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European Network  
for Smoking and  
Tobacco Prevention

ABSTRACT BOOK



***ENSP***

*European Network  
for Smoking and Tobacco Prevention*



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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 that can promote a tobacco free society. 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, disease development - progression related to tobacco use, tobacco use impact from the cellular to the international level and finally the treatment of tobacco attributable disease through smoking cessation.

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## Demand and side reduction measures

### Tobacco industry response to tobacco tax hikes: The case of Montenegro

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#### Background

Tobacco taxation is an effective policy to decrease tobacco consumption and increase revenue. In July 2017, Montenegro adopted an ambitious plan of tobacco excise increases (from August 2017 and January 2018), but in early 2018 tobacco excise revenue declined, and from September 2018 the tobacco excise rates were reduced.

#### Objectives

To investigate tobacco industry actions aimed at reducing the excise rates in Montenegro.

#### Methods

Data on tobacco excise rates, revenues and prices were taken from official Montenegro sites. Local media reports were also studied.

#### Results

In response to the tax hikes, the industry developed and implemented a plan with the following components: 1) Price over-shifting – after the tax hike, the industry substantially increased the net-of-tax part of the price to increase profits. The increased cigarette retail price encouraged both the reduction in tobacco consumption and cigarette smuggling; 2) Forestalling – the industry increased the cigarette supply in late 2017 to pay lower taxes. It kept the taxed cigarettes in stocks and sold them after the tax increase in 2018. The excise revenue increased in late 2017 but decreased in early 2018. 3) Smuggling over-estimating – claims on changes in cigarette smuggling were not based on any rigorous evidence. The volumes of smuggled cigarettes in early 2018 were substantially overstated by the tobacco industry and its allies, and the decline in cigarette sales at that time was caused not by ‘high smuggling’ but by forestalling. Since September 2018, when the excise rate was decreased, most of the assumed ‘smugglers’ apparently stopped their activities, as legal sales sharply increased.

#### Conclusions

The industry responded to tax hikes in Montenegro with a series of hidden actions that temporarily reduced tobacco excise revenue and persuaded the government to reduce the excise rates. Governments that plan tax hikes should be aware of such industry actions and develop effective countermeasures.

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### The successful path of Slovenia to a smoke-free society (2040) with support from NGOs

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Slovenia is quite successful in terms of the implementation of national policy of tobacco control measures from different trans-national legislation acts. It also has a strong advocacy sector.

Most notably and recently, Slovenia implemented tobacco plain packaging at the manufacturer and retailer level, which was achieved with the strong support of NGOs, especially with the Slovenian ‘NGOs Protect Our Health’ Network. A great deal was also the compilation of a meta-analysis of published studies, ‘The Elasticity of Demand for Tobacco Products’, with the partnership of Slovenian Coalition of Public Health, Environment and Tobacco Control, and the Economic Faculty of Maribor. The ‘Tobacco Control Scale 2019 in Europe’ document shows results and issues in its headline that Slovenia improved its score, the highest in Europe.

The national strategy, ‘SLOVENIA WITHOUT TOBACCO 2020–2030 Proposal’, for reducing tobacco and related products, is still in the intersectional consultation. It already optimistically foresees in the first lines that Slovenia will be a tobacco-free society by 2040, at the least. This means that no more than 5% of the population, older than 15 years, would use tobacco and related products. By 2030, the number of adult smokers will decrease from 24.2% (2014) to 15%, whereas the number of everyday smokers for the same period should drop from 19% (2014) to 12%. The goal of the strategy is also to reduce the number of 11-year-olds, who already at some point in their life smoked (from 2.2% in 2018 to less than 1% in 2030), the number of 13-year-olds should be reduced by more than half (from 10.4% in 2014 to less than 5% in 2030), too. By implementing different measures, the following should be accomplished – that children, adolescents and young adults would not even begin smoking. With special care, the strategy would enormously reduce the number of smoking pregnant women and secondhand smoking as well. In different ways, it would strongly motivate smoking cessation in all generations.

The Coordination Group of Tobacco and Related Products at the Ministry of Health of the Republic of Slovenia was established in 2019. Its main goal is implementing a comprehensive social care for Slovenian inhabitants, protecting them from the harmful effects of tobacco and related products. There are also Slovenian NGOs delegates in this coordination group.

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### Price elasticity of initiation and cessation of tobacco in India

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#### Background

About 267 million adults consume tobacco in some form in India, representing 28.6% of India’s adults. Smoking and smokeless tobacco (SLT) use related mortality is estimated at about 1.3 million every year or approximately 3500 deaths every single day. Although there are studies that estimate the price elasticity of tobacco use in India, currently no study examines how price changes affect the initiation or cessation of smoking or SLT use. Our objective was to estimate the price elasticity of tobacco initiation and cessation among adults, separately for smoking and SLT, by gender and income groups in India, and whether it differs



pre- and post-GST.

### Methods and Data

Using the nationally representative 2017 Global Adult Tobacco Survey (GATS) of about 74000 adults in India, we reconstruct an individuals' history of tobacco use from their answers on the year initiation and cessation, and combine the data with historical annual prices across Indian states from the Indian labor bureau and Euromonitor. To estimate the price elasticity of tobacco use, initiation, and cessation, we use a linear probability model and a duration analysis. We also use propensity score matching (PSM) to adjust for confounding factors.

### Results

The mean age at initiation is about 18.9 and 18.8 years for smoking and SLT use, respectively, among daily users aged 20–34 years. Although the majority of regular tobacco users are interested in quitting, only about 38.5% of smokers and 33.2% of SLT users made an attempt to quit in the previous one-year period. Both initiation and cessation of smoking and SLT use were found to be sensitive to prices with a larger price sensitivity among lower-income groups and younger adults.

### Conclusion

Tax and price increases are effective policy tools to discourage individuals from initiating smoking or using SLT. Tax reforms that reduce the affordability of tobacco products also contribute to reducing initiation and encouraging quitting, with larger effects among the youth and lower-income groups, but these increases need to be uniform across tobacco products to limit consumers ability to substitute with cheaper products.

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## Impact of tobacco taxation policy in Ukraine in 2018–2019 on tobacco sales and revenue

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### Background

Specific excise rates for tobacco products increased in Ukraine by 29.8% in January 2018, by 20% in January 2019, and by 9% in July 2019.

### Objective

The aim of the research is to estimate the impact of the excise increases on tobacco sales, tobacco industry profits and governmental revenue.

### Methods

Data published by Ukrainian official bodies and tobacco industry official reports were analyzed.

### Results

Reported cigarette sales decreased from 67.6 billion sticks in 2017 to 55.8 billion in 2018 (or by 18%) and 44.8 billion cigarettes in 2019 (or by 20%). Average cigarette retail price increased by 60% for two years. The cigarette pack net-of-tax price increased by 50%, while the inflation rate for two years was just 14%. Domestic cigarette production turnover (net-of-tax) was rather stable: 14.7, 15.9 and 15.3 billion UAH in 2017, 2018 and 2019, respectively. So, the average producer price (calculated as production value/number of sold cigarettes) increased by 59% in two years. The PMI reported that tobacco market (cigarettes + HTP) in Ukraine

declined by 8% in 2018 and by 12% in 2019, but PMI revenue increased both years. Governmental tobacco excise revenue increased from 39.9 billion UAH in 2017 to 43.6 billion UAH in 2018, and 44.1 billion UAH in 2019.

### Conclusions

In 2018–2019 the tobacco excise rates increased in Ukraine by 69%. Cigarette sales decreased by 33%, while the governmental revenue increased only by 10%. Small revenue growth was caused by the HTP sales growth (partly caused by low excise rate for HTP) and the tobacco industry pricing policy. When the excise tax increases consistently, tobacco industry uses price over shifting in order to maximize short-run profits. However, the industry actually engineered a greater decrease in cigarette consumption than the excise increase alone.

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## Prices and price differentials in tobacco products across 79 countries

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Increasing tobacco prices is the most effective tobacco control intervention, but its effect may be attenuated by a presence of price differentials within and between countries. We compared price differences between median and cheapest cigarette prices across 79 countries worldwide for 2016, as well as differences in median prices of a variety of tobacco products, such as smokeless tobacco, cigars and roll-your-own tobacco. Price differentials for cigarettes were determined as the percentage of minimum over median price. Data were obtained from Euromonitor International, standardised to 20-cigarette packs or equivalent – for other tobacco products – based on nicotine content. Median pack-prices ranged between US\$0.20 and US\$16.20, and price differentials between 9.1% and 100%. Differences in median prices of various tobacco products varied widely across countries. Our findings highlight the large variation in price differentials between countries worldwide. Stricter tobacco taxation regulations should incorporate strategies to address price differentials, rather than solely rely on price increases in order to maximise the effect of taxation on tobacco use.

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## Chain reaction: The link between tobacco tax policies and illicit trade

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### Background

Studies have shown the inextricable connection between the increase in tobacco taxation and the reduction of illicit trade in tobacco products. The tobacco industry, however, continues its crusade of denying the relationship between the two, purporting that taxation opens up any market and border to illicit trade. That notwithstanding, taxation is deemed to be the most critical strategy

to tackle the problem of illicit trade in tobacco products. It is, therefore, essential for governments to implement appropriately designed policies or enact legislation imposing tobacco fiscal policies in order to strategically take advantage of the benefits to be derived.

#### Method

Country specific research and experience, augmented by global evidence, were analysed to uncover the importance of a strong legal framework, driven and supported by political will, in tackling illicit trade in tobacco products.

#### Results

Properly imposed and systematic tax increases with effective enforcement will substantially reduce tobacco consumption overtime. Jamaica's experience has seen an increase in a specific special consumption tax rate for cigarettes between 2005 and 2017 (i.e. from \$1920 per 1000 sticks in 2015 to \$17000 per 1000 sticks in 2017), which has resulted in a consequent decline in illicit trade, despite arguments to the contrary by the tobacco industry.

#### Conclusion

The link between tobacco taxation and a decline in illicit trade is undeniable. While political will is the engine needed to drive the implementation of fiscal policies, enforcement and collaboration across various sectors of government and civil society are required to effectively tackle illicit trade and accelerate its decline.

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### The fiscal impact of the excise taxation and pricing policy of the cigarette industry in the European Union after the adoption of Directive 2011/64

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#### Background

Since 2011, when the EU Directive 2011/64 on tobacco excise duty was adopted, cigarette consumption declined in the 27 EU countries combined, but the tobacco excise revenue did not increase.

#### Objectives

To estimate the impact of excise taxation and the industry pricing policy on cigarette retail price, governmental revenue and industry profit margins.

#### Methods

European Commission released data on cigarettes for consumption, excise revenue and the weighted average price (WAP), for each country, were used to calculate cigarette market value (as sales × WAP) in 2011 and 2018 for the 27 EU countries, individually and combined. The EU average values were calculated for excise rate and WAP to estimate the industry part of the cigarette price calculated as 'retail price – excise – VAT'.

#### Results

EU-27 cigarette market value decreased from €114.9 billion in 2011 to €113.8 billion in 2018, or by 1%, while the sales decreased from 583 billion to 460 billion cigarettes, or by 21%. Per 1000 cigarettes, the WAP increased from €197 to €248 or by 26%; average excise rate from €132 to €162 or by 23%; the industry price from €32 to €44, or by 38%. The governmental cigarette

excise revenue declined from €77 billion in 2011 to €74.5 billion in 2018 or by 3%, while the cigarette industry net-of-tax sales increased from €18.7 billion to €20.3 billion or by 9%.

#### Conclusions

The cigarette industry increased its part of the retail price in order to maximize short-run profits. Such price increase engineered a greater decrease in cigarette consumption in the EU than the excise tax alone, but the governmental excise revenue declined. The industry increased its profits despite substantial sales decline. Tobacco taxation policy in the EU should be more aggressive to ensure both tobacco consumption decline and revenue growth, regardless of the industry policy.

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### Political economy of tobacco taxation in Pakistan: A missing link in understanding FCTC implementation

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#### Background

Tobacco kills over seven million people annually. Despite the availability of effective evidence-based tobacco control strategies, their implementation remains a challenge in most low- and middle-income countries like Pakistan. Use of traditional technical tools from public health and economics have failed to address the issue. The literature highlights one reason tobacco is so difficult to control is that its political economy has yet to be adequately understood and addressed.

