grade 7 students, incorporating role-play, discussions, and media literacy. Evaluation follows a pre–post design assessing changes in knowledge and self-efficacy. A teacher-mentor system ensures implementation fidelity.

#### RESULTS

The project is expected to increase knowledge of health risks by 20%, improving self-efficacy to refuse tobacco-related offers by 15%. The peer-led format enhances engagement and acceptance of prevention messages, with high participation and positive feedback reported.

#### CONCLUSIONS

This initiative aims to demonstrate the potential of peer-led school-based interventions to reduce youth vaping and smoking. Its structured design, curriculum integration, and reusable toolkit support scalability and sustainability. Implementation of national tobacco and nicotine policy in Danish schools

**Tob. Prev. Cessation 2026;12(Supplement 1):A188**

## CORPORATE PROJECT

### Best practices in health promotion and tobacco control among workers, within regional policies and programs

#### CP01

#### Development of corporate policies and support pathways for smoking cessation in companies within the WHP Lombardia Network

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#### BACKGROUND-AIM

The “Workplaces that promote health -WHP Lombardy Network” Program, based on the WHO model, aims primarily to change workplaces into environments that support the informed adoption and widespread dissemination of healthy lifestyles, contributing to the chronic diseases prevention. The Program, launched by the Lombardy Region 10 years ago, has been recognized as “Good Practice” at a national and international level.

#### METHODS

Companies that join the WHP Program begin a participatory improvement process, starting from a contextual/needs analysis, that includes the implementation of effective interventions (recommended for this setting) and sustainable measures (e.g. structural and replicable) aimed at supporting healthy choices, selected from a list of “best practices”. The area dedicated to tobacco smoke prevention includes: Definition and implementation of a company policy to become a “smoke-free

workplace” Dissemination of tools and initiatives to support smoking cessation, improving access to public healthcare services Collaboration with the occupational health physician, to deliver motivational counselling

#### RESULTS

In 2025, more than 1100 workplaces -68% of the ones joining the WHP Program (1560)-have implemented a “good practice” in the area dedicated to tobacco use prevention.

#### CONCLUSIONS

The intersectoral alliance between the world of work and the public health system is a key lever for tackling tobacco smoking and, more broadly, for promoting health. By investing in workers’ health, companies become active actors in public health.

**Tob. Prev. Cessation 2026;12(Supplement 1):A189**