#### Objective

The aim was to identify tobacco taxation policy actors in Pakistan and to collect their views on the current taxation regimen and on challenges in the modification of the policy to achieve both fiscal and health objectives in Pakistan.

#### Methods

A qualitative study based on 25 face-to-face interviews with tobacco taxation policy actors was carried out in Pakistan. Framework analysis approach was used to answer the research question.

#### Results

Tobacco taxation policy is highly influenced by politics in Pakistan with complex competing and vested interests. A modification of the system, to achieve health objectives, would mainly involve decreasing the economic dependence on tobacco-related revenues, strong tax enforcement, correcting the knowledge asymmetries and dealing with tobacco industry interference.

#### Conclusion

Tobacco taxation is a political matter in Pakistan, which has a tobacco-dependent economy. Considering the current political economy scenario a step-wise approach to the implementation of Article 6 of the FCTC is warranted along with a strong political will. There is a need to understand and address the national policy environment while implementing Article 6 of the WHO FCTC.

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## Smoke-Free Future in Denmark

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### Background

The smoking prevalence in Denmark is much higher than in the other Nordic countries. Denmark became 23rd out of 35 European countries in the 2016 Tobacco Control Scale. On this basis the foundation TrygFonden and the Danish Cancer Society initiated the endgame partnership Smoke-Free Future in 2017.

### Objectives

The aim was to turn around the alarming development in Denmark, as youth smoking was rising and tobacco control had come to a halt for the past decade. The goal was 5 per cent adult smokers and no children smoking in 2030.

### Methods

We visited many countries and became inspired by, for example, Tobacco Free Ireland, Rökfritt Sverige 2025, and Tobacco-Free Finland 2030. Based on their experiences, we built a broad partnership with other organisations to fight smoking, together with ENSP and WHO we made a Capacity Assessment on the Implementation of Effective Tobacco Control Policies in Denmark, which gave five key recommendations. The main communication theme of the partnership was the protection of children, including much higher prices, plain packaging, point-of-sale add ban and smoke-free school time.

### Results

By the end of 2019, we had more than 200 partners. About 70 per cent of the populations support all key recommendations. Not least, 50% tobacco price increases have been decided, and there is political agreement on an action plan, including our key recommendations to get a smoke-free generation in 2030.

### Conclusion

The FCTC-based approach and the communication strategy with a focus on children and the broad partnership have been effective in creating support and political will to act on tobacco control.

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## Increase on tobacco taxation: How much do the students from Sapienza University of Rome, Italy agree?

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### Background

According to WHO, an increase in tobacco taxation reduces tobacco consumption and healthcare costs, represents a financing source for governments and a useful strategy to discourage young people from starting smoking.

### Objectives

The aim of this study was to assess agreement with a proposed €1 increase in the price of tobacco, to be spent on prevention, among students of Sapienza University, Rome, Italy. Two samples, five years apart (2014 and 2019), were analyzed.

### Methods

During the World-No-Tobacco-Days (WNTD) 2014 and 2019, students aged 18–31 years, passing by the university informative-formative point 'UNITAB' from 11.00 a.m. to 15.00 p.m., were asked to fill an anonymous questionnaire. Personal data, smoking status and agreement with the proposed €1 increase on tobacco price were collected. Descriptive analysis was performed.

### Results

Two hundred and four questionnaires were collected (107 in 2014, 97 in 2019). Mean age was  $22.5 \pm 2.2$  years and 57.3% were females, with no significant differences between 2014 and 2019. Smokers significantly increased from 55.1% to 70.1% ( $p=0.04$ ) in 2014 and 2019, respectively.

In 2014, those who agreed with the proposed €1 increase on tobacco price were 53.3% of the sample, whereas in 2019 the percentage decreased to 39.2% ( $p=0.05$ ). Analyzing data according to smoking status, it stood out that in 2014 non-smokers mostly agreed with the taxation (79.2%), while in 2019 only 65.5% did so.

### Conclusions

Agreement with the €1 increase seems to have decreased over time, especially among non-smokers. The following factors could have influenced this result: the theme of 2014 WNTD was on raising tobacco tax; a selection bias could have occurred; the introduction of novel tobacco products and the increased tobacco advertisements on social media. These could have decreased the perceived risks associated with tobacco use. Further studies are needed to clarify this result.

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## Scientists, NGOs and media need to cooperate to enforce tobacco control: Lessons learned by failure and success in Austria

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From 2007 to 2016, Austria performed poor in implementation of FCTC, holding the last position in TCS of ECL. With support of ENSP and other NGOs scientists drew attention to SHS in the hospitality industry and achieved a change of legislation. Still, the smoke-free hospitality industry could not enter into force before media revealed corruption. Before and after the start of smoke-free hospitality (1 November 2019), air samples were collected secretly in hospitality venues of all types and analyzed for PM10, PM2.5, PM1, PNC and LDSA (correlated with air nicotine). After the improvement of smoke-free environments, Austrian NGOs turned to persisting problems of youth protection: low price of cigarettes compared to purchasing power, high number of retailers, and lack of age control. In a study in 8 types of Austrian schools for adolescents aged 13–16 years, 95.1% of 1082 pupils returned questionnaires, which had been distributed at the begin of a lesson in class. Of these, 38.4% reported to have tried tobacco, girls (41.6%) more frequently than boys (34.9%), while 3.3% used tobacco daily and 4.6% several times a week, thus 7.9% smoked regularly. From multiple answers the tobacco sources were: friends 73%, tobacco shop 25%, family 20%, vending machines 18%, and internet 5%. Girls buy their tobacco products from vending machines (11.6%)

more frequently than boys (6.0%) ( $p=0.014$ ) and they prefer normal cigarettes ( $p<0.001$ ), while boys used other nicotine products (shisha> e-cigarettes> hand-rolled> cigars>oral tobacco) more frequently than girls. NGOs need to shift focus to youth protection, a levy on tobacco tax dedicated for prevention, a reduction of tobacco retailers, ban of vending machines, ban of smoking, advertising and display at point-of-sale, plain packaging, mystery shopping for age control and specific cessation aids for girls and boys.

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### A 3-year project of the French Alliance against tobacco to denormalize tobacco use

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For a century, the positive development of smoking prevalence was not born of natural evolution but social construction. These have been and are developed by the tobacco industry (TI) using marketing methods that are even more effective since they are hardly noticeable publicly and based on a very powerful instrument of influence: public relationships. This project aims to overturn this by putting these methods at the service of prevention, to deconstruct the images established by the propaganda of TI.

The project objective is thus to implement the appropriate methods of influence and public relations to change the perception of tobacco consumption and its social acceptance by changing the mind of targeted audiences on tobacco products and TI, but also tobacco control.

These objectives will be achieved through four main actions:

1. Give a positive image of tobacco control and strengthen the visibility of its actors.
2. Open new thematics in order to arouse media and political interest and bring new players to fight TI with:
  - ‘Human Rights and Tobacco’ including collaboration with the American NGO ASH (a module Tobacco & Environment has been added)
  - ‘Heart of women and tobacco’.
3. Develop a group of influencers to disseminate these advocacy campaigns.
4. Encourage companies to cut their financial ties with TI, in collaboration with Tobacco-Free-Portfolios (Australia).

The resulting denormalization of tobacco will contribute to decrease smoking prevalence in France. Today, in a market where tobacco advertising is banned and despite strong preventive measures decided in recent years, tobacco addiction persists at a high level, particularly among young people and women, maintained by TI influence and public relations. The purpose of this project is to neutralize TI operations and reverse their effects by tackling the last marketing vectors accessible to this industry.

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### Assessment of the activity of fibrosis formation in multi-drug-resistant pulmonary tuberculosis in smokers

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#### Introduction

It is known that the level of tissue fibrosis factors, such as matrix metalloproteinase-9 (MMP-9) and tissue inhibitor of matrix metalloproteinases-1 (TIMP-1), significantly increases in destructive multi-drug-resistant tuberculosis (MDR-TB). Aldosterone can act as a fibrosis factor since its elevated levels contribute to excessive fibrosis. In addition, many of the patients with MDR-TB are smokers, which is known to have an adverse effect on the course of tuberculosis. The purpose of the study was to investigate the levels of tissue fibrosis factors in patients with destructive MDR-TB.

#### Methods

One hundred and four patients with destructive MDR-TB were included in the study and divided into two groups: Group 1, 36 non-smokers; Group 2, 68 smokers. Levels of aldosterone, MMP-9 and TIMP-1 were evaluated by ELISA method in blood plasma at the treatment onset. Statistical data processing was performed in STATISTICA 8.0.

#### Results

Significant difference between the two groups was found by comparing the aldosterone level: Group 1,  $80.54 \pm 3.97$  pg/mL, and  $100.76 \pm 7.44$  pg/mL in Group 2 ( $p=0.03$ ). The difference between groups by MMP-9 and TIMP-1 levels was insignificant ( $p>0.05$ ). MMP-9 level was  $354.51 \pm 3.72$  ng/mL in Group 1 and  $355.39 \pm 5.81$  ng/mL in Group 2. TIMP-1 level was  $134.27 \pm 1.81$  ng/mL in Group 1 and  $123.70 \pm 4.58$  ng/mL in Group 2. Sputum conversion at the 3rd month of treatment was observed in 96.78% patients in Group 1, which was significantly higher than in Group 2 (83.92%) ( $p<0.05$ ).

#### Conclusions

In the absence of significant differences in the levels of MMP-9 and TIMP-1, the level of aldosterone was significantly higher in smokers. Excessive fibrosis in a number of pathological conditions of the respiratory system is associated with high levels of aldosterone. It was found that a high level of aldosterone in smokers is a marker of later sputum conversion in patients with MDR-TB.

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### Developing an intervention to protecting domestic workers from tobacco smoke

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#### Background

Exposure to secondhand smoking causes serious health risks. Since 2006, Belgium has smoke-free laws in place for workplaces. Private homes are an exception. In Flanders (Belgium) over 100000 people work in private homes as social workers, cleaning ladies etc., and are regularly exposed to tobacco smoke.

#### Objective

The objective was to develop an intervention to protect domestic

workers from exposure to tobacco smoke.

### Method

First, we conducted in-dept interviews with ten employers about the policies that are in place to protect their employees from secondhand smoke. In collaboration with the Fight Against Cancer, the unions, and employer organization, we searched and analyzed company policies and good examples from other EU countries related to tobacco smoke exposure. Second, we developed and tested guidelines and a toolkit with communication and education materials.

### Results

We analyzed 25 company policies and five good practices from other EU countries. There are many good practices/examples. But there is a big difference between corporations. Most companies do not have any policy that protects employees from tobacco smoke exposure. Employers expressed the need for customer awareness, education for employees, and policy guidelines for employers. Together with the partners, we developed and tested guidelines and a toolkit to help employers to raise awareness among costumers, install a smoke-free policy and educate and empower employees.

### Conclusion

A lot of corporations do not have any policy to protect their employees against tobacco smoke. The guidelines and toolkit provide to their needs and encourages them to take action.

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## Burden of disease from exposure to secondhand smoke in children in Europe

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### Background

Second-hand smoke (SHS) exposure at home is a major cause of disease among children. The widely spread of smoking bans in public places in the last decades favored the adoption of voluntary smoking bans in homes.

### Objectives

To quantify the health consequences of such voluntary smoking bans in European Union (EU) countries, we analysed the burden

of diseases from low birth weight, lower respiratory infections, asthma, otitis media and sudden infant death syndrome due to SHS exposure in children and pregnant women in the period 2006-2017.

### Methods

We used the Comparative Risk Assessment method and we estimated the prevalence of household SHS exposure in children and the SHS exposure in pregnant women using a multiple imputation procedure based on the Eurobarometer surveys. Data on mortality and disability adjusted life years (DALYs) were collected using official statistics data and estimates from the Global Burden of Disease study.

### Results

In EU countries SHS exposure in children and in pregnant women stalled in the period 2006-2017, as well as their attributable burden. In 2017 the proportion of deaths and DALYs (on total) attributable to SHS exposure in EU countries was respectively 1.4% and 0.7%, mainly from low birth weight. The highest proportions were estimated in Eastern EU countries, and the lowest in Northern.

### Conclusions

This study suggests that comprehensive smoking ban legislations are able to reduce SHS exposure in homes and its burden in children a few years after the adoption of the legislation. However, in 2017 the burden from SHS exposure in children is still not negligible.

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## Burden of disease from breast cancer attributable to smoking and secondhand smoke exposure in Europe

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### Background

Tobacco smoke is the most important human carcinogen and breast cancer is the leading cause of cancer among women, accounting in 2018 for nearly one in four of all female new cancer diagnoses worldwide, and around 15% of female cancer deaths. Numerous studies have been conducted to evaluate the association between

smoking and breast cancer risk, with conflicting results. The last meta-analysis of all published studies reported significant 10% and 7% increases in breast cancer risk women exposed respectively to smoking and to second-hand smoke (SHS).

### Objectives

Aim of this work is to estimate the number of deaths and disability-adjusted life years (DALYs) from breast cancer attributable to smoking and SHS exposure in the European Union countries in 2017.

### Methods

The impact of smoking and SHS exposure on breast cancer was obtained through the comparative risk assessment method. Population attributable fractions (PAFs) were calculated by applying the relative risks of death from breast cancer to the Smoking Impact Ratio, for the burden from smoking, and to the prevalence of SHS exposure at home estimated from the Eurobarometer survey (allowing a 10-year lag-time) in the SHS burden estimation. The PAFs were then applied to the 2017 number of deaths DALYs estimated from the Global Burden of Disease study.

### Results

In 2017, 60,733 DALYs and 2,719 deaths from breast cancer could have been avoided by removing exposure to smoking in Europe Union. The proportion of DALYs from breast cancer lost respectively from smoking and SHS exposure was 2.2% and 0.4%, although geographically distributed with significant heterogeneity.

### Conclusions

These results are the first estimates of breast cancer burden in women attributable to smoking and SHS exposure for the Europe Union countries. It is important to widespread the link between smoking, SHS exposure and breast cancer, a relationship that is still little known.

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## Health hazards of tobacco curing: A study in Bangladesh

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### Background

Tobacco is being cultivated in selective regions of Bangladesh. Some tobacco companies patronize tobacco cultivation.

### Methods

The study attempted to identify the health hazard of tobacco curing. The study surveyed 285 tobacco households to explore particulars of tobacco curing and measure health cost. For comparing annual health cost, in addition, 174 general crop-producing households were also surveyed. All households were selected randomly from Kushtia, Chuadanga, and Jhenaidah districts of Bangladesh.

### Results

Result showed that all farmers in the region cure tobacco through fire heating in an airtight curing house. In about 98 per cent of cases, the farmer's curing house is located at the homestead within 32 meters mean distance from their home. One shift of

curing requires 72 hours of non-stop firing. Family members cannot sleep well because of the continuous adding of firewood, checking the temperature and the leaves' condition through the night. When green leaves are burnt, strong odour and gases are emitted. Ninety-six per cent of farmers store cured tobacco in their house, including the sleeping room. On average, curing lasts for 54 days, for an average cured tobacco weight of 992 kg. Field experience shows that almost no family members adopt any safety measure. Through inhaling gases and restless work for long days, tobacco family members get sick during and after the curing period. Dizziness, vomiting, insomnia, green tobacco sickness (GTS) etc. were commonly reported by tobacco households. Dried leaves become so thin that sometimes get mixed with food. The yearly average cost of illness and medication for tobacco-growing households was higher than that of general households; by combining both, average annual health costs were 14024 BDT and 9483 BDT (84 BDT about 1 US\$), respectively. So, tobacco growing households incurred 4540 BDT more cost than general crop producers, and it is statistically significant.

### Conclusions

Appropriate safety measures need to be ensured by tobacco companies and/or government for tobacco growing households.

### Funding

The research was funded by Institute for Global Tobacco Control (IGTC) based at the Johns Hopkins Bloomberg School of Public Health, Baltimore, USA, and managed by Bangladesh Center for Communication Programs (BCCP), Dhaka, Bangladesh.

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## Smokers' and non-smokers' receptivity to smoke-free air policies and related messaging in support and opposition in Armenia and Georgia

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### Background

Public smoke-free policies are effective in reducing smoking prevalence and secondhand smoke exposure (SHSe). Armenia and Georgia have high smoking rates in men (>50%), high SHSe rates (>40%),

and recently proposed or implemented smoke-free legislation.

### Objectives

The study aimed to investigate opportunities to promote smoke-free policies in Georgia and Armenia.

### Methods

In 2018, we surveyed residents (aged 18–64 years) of 28 cities in Armenia (n=705) and Georgia (n=751) and examined receptivity to smoke-free policies in various settings (1=strongly oppose; 5=strongly support) and persuasiveness of messaging in support or opposition (1=not at all; 4=extremely) among smokers and non-smokers.

### Results

Participants had a mean age of 43.4 years, 60.5% were female, 67.9% of low education, 49.0% were employed, 54.9% with income >500 GEL/100000 AD, 72.9% were married and 51.0% were parents. Across settings, non-smokers indicated greater support for smoke-free policies ( $p<0.05$ ). The greatest support (mean >4/5) was for policies in healthcare; religious, government and workplace settings; public transport; schools; and vehicles with children present. The least support (mean <3/5) was for policies in outdoor areas of bars or restaurants. Support was mixed (mean 3/5 and 4/5), and showed pronounced differences in non-smokers versus smokers (mean >1), regarding indoor and outdoor areas of bars or restaurants, multi-unit housing, and outdoor public areas. Messaging in support of policies was perceived as more persuasive among non-smokers ( $p<0.05$ ). The most compelling strategy among smokers and non-smokers focused on the right to breathe clean air (M±SD: 3.4±0.9 vs 3.7±0.6); the least compelling highlighted no impact on businesses (2.5±1.1 vs 2.9±1.0). The most compelling messaging in opposition focused on using smoking/non-smoking sections (2.8±1.1 vs 2.8±1.2); the least compelling was a negative impact on businesses (2.2±1.1 vs 2.1±1.1).

### Conclusions

Specific settings may present challenges for advancing smoke-free policies. Messaging focusing on individual rights to clean air and health may garner support for such policies.

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## Protection of children and adolescents from the consequences of using tobacco products in Polish tobacco control law: Current status and perspectives

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### Introduction

The use of tobacco products in Poland is very widespread. It is estimated that about one-third of adolescents admit to smoking cigarettes or using other tobacco products. Polish tobacco control law is an essential tool for tobacco prevention among children and adolescents; however, the content of the regulations raises many doubts as to their effectiveness.

### Objective

The study aimed to determine whether Polish tobacco control

law, following international law and European Union law, protects children and young people from using tobacco products, and in what areas statutory changes are required.

### Methods

The tobacco control law in Poland was analyzed in terms of its compliance with international law, including the WHO Framework Convention on Tobacco Control and European Union law, in particular, Directive 2014/40/EU of the European Parliament and the Council.

### Results

Many regulations included in the Polish tobacco control law are not in accordance with the WHO Framework Convention on Tobacco Control (FCTC) and European Union law. Also, the Polish tobacco control law raises many interpretation doubts, which prevents its practical application. For example, further statutory changes extending the areas of smoking bans, beyond public areas, are necessary to fully implement children's right to health protection. Changes are also needed to the legal definitions of advertising and promotion of nicotine-containing products. In the Polish law the concept of 'sponsorship' is much narrower than in the FCTC. The regulations regarding the sale of tobacco products to persons aged <18 years also do not fulfil the obligations under the FCTC.

### Conclusions

Tobacco Control Law in Poland is not an effective tool for protecting the health of children and young people. Statutory changes are necessary so that Polish legal regulations regarding the protection of children's and youth's health from the consequences of using tobacco products would be in accordance with international law and EU law.

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## Secondhand smoke in Scotland's prisons declined by 91% after they went smoke-free: Results from the TIPs study

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Scotland introduced a comprehensive smoke-free public places law in 2006. This law was widely regarded as a success and a model for legislation in other countries, including England and Wales. However, the 2006 law included several exceptions, including allowing prisoners to continue smoking in cells. Prison staff were therefore one of the few remaining groups exposed to secondhand smoke (SHS) indoors at work. Concern for the wellbeing of staff led the Scottish Government to introduce a smoke-free prisons policy in November 2018. The introduction of smoke-free prison policies has been marked by scepticism, with some commentators suggesting that smoking in prisons could not be restricted without major disruption.

We conducted a programme of static and task-based particulate

air quality monitoring using the low-cost Dylos DC1700 sensor in 2016 (pre-ban), 2018 (as the ban was coming into force) and 2019 (six months post-ban). Static monitoring took place over six days in residential halls in all 15 Scottish prisons at each time point. Additionally, task-based monitoring of activities that may have resulted in exposure to SHS (such as cell checks) took place in 2016 and 2019.

In static monitoring, pre-ban particulate concentrations were high (median 31.7 $\mu\text{g}/\text{m}^3$ ), suggesting high levels of smoking in the prisons. The 2018 data showed that this had declined by the introduction of the ban, with 2019 post-ban data showing a median concentration of 3.0 $\mu\text{g}/\text{m}^3$  (lower than outdoor air). Significant declines were also seen in task-based monitoring across a range of activities.

The introduction of a smoke-free policy across Scotland's prison estate was successful, according to objective air quality monitoring data. This, combined with the lack of major disruption associated with the introduction of the policy, will have implications for other prison systems wishing to protect staff and prisoners from the harmful effects of SHS.

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## Smoke-free law compliance in eating places of Almaty, Kazakhstan

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### Introduction

In Kazakhstan Article 8 WHO FCTC requirements were adopted only partially in 2009, as smoking is still allowed in designated smoking rooms (DSRs) inside 'public eating places' (PEP), while other public places must be fully smoke-free. The study aims to evaluate compliance to smoke-free law by comparing observational data from 2013 and 2017 in public eating places of Almaty, Kazakhstan.

### Methods

Public places of Almaty were visited, and data were collected through direct observations and focused interviews, using the guide 'Assessing compliance with smoke-free law'<sup>1</sup>. Non-compliance was defined by a positive response on smoking inside premises, the presence of cigarette butts, ashtrays, and smoking hall.

### Results

A total of 1095 places were visited: 651 public places in 2013, and 444 in 2017. According to the observations in 2013, 66% of public places allowed smoking inside while in 2017 this significantly increased up to 88.4%. Also in 2017, every second place offered shisha (53%), while in 2013, the rate was 16.4%. DSRs have implemented only in 2% PEPs in 2013 while in 2017 it was already 11%. Smoking halls, which were absent in 2013, increased by 10.3% in 2017, unlike ashtray data which stayed stable (26% in 2013 and 20% in 2017).

### Conclusion

Violations of the smoking ban increased significantly in 2017 from 2013 in public eating places, and DSRs are established in a low number of PEPs. There is a need to harmonize local law to WHO FCTC provisions, strengthen the enforcement tool such as increasing penalties in hospitality establishments.

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## Measuring-for-change: Using air quality feedback to promote smoke-free homes

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### Background

Exposure to secondhand smoke (SHS) is a cause of severe childhood illness. Accordingly, governments and health authorities recommend never smoking in homes where children live, and a range of behaviour change interventions to promote smoke-free homes have been developed. Air quality feedback, where information about SHS-related air pollution in the home is provided to smoking parents, has been used in behaviour change interventions with some success.

### Objectives

To develop a remote internet-based air quality feedback intervention to promote smoke-free homes, and to test that intervention in five centres across four European countries.

### Methods

Inclusion criteria were homes in which someone smokes indoors and where a child aged <16 years spends at least one night per week. Internet-connected Dylos DC1700 monitors were developed and installed in homes for 30 days. The first (baseline) and last (follow-up) seven days served as comparators, while SMS, email and telephone feedback was provided between, from days 8–23. The primary outcome measure was the change in mean fine particulate matter (PM<sub>2.5</sub>) between baseline and follow-up, while secondary outcome measures included the number of homes in which PM<sub>2.5</sub> concentrations declined and the change in time spent over the World Health Organisation's guideline limit for PM<sub>2.5</sub> concentrations indoors.

### Results

The median change in PM<sub>2.5</sub> concentration between baseline and follow-up was -4.1 $\mu\text{g}/\text{m}^3$  (19%,  $p=0.008$ ). About two-thirds (57/86; 66%) of participating homes experienced declines in measured SHS throughout the study. Time spent over the WHO



guideline limit fell by a median of 3.3%.

### Conclusions

The measuring-for-change intervention led to reduced levels of SHS in most homes where it was tested, but few homes became wholly smoke-free throughout the study period.

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## Attitudes towards cessation and smoking ban law enforcement in Greece

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### Background

The smoking ban law has been successfully implemented in Greece since 2019, however data on smoking status post implementation and views on the measures for the smoking ban law enforcement do not yet exist.

### Objective

Our study aimed to estimate smoking status in Greece and assess attitudes towards cessation and views on smoking ban law implementation.

### Methods

The sample was representative of the adult Greek population according to sex and age based on national census data. Participants reported their smoking status, attitudes towards cessation and views on smoking ban law enforcement. Data collection took place on February 2020 using computer assisted telephone interviewing by Kapa Research. Differences between groups were assessed with chi-squared tests. Analysis was performed in STATA 13.

### Results

A total of 1976 adults participated in the study. Smoking prevalence was 28%. Highly statistically significant differences between sexes were observed regarding history of smoking cessation, more frequent in men (67%) than in women (59%) ( $p=0.03$ ). Additionally, intention to quit smoking in the future was lower in women compared to men (48% vs 56%, respectively;  $p=0.08$ ), while men had higher ex-smoking prevalence compared to women (36% vs 29%, respectively). Regarding the smoking ban law implementation, 75% of the population consider the measures for the smoking ban implementation positive; the percentage is highly statistically significantly different between smokers and non-smokers (53% vs 86%, respectively) ( $p<0.001$ ).

### Conclusions

Significant differences were observed between sexes regarding smoking status and attitudes towards cessation. About three-quarters of the adult Greek population consider positive the measures of the smoking ban enforcement.

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## Do smokers want to protect non-smokers from the harms of secondhand smoke in cars? Findings from the EUREST-PLUS ITC Europe Surveys

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### Background

There is currently no comprehensive legislation protecting non-smokers and children from secondhand smoke (SHS) exposure in private cars at the European Union (EU) level.

### Objective

This study aims to assess smokers' support for smoke-free cars legislation in six EU countries.

### Methods

Data come from the EUREST-PLUS ITC Europe Surveys: Wave 1 (2016;  $n=6011$ ) and Wave 2 (2018;  $n=6027$ ) conducted in Germany, Greece, Hungary, Poland, Romania, and Spain. Support for smoke-free cars carrying pre-school children and non-smokers as well as the voluntary implementation of smoke-free car rules were assessed among adult smokers. Generalised estimating equations models were used to assess changes in support between waves.

### Results

In 2018, 96.3% (95% CI: 95.4–97.0%) of the overall sample supported smoke-free legislation for cars carrying pre-school children, representing an increase of 2.4 percentage points in comparison to 2016. Smoke-free legislation for cars transporting non-smokers was supported by 85.2% (95% CI: 83.1–87.1%) of smokers in 2016 and 90.2% (95% CI: 88.6–91.7%) in 2018. Among smokers who owned cars, there was a significant 7.2 percentage-point increase in voluntary implementation of smoke-free car rules carrying children from 2016 (60.7%; 95% CI: 57.2–64.0%) to 2018 (67.9%; 95% CI: 65.1–70.5%). All sociodemographic groups of smokers reported support higher than 80% in 2018.

### Conclusion

The vast majority of smokers in all six EU countries support smoke-free legislation for cars carrying pre-school children and non-smokers. This almost universal support across countries and sociodemographic groups is a clear indicator of a window of opportunity for the introduction of comprehensive legislation

to protect non-smokers and children from SHS exposure in cars.

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## New findings from the TackSHS Survey: Attitudes and perceptions

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### Background

All European countries have adopted, to a different extent, smoke-free legislations to reduce cigarette consumption and to limit the exposure to secondhand smoke (SHS) in public places.

### Objectives

To investigate attitudes and perceptions of smoke-free regulations among European adults.

### Methods

Within the TackSHS Project, in 2017–2018, we conducted a face-to-face survey in 12 European countries: Bulgaria, England, France, Germany, Greece, Ireland, Italy, Latvia, Poland, Portugal, Romania and Spain. In each country, we enrolled approximately 1000 participants, representative of the general country-specific population aged  $\geq 15$  years. All subjects were asked whether they were in favour or against a total smoking ban in 11 different indoor places (e.g. bars and restaurants, healthcare centres), five indoor modes of transport (including private vehicles in the presence of children), and nine outdoor settings (e.g. parks, stadiums, beaches, outdoor areas of schools and hospitals). Moreover, the perception of the usefulness of some strategies that governments could adopt to control and limit tobacco use, including raising prices or making smoking or cigarette sales illegal, and the perception of harmfulness of exposure to SHS was also investigated.

### Results

Among 11902 subjects interviewed, 25.9% were current smokers (31.0% in men and 21.2% in women, ranging between 18.9% in Italy and 37.0% in Bulgaria). Overall, 30.9% of non-smokers reported exposure to SHS in indoor settings (33.2% among men and 29.0% among women, ranging between 24.2% in Ireland and 67.7% in Greece). We will provide original findings on the attitudes and perceptions of Europeans towards smoke-free regulations and SHS exposure.

### Conclusions

The results of this study will provide an overview of the support of both current and non-smokers towards the strengthening of smoke-free legislation in Europe. These data will have a large impact from a public health perspective, and could be used by national political decision-makers to plan future strategies to extend smoke-free regulations.

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## Attitudes of university students toward exposure to secondhand smoking: The case of Vloora University, Albania

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### Introduction

The health effects of secondhand smoking (SHS) exposure are well identified. Article 8 of the World Health Organization's Framework Convention on Tobacco Control (FCTC) specifies preventive measures against SHS exposure adapted by many countries worldwide, including Albania. Although such policies are only indirectly aiming young adults, they demonstrate the positive effects of smoke-free bans in public places that are associated with overall health protection and reduced progression and experimentation with smoking. The study aims to assess the attitudes of students at the University of Vloora toward exposure to SHS.

### Methods

This is a cross-sectional study conducted at Vloora University in Albania from February to May 2019. Students from all Faculties (Public Health; Human Sciences; Economics and Technical Sciences) and all academic years (Bachelor's and Master's students) were enrolled during classes. A self-administered questionnaire was used for data collection. SPSS-23 was used for the analysis.

### Results

The total sample comprised 987 students (75.0% female). In all, 22.5% of participants stated that they always distance themselves from someone who smokes, and 23.7% reported never staying with the group when someone starts smoking. More than half (56.1%) of the respondents would always ask the driver or other passengers in a car not to smoke while approximately one in five would always choose to stay in a public place where people smoke if there were no public places where smoke-free legislation is respected.

### Conclusions

Despite the enforcement of smoke-free legislation in Albania, the results of our study are indicative of the weak level of implementation and support of students towards smoke-free policies. Better implementation of the current legislation, enforcement of stricter tobacco-free public places and community and/or university awareness campaigns on the harms of SHS exposure are of high significance.

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## Workshop: You are more than your cravings!

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The application of Acceptance and Commitment Therapy (ACT) for the treatment of many problems where craving is a core feature is growing (e.g. substance use, tobacco use, overeating, gambling, compulsive sexual behavior). Individuals presenting with such difficulties often have difficulty managing cravings, although this is an inevitable aspect of experiencing substance use and other addictive and compulsive behaviors. Difficulties involving cravings are associated with substantial distress, functional impairment, and low quality of life. This workshop will present the latest developments in ACT for the treatment of difficulties where craving is an important component. The workshop will also present the latest developments in ACT for dealing and overcoming cravings, and examine the efficacy, the mechanisms, and processes of change of ACT for the treatment of craving-related problems. Concepts will be illustrated using live demonstrations, experiential exercises, metaphors, and worksheets.

This workshop is designed to teach skills needed to explore ACT as an assessment model and intervention method for addressing craving. It will be mostly experiential and will balance an understanding of the model with a personal connection with the issues raised in ACT, and with skills development.

Cravings are commonly reported reasons for why individuals engage in many unhealthy behaviors (e.g. substance use, tobacco use, overeating, gambling, compulsive sexual behavior). This workshop will help participants learn how to deal with cravings and the health-related problems with which they are associated, utilizing an Acceptance and Commitment Therapy approach.

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### Cessation behaviours among smokers of menthol and flavoured cigarettes following the implementation of the EU Tobacco Products Directive: Findings from the EUREST-PLUS ITC Europe Surveys

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#### Background

The European Tobacco Product Directive (TPD) banned the sale of cigarettes with characterizing flavours from May 2017, with an extension for menthol cigarettes until May 2020. This offers a unique opportunity to research the profiles and behaviours of menthol and flavoured cigarette (MFC) users in the European Union.

#### Objectives

To evaluate population-level changes in the cessation behaviours of MFC smokers, and whether they have been modified following the 2016 ban on cigarettes with characterising flavours, and in anticipation of the 2020 ban on menthol cigarettes.

#### Methods

Longitudinal analysis of smoking status and cessation behaviour among adult smokers of menthol and other flavoured cigarettes between Wave 1 (2016, pre-TPD) and Wave 2 (2018) of the EUREST-PLUS ITC Europe Surveys.

#### Results

There were significant but small declines in the weighted prevalence of menthol (by 0.94%;  $p=0.041$ ) and other flavoured cigarettes (by 1.32%;  $p<0.001$ ) use between Wave 1 and Wave 2, which tended to be driven by smokers switching to unflavoured tobacco, rather than quitting smoking. A narrow majority (51.6%) of menthol smokers did not change their preferred product, while 22.8% switched to unflavoured tobacco. Among other flavoured cigarette smokers, 11% did not change their preferred product, while 62.3% switched to unflavoured tobacco. Among smokers of menthol cigarettes, 14% quit smoking between Waves 1 and 2, compared with 9% among other flavoured cigarette smokers, and 12% among unflavoured tobacco smokers, but the differences were non-significant.

#### Conclusions

Continued monitoring is needed to ascertain the long-term impact of TPD, including if the MFC smokers who moved to unflavoured cigarettes will be more likely to quit as a next step. There remains an opportunity for tobacco control prior to the implementation of the 2020 ban on menthol cigarettes. Countries with high menthol use should strengthen stop-smoking campaigns alongside the menthol cigarette ban to aid cessation.

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### Tobacco industry tactics to circumvent and undermine the TPD menthol ban in the UK

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#### Background

The World Health Organisation recommends banning menthol cigarettes because of menthol's role in the initiation and continuance of smoking. Across the world, the tobacco industry

has attempted to block, stall, limit or circumvent legislation aimed at restricting menthol sales. Menthol cigarettes are critical products for the tobacco industry; one in ten cigarettes globally are menthol. The European market alone has been estimated to be worth nearly €10 billion. A ban on menthol cigarettes, agreed in 2014, is coming into force in May 2020 in the EU and UK.

### Objectives

To identify trends in the European menthol cigarette market (flavoured tobacco and capsules); how the tobacco industry reacted to the menthol ban in the UK; loopholes in existing legislation, to enhance tobacco control legislation in future.

### Methods

Secondary analysis of market share data identified trends in the European menthol cigarette market. Documentary evidence (industry documents, websites and retail publications) was collated as part of ongoing monitoring of industry activity and analysed to understand tobacco industry activities.

### Results

Despite the incoming ban, menthol's market share grew in the UK but not in the EU overall (2014 to 2018). The tobacco industry in the UK acted in three ways: retailers were encouraged to sell menthol cigarettes up to the ban despite a long preparation period; new products in the UK were launched that were legal after the ban, including menthol flavoured cigarillos, pack inserts and roll-your-own tobacco filters; and menthol flavoured next-generation products were promoted as alternatives to quitting.

### Conclusions

Tobacco companies have used product innovation as a tactic to circumvent the menthol ban. We recommend future legislation prohibits the continued sale of new forms of menthol tobacco products and accessories. Long preparation periods for menthol bans are not necessarily used to taper sales and thus can be omitted.

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## Trends in tobacco industry marketing tactics at points-of-sale in Eurasia

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While they claim to only market to adult smokers, British American Tobacco, Imperial Brands, Japan Tobacco, and Philip Morris International are employing a consistent set of cigarette, e-cigarette, and heated cigarette promotional tactics to appeal to youth at points-of-sale in Europe and Eurasia. At traditional points-of-sale, promotional posters, tobacco displays at the eye-level of a child, flavored tobacco products, and tobacco products positioned next to candies and sweets were observed between 2018–2020 when CSOs in Armenia, Croatia, Germany, Kazakhstan, Kyrgyzstan, Montenegro, Serbia, Turkey, Ukraine, and Uzbekistan, conducted investigations at points-of-sale. In May 2020, a study into one of the newest points-of-sale – mobile delivery applications – revealed disturbing tobacco promotional tactics as well as evidence of youth access challenges. In this session, we will provide an overview of the trends observed and

case studies from investigations at retailers' points-of-sale in the Balkans, as well as a behind-the-scenes look at a success in Ukraine to limit tobacco product promotions on a multinational mobile delivery application Glovo.

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## Investigating industry tactics for promotion of novel tobacco products in Bulgaria

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Tobacco industry (TI) is aggressively promoting its new heated products as 'smoke-free' and 'less harmful' than traditional ones. While WHO and independent researchers warned against such statements, novel tobacco products are not yet covered adequately by existing smoke-free regulations.

As a party to the WHO FCTC, Bulgaria is required to introduce a comprehensive ban on tobacco advertising, promotion and sponsorship. But political decision-makers are traditionally slow and reluctant to take action and prevent legal loopholes in tobacco control legislation definitions. This allows sufficient loopholes for TI to rebrand and persistently promote its new products.

The proposed paper summarizes the outcomes from the ongoing investigation of actions and tactics, used by TI to circumvent regulatory and ethical limitations and promote its new range of heated products in Bulgaria. Data collection methods include: focus group at a closed workshop for journalists; investigative interviews; documentative desk review of sources; formal inquiries with involved media and TI companies; case studies, and participant observation.

Preliminary findings reveal that TI tactics for securing favorable media coverage involve establishing personal connections with journalists, and offering them incentives such as gifts and trips abroad. In some cases, such relations are sanctioned by editorial management. In others, the relationship with TI is institutionalized by the publishers who profit from favorable coverage of new tobacco products.

Another range of investigated TI industry methods involves sponsorship for public health opinion leaders, such as doctors, researchers or patients organizations and major events. In one case, many such opinion leaders, including smoke-free advocates, were approached with a paid recruitment offer for participation in a study of new tobacco products effects, lavishly funded by TI. The results from this study are expected to further how TI manipulates the public's and decision-makers' opinions in favor of novel tobacco products and against their restrictive regulations.

### Conflicts of Interest

While BlueLink is an independent non-profit think tank, bound by academic and journalistic ethical norms, it is a member of the Smoke-Free Life Coalition of Bulgaria, and one of the researchers is a founding member of the Smoke-Free Bulgaria initiative.

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## Reactions to standardised cigarette packs with varying structural designs, and the association with smoking susceptibility: A post-implementation cross-sectional survey with never-smoking adolescents in Scotland

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### Background

From 20 May 2017, cigarettes in the United Kingdom must be sold in standardised (plain) packaging, however, in the UK cigarette packs are permitted to have varying shapes (e.g. bevelled-edges and slim) and opening methods (e.g. shoulder box), unlike in Australia and New Zealand where packs must only have straight-edges and a flip-top lid.

### Objectives

We explore post-implementation reactions to standardised cigarette packaging among never-smokers in Scotland, whether reactions vary in relation to permitted variations in the pack structure, and whether reactions are associated with susceptibility.

### Methods

A cross-sectional survey with never-smokers aged 12–17 years (n=507) in Scotland, was conducted November 2017 to November 2018. Participants were shown one ‘regular’ standardised cigarette pack (flip-top lid and straight-edged pack, similar to the designs in Australia) and three standardised packs with varied pack structures (bevelled-edges, slim pack, and shoulder box), which are permitted post-implementation in the UK. Participants rated each pack on 8 five-point reaction measures (e.g. attractiveness). Participants also indicated which pack, if any, they would choose. Smoking susceptibility was the outcome.

### Results

The mean reaction scores for all four packs were mostly negative, however, the shoulder box was consistently rated less negatively than the regular, slim, or bevelled-edge packs. Most participants (87%) said they would not select any of the four packs, although susceptible participants were more likely to select one than non-susceptible participants (25% vs 7%;  $\chi^2=29.70$ ;  $p=0.001$ ). For all four packs, not finding them off-putting was associated with susceptibility (adjusted odds ratio range: 2.73–3.70), albeit only a minority of adolescents did not find each pack off-putting.

### Conclusions

Adolescents have negative reactions to the standardised cigarette packs implemented in the United Kingdom, albeit permitted variations in structure can reduce the extent of negativity. Most reactions to standardised packaging had no association with susceptibility.

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## Reactions to, and trial intentions for, three dissuasive cigarette designs: A cross-sectional survey of adolescents in Scotland

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### Background

The Scottish Government has identified dissuasive cigarettes, which provide exposure to health warnings at the point of consumption and reduce product attractiveness, as a future tobacco control measure to reduce smoking prevalence and encourage cessation.

### Objectives

We explore reactions to, and trial intentions for, three dissuasive cigarette designs, including varied colours and written text warnings, among adolescents in Scotland.

### Methods

A cross-sectional survey was conducted with adolescents aged 12–17 years in Scotland (n=594), between November 2017 and November 2018. Participants were shown one ‘standard’ cigarette (imitation cork filter with white paper casing) and three dissuasive cigarettes: 1) cigarette with warning ‘smoking kills’; 2) cigarette with message ‘toxic’ and skull and cross-bones image; and 3) a dark green cigarette. Participants rated each cigarette on 9 five-point reaction measures (e.g. appeal, harm). A composite reaction score was computed across the reactions items for each cigarette, and these were binary coded as overall negative reaction or not. Participants also indicated whether they would trial each cigarette design (Yes/No). Demographics, smoking status, and smoking susceptibility were also measured.

### Results

Most participants had negative reactions to the ‘smoking kills’ (85%), dark green (93%) and ‘toxic’ (96%) cigarette. For all three dissuasive designs, negative reactions were more likely among younger adolescents (vs older), never-smokers (vs ever), and non-susceptible never-smokers (vs susceptible never-smokers). Most participants reported they would not trial any of the cigarettes (range: 89–92%).

### Conclusion

Dissuasive cigarettes present a further opportunity to reduce the appeal of smoking among adolescents, in particular, those with explicit messages and imagery.

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## The implementation of a school-based tobacco prevention program: Lessons learned

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### Background

Bullshit Free Generation (BFG) is a tobacco prevention program in Flanders that aims to prevent students from starting to smoke by challenging the school, the teachers and the students to work on tobacco prevention throughout the students’ educational career (age 12–18 years).

### Objective

To evaluate the implementation of a school-based tobacco prevention program known as BFG.

**Methods**

In 29 schools, a pilot with a mix-method-design was conducted to evaluate the implementation of this program. An online pre-post survey was filled in by the school director and post surveys by the teaching staff and students. Focus group interviews were conducted in a selection of the pilot schools.

**Results**

In all, 25 of 29 pilot schools implemented BFG. The main reason for a school not implementing the program was poor support from the board. The support of the school staff is an important facilitator. A total of 10373 students participated in the program. Tobacco prevention was implemented in more than 30 different subjects. A total of 804 hours were spent teaching about tobacco. Good practices from other teachers are the main reason for teachers to talk about tobacco. Teachers and students are enthusiastic about the project. Students described the project as interesting, important, fun ... with an average satisfaction score of 70%. The score was lower when the student smoked. Of the schools, 80% have the intention to do this program again next year. The main reasons for future participation of schools are their interest in raising awareness about tobacco, the positive attitude towards the project, and the success with the students.

**Conclusion**

The interest of the school in raising awareness about tobacco, the overall experience with the project and the feedback from students are critical components in the implementation of BFG. Barriers for the implementation are the lack of support from the school board and teachers.

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## The burden of smoking in Switzerland: Estimation for 2015 and prognosis until 2050

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**Objective**

To estimate the burden of smoking in Switzerland for 2015 and predict smoking-related deaths until 2050.

**Methods**

Smoking attributable fractions (SAFs) are calculated based on the prevalence of smoking from the Swiss Health Survey and risk ratios extracted from literature. The burden of smoking is then estimated by applying these SAFs to total deaths, disability adjusted life years (DALYs), direct medical costs and productivity losses in the population. Deaths stem from the Swiss Death Statistics, DALYs from the Global Burden of Disease Study and disease costs from a recent study on the costs of non-communicable diseases in Switzerland. The smoking-related deaths are forecasted based on data from 1995 to 2015 using time-series analysis.

**Results**

In 2015, smoking caused 9535 deaths (14.1% of all deaths) and

208999 DALYs (10.2% of all DALYs). Direct medical costs of smoking were estimated at CHF 3 billion (CHF 363 per capita), 3.9% of all health-related spending, and productivity losses at CHF 2 billion (CHF 242 per capita). Our model predicts an increase in smoking-related deaths in women and a decrease in men until 2050.

**Conclusion**

Smoking causes a substantial burden for the Swiss society. Therefore, reducing smoking prevalence is an urgent public health priority.

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## Behavioral changes after the SHS-awareness campaign conducted in Ukraine in 2019

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**Background**

The secondhand smoke (SHS) awareness campaign held in Ukraine in summer 2019 aimed to raise awareness regarding the dangers of SHS exposure and to encourage activities able to diminish smoking in smoke-free zones.

**Objectives**

This study measured the changes in smokers' and non-smokers' behaviors after the campaign.

**Methods**

The surveys of representative samples of 2021 respondents before and 2035 after the campaign collected data on five key indicators: information coverage, awareness of SHS nature and impact, self-reported non-smokers' behavior, smokers' behavior, and non-smokers' behavior reported by smokers.

**Results**

The behavioral changes were seen in three major areas.

1. There was an increase in the proportion of self-reported active protests against smoking in smoke-free places, including making a comment to the smoker, posting a sign and reporting to the authorities. It was 30.2% in the post-campaign survey compared to 24.5% in the pre-campaign survey.
2. Smokers felt increased pressure from others when they smoked in the staircase of the house where they live (increased from 27.8% to 37.1%), at designated places at work (from 14.9% to 23.6%), in cafés, restaurants or bars (from 13.9% to 25.1%) and at the stops of public transport (from 11.5% to 23.6%).
3. The proportion of current smokers significantly decreased in those regions that were covered by the media campaign. Although no causal inference is possible with the available data, we see no change where no local activities were undertaken (28.5% before and after), a decrease is seen where outdoor billboards and indoor poster campaigns were conducted.

**Conclusions**

Comparing the results from pre- and post-campaign surveys, there seems to be a trend emerging among the Ukrainian population for reacting in favour of introduced tobacco control measures, including media campaigns.

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## Drama: An effective tool to raise tobacco awareness and critical thinking among students

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### Background

In Europe, smoking is very common among young people. Almost 2 out of 5 teens in Italy are 'habitual smokers' according to research carried out by ESPAD. That is the highest rate of all European countries. Education settings are optimal for implementing cigarette smoking prevention interventions for children and adolescents. Yet, traditional sit-desk interventions with an informative approach on smoking-related health hazards seem to be ineffective.

### Objective

To examine and evaluate the impact of drama techniques and social theatre developed by the Italian League against Cancer to enhance students' learning experience on tobacco knowledge and health, facilitate critical thinking toward smoking-related attitudes, norms, and promote pre-adolescents' self-reflection on identity.

### Methods

The University of Milano-Bicocca Department of Psychology conducted two separate studies in primary and secondary schools. Questionnaires were administered before and after drama interventions with the aim to assess critical thinking, learning experience on tobacco and health issues, self-efficacy beliefs, independent thinking, attitudes and cognitive representations associated to smoking behaviours. Students not involved in intervention projects were compared to the experimental group undergoing intervention.

A total of 746 students were included in the first Primary School project 'Agenti 00Cigarette': 398 children aged 9 years were provided with a drama tobacco issue workshop, as opposed to 348 children of the control group who did not take part in the treatment. Both groups were followed over a period of 4 years.

A total of 515 students were included in the Secondary School project 'Specchio Riflesso', 191 students aged 12 years were provided with the treatment, as opposed to 324 young students of the control group who did not take part in the treatment. These last two groups were followed over a period of two years.

### Results

Analyses of variance and t-test were performed to test differences pre-post drama intervention and to compare the intervention group with the control one. Students reported a higher knowledge about smoking and its harmful effects, compared to their fellow students who reported a greater number of wrong answers.

Results attest the efficacy of drama methodology to diminish the attractiveness of cigarettes, and to promote higher assertiveness towards peer pressure and self-efficacy to express opinions.

### Conclusions

Drama and social theatre techniques can be an effective educational tool among pre-adolescents to promote health issues and maximize learning experience on health issues. Studies show the effectiveness of LILT project to contrast positive attitudes and emotions traditionally associated with cigarettes by promoting interpersonal self-efficacy beliefs and independent thinking.

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## Campaigns to keep youngsters from smoking require a continuous evaluation and adjustment of both strategy and concept: Results of the 2016–2020 campaigns in Flanders, Belgium

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### Background

A Flemish health survey revealed that most of the youngsters start smoking at the age of 15, with youngsters in vocational education being more vulnerable. Peer relationships play a crucial role.

### Objectives

To create campaigns to keep youngsters between 12 and 15 years from smoking, focusing on the most vulnerable ones.

### Methods

1) Qualitative research of the target group and their media consumption; 2) development of creative concepts and a corresponding media plan; 3) qualitative evaluation of the developed concept by the target group; 4) launching of the campaign followed by continuous quantitative assessment and adjustment.

### Results

Between 2016–2018, YouTubers made vlogs about toxic substances in cigarettes 'Vloggers versus Cigarettes'. Evaluation of the campaign revealed that 62% of the target group recognized the campaign and that the message ('smoking is unhealthy and dirty, so don't start') was evident. The campaign resulted in young people talking about smoking and reached youngsters in vocational education. But still, 10% considered giving smoking a try. Based on this evaluation, the concept and strategy were adjusted, aiming to encourage youngsters not to start smoking. In 2019 a fiction series named @InstaLove was launched on Instagram. InstaLove was the first-ever Instagram soap and showed four friends challenging each other in a dating game and this during six weeks. Evaluation of the first wave revealed that 93% of non-smokers indicate that @InstaLove encourages youngsters not to smoke. Based on the evaluation, the series will be adjusted and relaunched in 2020.

### Conclusions

We were able to set up successful campaigns to keep youngsters from smoking, but continuous evaluation and adjustment of the strategy and concept are required to be sustained over time.

### Funding

The campaigns were largely funded by our own NGO, and part of the costs were funded by the Flemish Government.

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## Psychosocial risk factors of tobacco use in Turkey: From a nationally representative data set from 2008

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### Background

Smoking is the leading preventable cause of death in the World. Turkey, with a prevalence of 27%, has one of the highest rates of smoking in Europe. Effects of psychosocial factors such as subjective well-being (SWB), negative affect (NA), self-esteem

(SE) and religiosity have not been explored at a national level for a high prevalence, Muslim country like Turkey.

### Objective

To investigate the effects of psychosocial risk factors for smoking in Turkey from a nationally representative data set from 2008.

### Methods

A survey aimed to investigate subjective well-being, perception of health and religiosity was administered to 3002 people (mean age:  $39.6 \pm 14.87$  years) from 26 provinces in Turkey. Half of the participants were female (50%), the majority of the sample had a middle-income (64%), and nearly all were Muslim (95.4%).

### Results

Groups' mean SWB score was  $18.6 \pm 7.24$  out of 35, and mean NA score was  $16.2 \pm 5.01$  out of 30. While 35.8% were regular smokers, 4.8% of the participants were non-regular users, and 60% did not smoke. Logistic regression was utilized to test the association among NA, SBW, religiosity, SE, tolerance for uncertainty and smoking status. The model showed significant effects of NA and SWB on smoking status while religiosity, SE and tolerance for uncertainty had no effect when gender, age, income and alcohol use were controlled for ( $R^2=0.29$ ). Both lower SWB and higher NA increased the likelihood of being a smoker. The model results changed across age groups and gender. The effect of NA was no longer observed in males, and religiosity had a significant effect among people aged 40–54 years.

### Conclusion

The details of the model and its implications for smoking cessation will be further discussed to shed light on the nature of psychosocial risk factors on smoking and cessation.

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## Tobacco-related health education in schools in seven EU cities

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### Background

Schools have been key settings for health education for over a century<sup>1</sup>. Tobacco use is the leading cause of preventable death in Europe and smoking typically begins during adolescence. Therefore, the school setting is frequently used to provide tobacco-related health education, to educate about risks and to implement tobacco prevention and cessation programmes<sup>2</sup>. Little is known about tobacco-related health education and how key school personnel understand and deliver it. This paper provides a cross-European analysis of tobacco-related health education, and policy recommendations for successful delivery.

### Methods

The SILNE-R study was carried out between 2016 and 2018 to evaluate the effectiveness of programmes and strategies to prevent youth smoking in Belgium, Italy, The Netherlands, Portugal, Finland, Ireland, and Germany, and to make policy recommendations. We used secondary data from SILNE-R, including a survey of 12979 students aged 14–16 years in 55 schools in 7 European cities. Content analysis<sup>3</sup> of synthesized findings from 84 interviews among staff members of 28 schools was used to generate broad themes about tobacco-related health

education, using an iterative, sequential process that involved organisation, immersion, and the generation of categories and themes through coding<sup>4</sup>.

### Findings

Five themes relating to formal tobacco-related health education and its delivery in schools were identified as having policy implications: multiple approaches to curriculum design and content; pedagogy and the need for instructional methods that are student-centred, supportive, dialogical, and age appropriate; the requirement for resources, including materials, personnel, and partnerships; the importance of leadership and whole-school approaches for successful implementation; and inadequacies in teacher education relating to tobacco-related health education.

### Conclusion

Recommendations are offered to support tobacco-control and educational policy-makers in developing, implementing, and supporting tobacco-related health education in schools to reduce and prevent youth smoking.

### Funding

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## Adolescents and tobacco use in Vlora, Albania

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### Background

Adolescent risky behaviours are influenced by a wide range of factors such as gender, culture, family, personal perceptions or society.

### Purpose of the study

Evaluation of tobacco use among adolescents aged 13–16 years in Vlora in order to identify the factors that influence its use.

### Methodology of the study

This is an analytical study conducted during the period March – May 2019. This study included 360 adolescents in Vlora. Two questionnaires were used: the Youth Risk Behaviors Questionnaire and the Youth Tobacco Questionnaire.

### Results

The average age of adolescents was 14.52 years, 59.7% were male, 64.4% reported having used tobacco at least once, 21.7% have tried it for the first time at age 9–10 years. Females were those who had previously experienced tobacco. Curiosity, society, adolescents' perception that smoking relieves stress, or smoking helps reduce appetite are the factors that influence smoking



( $p < 0.009$ ). Adolescents whose parents smoke were more likely to smoke ( $p = 0.015$ ). In all, 89.11% of adolescents had tried alcoholic beverages with a higher tendency among males. Only 0.6% of adolescents had tried marijuana.

#### Conclusion

Tobacco consumption significantly affects the consumption of alcoholic beverages and vice versa ( $p = 0.0003$ ). The consumption of cigarettes in the last 30 days also influenced the amount of marijuana used, but not necessarily regularly ( $p = 0.0001$ ). Adolescents who are non-casual users of tobacco and alcohol are likely to become casual users of marijuana.

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### The influence of smoking in hand microsurgery: Preliminary results from a systematic review

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#### Background

Worldwide, more than 1.1 billion people are tobacco smokers. Smoking tobacco is known to cause severe health effects, including cancer, cardiovascular and respiratory diseases, and it is one of the main causes of preventable death. It seems to be also one of the major risk factors for vascular alteration of the microcirculation.

#### Objectives

The aim of this study was to evaluate the influence of smoking on hand microsurgery.

#### Methods

PubMed and Cinahl were searched until November 2019. English full-text studies that investigated the relationship between smoke exposure and the onset of post-microsurgery complications of the hand, in adults, were included. Any type of study design was considered.

#### Results

Only 15 studies out of 371 met the inclusion criteria. From a preliminary analysis of the results reported by the studies included in this review, it was possible to summarize smoking effects in 3 macro-areas: 1) effect of smoke on the microvascular flow (78%) in particular vasoconstriction of the vessel, slowing of blood flow and reduced tissue perfusion; 2) smoking-related post-operative complications (64%) mainly regarding wound healing and infections; 3) failure of hand microsurgery procedure (12%).

#### Conclusions

Exposure to tobacco smoke pre- and post-microsurgery of the hand seems to be associated with high increase in the risk of post-operative complications.

Quitting smoking at least 4 weeks before surgery is strongly recommended.

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### Tobacco management in the redesigned post-degree nursing academic curriculum at Sapienza University, Rome, Italy: Preliminary evaluation and results

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#### Background

Nurses have a significant role in public health, including being active in supporting smokers to quit. According to the ENSP guidelines, it is strongly recommended that health professionals have specific training on tobacco. Currently, nurse academic training in tobacco education is still lacking in Italy. For this reason, the post-degree nursing academic curriculum of Sapienza University of Rome was redesigned and tobacco management formally included to improve knowledge, training and performance about smoking.

#### Objectives

The aim of the study was to evaluate the effectiveness of the new course in tobacco management in terms of increasing the tobacco treatment interventions delivered by nurses.

#### Methods

The EPACTT-Plus questionnaire was administered to each student before the first lesson (T0) and before the exam (T1). The questionnaire investigated among other current practices in tobacco management: the 5As model. Responses were assessed as: 'never'=1, 'few times'=2, 'half times'=3, 'many times'=4, and 'always'=5. Percentages, paired t-test and Wilcoxon were used to describe the sample and evaluate differences between T0 and T1.

#### Results

A sample of 36 students filled in the questionnaire (83% females, 89% aged <39 years, 42% smokers). They work in public (66%), urban (89%) settings and 92% have not received previous training in smoking cessation. At T0 only 34% reported 'many times/always' to ask patients if they smoke, while at T1 that percentage was 74% (mean scores respectively at T0 and T1 were  $2.77 \pm 1.46$  and  $3.78 \pm 1.10$ ;  $p < 0.001$ ). About 'Advice' at T0, only 40% reported 'many times/always' to advice patients to quit, while at T1 that percentage was 64% (mean scores respectively at T0 and T1 were  $3.11 \pm 1.49$  and  $3.78 \pm 1.04$ ;  $p < 0.01$ ).

#### Conclusions

These preliminary results show that the inclusion of a formal dedicated course in tobacco management at least in the post-degree nursing academic curriculum is strongly recommended to empower nurses in delivering tobacco treatment interventions.

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## Smoking behaviour and intention to quit among Romanian adults who have relatives with cancer or cardiovascular diseases

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### Background

Smoking cessation is an important pillar for prevention and control of chronic diseases, while the moment of diagnoses of such a disease among adults or their relatives might prompt the desire and motivation for quitting smoking.

### Objectives

The aim of this study is an assessment of smoking behaviour and intention to quit smoking among Romanian adults having relatives with cardiovascular diseases (CVD) or cancer.

### Methods

The study was performed in 3 hospital settings from Cluj-Napoca, Romania. It involved 180 adults (90 men and 90 women) who had relatives with diagnoses of CVD and 320 adults (160 men and 160 women) having relatives with cancer. Data were collected through anonymous questionnaires.

### Results

The results show that among people having relatives with CVD, 26.1% were current smokers (smoked in the last week), while 28.1% of the people who had relatives with cancer declared current smoking. Around one-third of the smokers declared that they would like to quit smoking in the next six months, this intention being associated with several factors related to attitudes about advantages and disadvantages of smoking, social influences, as well as self-efficacy and action plans for smoking cessation declared by them.

### Conclusions

Assessment of smoking behaviour and appropriate services for smoking cessation should be offered to Romanian adults having relatives with chronic diseases such as cancer or cardiovascular diseases.

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## Effective science communication for public health: The Tobacco Atlas Germany 2020

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### Background

In Germany, the implementation of FCTC is lagging behind. To counter the intense lobbying by the tobacco industry, policymakers, public health advocates as well as journalists urgently need sound, but easily understandable scientific information to back additional policies for tobacco control.

### Objectives

Development of a comprehensive tobacco atlas to compile multifaceted scientific information in a single publication to facilitate communication of scientific evidence to policymakers in a straightforward, clear and illustrative way.

### Methods

Compilation of relevant data on tobacco smoking and use of electronic nicotine delivery devices (ENDS), health effects and

data on the tobacco industry. The number of tobacco-attributable deaths is calculated for Germany.

### Results

In a clear and illustrative way, the Tobacco Atlas Germany 2020 compiles recent data on the consumption of tobacco products and ENDS, their health effects, the death toll of smoking as well as the costs of smoking to society. The atlas describes tobacco control efforts and pitfalls in Germany and compares German tobacco control to tobacco control in other European countries. The information is given by illustrative graphics, completed by short, easily understandable text information.

### Conclusions

Due to its comprehensive, but highly illustrative and comprehensible information, the Tobacco Atlas Germany 2020 is a valuable, comprehensive reference book for policymakers, media and multiplicators.

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## Smoking cessation in patients with head and neck cancer

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### Background

Head and neck cancers make 5% of the total number of malign tumours with about 830000 newly diagnosed patients and 430000 deaths per year<sup>1</sup>. They usually affect people aged 50–70 years and are four times more frequent in men.

In Central Serbia, there were 1205 newly registered cases in 2015 (945 men and 260 women). The tumours most commonly affect larynx (48.3%), mouth and oral cavity (32.4%), hypopharynx (7.4%), oropharynx (3.4%) and nasopharynx (3.2%). Despite the modern diagnostic methods, head and neck cancers are diagnosed in stages III and IV in about 65–75% of cases.

### Objectives

To investigate the epidemiological characteristics of the head and neck cancers in Serbia and to point out the adverse effects of smoking in treatment procedures.

### Methods

Epidemiological situation analysis was performed of the malignant diseases based on the data of incidence and mortality and the impact of smoking on the results of treatment.

### Results

The most significant risk factors for head and neck tumours are alcohol and tobacco use, including pipe smoking and chewing tobacco. The current research indicates that most cancer patients find smoking harmful and are motivated to stop smoking after their cancer diagnosis. Lung cancer patients with head and neck localizations quit smoking in 46–96% of cases. Studies show that smoking reduces the effectiveness and the rate of complete

response to radiation treatment (the most common treatment for head and neck tumours), and increases the risk of radiation-related complications, toxicity and side effects. Thus, patients are explicitly required to quit smoking in certain circumstances.

### Conclusions

It is crucial to implement smoking cessation programs that should be accommodated to oncology patients and implemented at the Institute of Oncology and Radiology of Serbia.

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## Effectiveness of tobacco dependence treatment training: Experiences of Armenian TB patients

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### Background and Objectives

Regular patient-provider interactions for at least six months during tuberculosis (TB) treatment serve as an opportunity to continuously implement smoking cessation counselling with TB patients. However, healthcare providers' poor capacity hampers the provision of smoking cessation counselling as a part of the standard TB care. We aimed to assess the effectiveness of a two-day tobacco dependence treatment training program for TB physicians from the perspective of TB patients' experiences.

### Methods

A cross-sectional telephone survey was conducted among adult TB patients within two months after completion of treatment. We collected baseline data from patients who completed the treatment before provider training and follow-up data from patients who completed the treatment at 6 months after provider training (a non-experimental pre-post design). The smoking cessation counselling received during the last TB treatment was assessed based on the 5As model. Student's t-test and chi-squared test were performed.

### Results

Overall, 163 and 177 patients participated in baseline and follow-up surveys, respectively. At baseline and follow-up, the majority of smokers reported that the healthcare providers asked about their smoking status (Ask: 92.63% vs 94.85%;  $p=0.753$ ) and advised to quit smoking (Advice: 90.43% vs 93.62%;  $p=0.334$ ). At follow-up, a significantly higher proportion of smokers reported that TB physicians assessed their willingness to quit (Assess: 33.70% vs 64.13%;  $p<0.001$ ) and provided smoking cessation assistance (Assist: 5.38% vs 40.00%;  $p<0.001$ ). At follow-up, more patients reported about follow-up appointments by their physicians to discuss their quitting progress (Arrange: 6.32% vs 17.53%;  $p=0.051$ ). TB patients' self-reported quitting rates were not statistically significantly different (16.84% vs 14.43%;  $p=0.646$ ).

### Conclusions

TB physicians' enhanced capacity to provide smoking cessation counselling was shown to be effective in improving patients' experiences. Continuous efforts are needed to enhance the

effectiveness of smoking cessation services and eventually impact on the quitting rate.

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## The Danish model for smoking cessation

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### Background

A focus area in Denmark is to reduce social inequality in health, and it is evident that smoking plays a significant negative role. There is a need for a focus on initiatives that reduce barriers for receiving professional cessation counselling. In Denmark, municipalities are responsible for smoking cessation.

### Objectives

The aim is to reduce the number of smokers participating in professional cessation counselling by increasing referrals and proactive recruitment and making cessation medications more available to all income groups.

### Method

Two national grants enabled Danish municipalities to work on the targeted aims. The target groups were heavy smokers and socially vulnerable, respectively. The Danish Health Authority evaluated the effects of the projects.

### Results

The target group were more likely to complete a course compared with other participants. Regarding the grants, targeting the socially vulnerable, 74% of the target group were smoke-free by the completion of the course, for participants who did not receive subsidized smoking cessation medications that number was 66%. After six months, the percentage of smoke-free participants were 48% and 42%, respectively.

### Conclusion

Subsidized smoking cessation medicine has a positive and statistically significant effect on the likelihood of the participant staying smoke-free six months after the cessation course, even when the cost is only partially covered. Receiving subsidized smoking cessation medications can help local cessation services recruiting the target group, but it can also have a stigmatizing effect that some participants are 'labelled', i.e. socially vulnerable.

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## Smoking cessation effectiveness of a quitline in Ukraine

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### Background

Overall, 20.1% (7.2 million) of adults currently smoke tobacco daily (35.9% among men and 7.0% among women). In all, 49.2% of patients who smoke had received medical advice from Ukrainian healthcare facilities; also, 39.4% of smoker patients were advised to quit smoking. More than 60% of smokers want to quit smoking, 39.2% of smokers have tried to quit smoking in the last year, and 1.2%

have succeeded. Among daily tobacco smokers, 69.2% reported first smoking within 30 minutes of waking up in the morning.

### Objectives

To evaluate the effectiveness of the quitline.

### Methods

An analysis of the effectiveness of telephone consultations on the national free smoking cessation service was conducted—counselling period two recent years (2017–2019). Smokers receive initial counselling (reactive call) and then, at will, supportive consultation (proactive calls). We consider those who have quit smoking for six months or more.

### Results

Portrait of several clients: mainly middle-aged and older men (50–70 years) who have extensive smoking experience (>30 years), smoke in on average one pack a day, and have a high level of nicotine dependence. Among all 1651 smokers who were consulted by telephone, the following appeared: 53% (883 smokers) made a quit plan, scheduled a quit day and moved to a proactive counselling phase; 24% of smokers (401 clients) quit (6 months or more) and receive supportive counselling; 3% (47 clients) received doctor's advice on medication.

### Conclusions

Of the quitline customers, 12.5% successfully quit (quit for more than 6 months). Compared to the fact that 1.2% of the respondents successfully quit smoking in Ukraine during the year, this assistance shows its effectiveness.

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## Smoking among health professionals in Serbia

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### Background

Research shows that in many developing countries, not only health professionals are insufficiently involved in tobacco control and smoking cessation interventions, but there is a high prevalence of smoking among them.

### Objectives

The aim of this study is to identify smoking status among employees in healthcare institutions in Serbia, especially among medical doctors and nurses.

### Methods

Data on smoking prevalence of employees in public healthcare institutions are collected within the national survey on employees' satisfaction, which is implemented annually. A question on smoking status has been added in the standard questionnaire in 2018 wave. Data were collected from 324 health institutions. In total, 71512 questionnaires were distributed and completed by 59997 employees present on the day of the survey, while 53592 employees provided an answer to smoking status.

### Results

More than one-third (35.2%) of employees in public healthcare institutions smoke daily (25.8%) or occasionally (9.45%), and 18.3% are former smokers. Percentage of smokers is lower among medical doctors (24.2%) compared to nurses/medical technicians

(37.3%) and administrative (36.7%) and technical staff (44.4%). Less medical doctors smoke (daily or occasionally) at primary healthcare level (23.1%) compared to secondary (25.4%) and tertiary level (25.5%). Differences in smoking status among nurses/medical technicians according to the level of healthcare are even more significant with 33.6% smoking at primary level, 39.0% at secondary, and 41.2% at the tertiary level of healthcare.

### Conclusion

Smoking prevalence among health professionals in Serbia is high, especially among nurses/medical technicians and medical staff in secondary and tertiary healthcare institutions. High smoking prevalence is a significant barrier to implementation of smoking cessation, including brief interventions. These findings call for the implementation of a tailored intervention in Serbia that is aimed at health professionals at all levels of healthcare.

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## Smoking cessation practices in Armenia and Georgia

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### Background and Objectives

Smoking is a significant public health concern in Armenia and Georgia, with high smoking prevalence (51.5% and 59.2% in men, 1.8% and 7.3% in women, respectively). The study aimed to explore the smoking characteristics and quitting practices among the general population in Armenia and Georgia.

### Methods

In 2018, an interviewer-administered survey was conducted in 28 communities in Armenia and Georgia using random and multi-stage cluster sampling, respectively. An adult respondent in each household was identified using KISH method. The study instrument included questions on smoking characteristics and quitting practices including readiness, importance and confidence in quitting.

### Results

Overall, 1456 adults from Armenia (n=705) and Georgia (n=751) participated in the survey with mean age 43.4±13.5 years. The majority were non-smokers (72.7%) and female (60.5%). About one-third of respondents (32.9%; n=479) smoked at least 100

cigarettes in their lifetime, and the vast majority (83.1%; n=398) were current smokers. The smoking prevalence among the male population in both countries was relatively high (63.8% and 64.1% in Armenia and Georgia, respectively). More than half of the smoker respondents (56.3%) reported a quit attempt for one day or longer and significantly higher proportion of smokers in Armenia reported a quit attempt (74.1% vs 46.5%;  $p<0.001$ ). Likewise, a higher proportion of smokers in Armenia were ready to quit in the next six months (21.7% vs 13.7%;  $p=0.080$ ). Overall, the study participants in both countries reported greater importance of quitting (mean;  $5.34\pm 5.74$ ) than confidence (mean;  $4.79\pm 3.18$ ). The importance mean score was significantly higher in Armenia (6.47 vs 5.33;  $p<0.001$ ).

### Conclusions

Many smokers in both countries recognized the importance of quitting; however, many were not confident in their ability to quit. The study findings support the urgent need for implementing targeted interventions and strengthening the smoking cessation infrastructure to increase the quitting rates.

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## Motivations and barriers to smoking cessation among TB patients

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### Background and Objectives

The association between smoking and progression of tuberculosis (TB) and poor treatment outcomes is firmly documented. The TB diagnosis is a teachable moment for quitting; however, many patients remain smokers. We aimed to identify the main motivations and barriers to quitting among TB patients in Armenia.

### Methods

A cross-sectional telephone survey was conducted among adult TB patients two months after completion of treatment. Patients, who made at least one quitting attempt, reported one or more motivations or barriers to quitting that they experienced during the last quitting attempt. Motivations and obstacles between successful quitters and non-successful attempters were compared using descriptive analysis and chi-squared test.

### Results

Overall, 163 patients participated in the survey, and the majority were male (74.23%). More than half of the participants (58.28%; n=95) were smokers at the beginning of TB treatment and 60.0% (n=57) of smokers made at least one quitting attempt. At the end of the treatment, 42.10% (n=24) of the attempters were successful in quitting. The most commonly mentioned motivation to quit for successful quitters and non-successful attempters was health concerns for self and family (58.33% and 74.29%;  $p=0.198$ , respectively), followed by advice from a physician (29.17% and 28.57%;  $p=0.960$ , respectively). The most commonly mentioned barrier for successful quitters and non-successful attempters was cravings for a cigarette (33.33% and 51.43%;  $p=0.169$ , respectively). A significantly higher proportion of non-successful attempters experienced the loss of a way to handle stress compared

with the successful quitters (28.57% vs 4.17%;  $p=0.018$ ). Overall, successful quitters reported significantly fewer barriers compared with the non-successful attempters (54.17% vs 20.00%;  $p=0.006$ ).

### Conclusion

Interventions should be integrated into TB care to raise patients' apprehension of health concerns caused by smoking and physicians' cognizance to provide assistance for smoking cessation. Evoking TB patients' motivations and controlling for barriers during TB care may positively affect quitting.

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## Smoking and oxidative stress among patients with mixed anxiety and depressive disorder

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### Introduction

Oxidative stress is induced by tobacco smoking and is also associated with anxiety and depression, two common psychiatric disorders, frequently associated with tobacco use.

### Aim

The aim of this study was to correlate tobacco use and mixed anxious-depressive disorder with oxidative stress markers useful in clinical practice.

### Material and Methods

A study assessing uric acid, vitamin C and malondialdehyde, as oxidative stress markers, was conducted in 31 smokers versus non-smokers with mixed anxious-depressive disorder. Other useful parameters assessed were: serum cholesterol, triglycerides and creatinine. Smoking profile was quantified by the number of pack-years (PY) and the Fagerström nicotine dependence score (FNDS) with exhaled carbon monoxide (CO) validation, while mixed anxious-depressive disorder was certified by the Hamilton Anxiety/Depression Scale (HAM-A/D).

### Results

In both smokers and non-smokers were found very high values of the HAM-A anxiety evaluation score (17–41) as well as for the HAM-D depression evaluation score (12–26), as most subjects were diagnosed with severe anxiety and moderate depression. Malondialdehyde (MDA), serum concentration was significantly increased in 73% of the smokers, while vitamin C was lower in 90% of both smoking and non-smoking patients. Lower concentrations of uric acid were found in smokers, suggesting a decreased endogenous production. The correlation matrix between the biochemical and the clinical parameters for the assessment of oxidative stress in smokers and non-smokers diagnosed with mixed anxious-depressive disorder had statistically significant correlation coefficients ( $r=0.39-0.84$ ;  $p<0.05$ ), which could explain the variation in serum MDA and Vitamin C concentrations depending on the severity of the nicotine dependence.

### Conclusions

Tobacco smoking amplifies oxidative stress described in psychiatric disorders. Monitoring most important biomarkers of

both tobacco exposure and of oxidative stress can improve mixed anxious-depressive disease management.

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### Smoking cessation for patients with COPD, cardiovascular diseases and diabetes

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#### Introduction

Smoking cessation is a crucial intervention for reducing progressive lung deterioration in patients with Chronic Obstructive Pulmonary Disease (COPD) and for reducing mortality from cardiovascular disease. Smoking among diabetic patients amplifies the risk of cardiovascular morbidity as well as the total mortality.

#### Aim

To examine the real-world effectiveness of the 2017 Specialized Tobacco Cessation Guidelines for High-risk Groups (TOB-G) recommendations among patients with: COPD, cardiovascular (CVD) disease and Type II diabetes or pre-diabetes.

#### Methods

A pre-post pilot study was conducted among patients with COPD, cardiovascular disease and diabetes or pre-diabetes with current tobacco use, willing to quit smoking. Participants received a face-to-face counselling session at baseline and three telephone counselling sessions at 1, 2, and 6 months, from a trained healthcare professional. The primary outcome measure was point prevalence smoking abstinence measured at 1, 2, and 6 months, with biochemical validation at baseline and six months.

#### Results

Among the 50 COPD patients (74% male; mean age 60.2±7.8 years), self-reported smoking abstinence was 30.6%, 44.9% and 64.6% at the 1, 2, and 6 months follow-up, respectively, with 33.3% confirmed by carbon monoxide (CO) validation. In CVD smokers, self-reported smoking abstinence ranged from 25.5%, 29.4% and 36.0% abstinent at the 1, 2, and 6 months follow-up, respectively, all verified by exhaled CO. The 50 diabetes/pre-diabetes (49%/51%) smokers had a self-reported and validated abstinence of 32.7% at both 1 and 2 months, and 63.3% at 6 months ( $p<0.001$ ). Higher quit rates were documented among pre-diabetics versus diabetics (72% vs 54.2%;  $p=0.196$ ), without statistical significance.

#### Conclusions

Employing the TOB-G evidence-based tobacco treatment recommendations among samples COPD, CVD and diabetes/pre-diabetes patients determined important changes to smoking status.

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### Integrating smoking cessation into programs for prevention, screening and treatment of cancer

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#### Background

Smoking cessation (SC) counselling has rarely been recommended in cancer screening outpatient clinics and in Cancer Centers in Europe.

#### Objectives

Main aims of this paper are to review the evidence of health benefits from SC among cancer patients and to identify strategies to approach SC among cancer patients, and, more in general, among people who undergo to cancer screening programmes or are exposed to clinical encounters at any healthcare service.

#### Methods

To collect and summarize articles and reviews on health benefits of SC in cancer patients, and on strategies to approach smokers in healthcare services and in cancer screening settings.

#### Results

A growing body of literature has identified substantial health benefits from SC in cancer patients including improved general health, improved all-cause and cancer-specific mortality, reduced toxicity, greater response to treatment and decreased risk of disease recurrence and second primaries.

In Europe, ascertainment and treatment of smokers in Oncologic Departments, in cancer screening outpatient clinics, and all healthcare services is not well embedded in service designs, patient pathways or disease treatment guidelines, and typically use an opt-in design. Systems in which smokers are systematically identified and offered treatment on an opt-out basis approximately doubles quit rates achieved by opt-in approaches. This is true for Cancer Centers, cancer screening outpatient clinics, and for every healthcare service. The main point is to develop a training system on SC counselling for health professionals.

#### Conclusions

By offering SC counselling in cancer screening settings, smokers will increase quit attempts. Moreover, by systematically offering SC in Oncologic Departments, cancer patients will achieve the best possible health benefits from their cancer treatments. Framing SC as a quality of care issue will be a critical point in order to promote SC in Oncologic Departments.

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### Joint position of the French speaking society of pulmonology (SPLF) and tabacology (SFT) on e-cigarette use as a smoking cessation tool

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This agreement on e-cigarette use as a smoking cessation tool was obtained between SPLF and SFT by progressive expert's consensus in November 2019.

- E-cigarette should not be used by non-smokers. E-cigarette use is not recommended without a smoking cessation plan.
- The harmful health effects of tobacco smoke on individuals and populations are significant; tobacco represents the first preventable cause of diseases and death, especially of the respiratory system.
- Smoking cessation pharmacotherapies are available and approved: nicotine replacement therapy, varenicline and bupropion (only bupropion is not reimbursed in France). These drugs must be prescribed as first-line medications before e-cigarette use.
- E-cigarette with a nicotine cartridge is a non-medicated tool of potential help for smoking cessation.
- The harmlessness of the e-cigarette, even when well used, cannot be ascertained. However, the potential toxicity of e-cigarettes, used under the conditions authorized in Europe, appears to be much lower than that of smoked tobacco.
- In the current state of knowledge, e-cigarette use is to be preferred to tobacco consumption.
- E-cigarette use aiming at smoking cessation should be of limited duration, once abstinence is achieved and the urge to smoke suppressed.
- Questions about e-cigarettes use should be part of any health professional visit.
- E-cigarettes use should be banned in closed public areas. The sale of e-cigarettes and e-liquids is prohibited for minors.
- Research on the short, medium and long-term effects of e-cigarettes must be developed.
- Regular assessment by health authorities and concerned scientific societies should be regularly performed.

These recommendations have been disseminated with a practical guidance for new e-cigarette users.

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## Nursing prescription and reimbursement of nicotine replacement therapy in France

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### Background

Since the law of 26 January 2016, occupational physicians, dental surgeons, nurses and physiotherapists, alongside doctors and midwives, are authorized to prescribe nicotine replacement therapy (NRT). Midwives have benefited from an extension of their prescription rights to those close to pregnant women. Since January 2020, NRT on prescription is reimbursed 100% for patients with long-term illness and 65% for others, but with the reimbursement of 35% of additional insurance. As a result, the smokers had nothing to pay, without time limitation. We analyze the consequences of these decisions.

### Methods

Data from 2018 Health Insurance and a survey of nurses were analyzed.

### Results

According to National health insurance data, the number of non-

physician prescribers increased from 2017 (4.8%) to 2018 (8%) (3.7% nurses), but non-physicians prescribed less: the 2706 nurses who prescribed NRT in 2018 made only 7235 prescriptions (2.7 prescriptions per nurse), but the number of nurse prescribers had more than doubled from 2017 to 2018.

According to the questionnaire-based survey initiated by the French Association of smoking cessation nurses (AFIT&A) to which 744 nurses replied, 63% know the regulations that authorize them to prescribe. Still, only 17% prescribe, (which is much more than in the general population of nurses, <1%), this is particularly true for nurses in addictology and tobacco centres. Many obstacles must be overcome to help the progression of NRT prescription by nurses: the need for training, access to hospital computer systems for prescription, and funding this new activity.

### Conclusions

Following the new regulation that authorizes NRT prescription by nurses, the nurses' prescriptions had double in 2018 compared to 2017, but remain marginal compared to NRT medical prescription.

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## Integrating smoking cessation into a program of screening and prevention of cardiovascular risk factors in Romania

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### Background

The European Union is currently funding, through its Health Programme, the implementation in Italy, Lithuania, Romania and Luxembourg of the project 'YOUNG50' – an organized cardiovascular risk screening programme for active prevention in fifty-year-olds.

### Objectives

This study focuses on the implementation of the project in Romania, giving special attention to the actions proposed to integrate smoking cessation into screening and prevention of cardiovascular risk factors.

### Methods

The study presents strengths and weaknesses as well as concrete solutions to enhance smoking cessation in Romania as an essential pillar for cardiovascular disease prevention.

### Results

The activities will include a screening for behavioural as well as biological risk factors among people 50 years old from Cluj-Napoca, Romania as well as appropriate information, education and counselling for healthy lifestyle promotion, based on the risk factors identified during the screening. To facilitate smoking cessation, several educational approaches will be used including leaflets and the use of a computer-tailored program for smoking cessation, which allows comprehensive counselling for smoking cessation through the use of information and communication

technology.

### Conclusions

The project integrates smoking cessation as part of a comprehensive program for screening and prevention of cardiovascular risk factors and health promotion among Romanian adults.

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## How to successfully implement tobacco use prevention and cessation programs aimed at vulnerable populations: New insights from the project DCAP in France

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### Background

Smoking prevention interventions outcomes remain unequal in France. Yet, there are few research details on how to implement interventions to prevent smoking or assist smoking cessation targeting vulnerable groups, like young people or disadvantaged groups. Conversely, large amounts of experiential knowledge from health promotion, social and education workers tackling this issue remain unknown and untapped.

To bridge these gaps, the French Society for Public Health designed the project DCAP.

### Objectives

Initiated in 2019, DCAP consists in capitalizing, i.e. collecting, documenting and circulating, experiential knowledge from practitioners who implement tobacco prevention interventions (TPI) at the local level, for either young and/or vulnerable people. The project aims at building up original knowledge from field actions; documenting how TPI unfold in various contexts; sharing experiences, fostering collaboration and supporting professional practices. Forty interventions will be documented until 2021.

### Methods

DCAP follows three main steps: 1) identifying promising TPI nationwide, 2) documenting selected TPI, and 3) sharing knowledge on TPI via an online portal.

To document TPI, DCAP uses in-depth semi-structured interviews, following a guideline designed to capture and report the key mechanisms that influence how TPI unfold and their outcomes (context, partnerships, barriers and levers, ethics).

### Results

Preliminary results provide cross-cutting insights on current trends in smoking prevention in France and highlight the momentum the monthly nationwide campaign brings to local projects (Moi(s) sans Tabac).

Successful strategies often rely on partnerships between health professionals and other workers. Practitioners face 3 types of issues: 1) sustaining long-term cross-sectorial partnerships; 2) building support for TPI on-site (in prisons, emergency housing etc.); and 3) innovating and adjusting TPI to the needs of specific groups.

### Conclusions

Documenting interventions that work for vulnerable people is crucial. DCAP contributes to valuing experiential knowledge in smoking prevention and cessation. DCAP also contributes to ECTC goals of promoting tobacco prevention strategies as inclusive as possible.

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## A randomized clinical trial evaluating a digital avatar-led smoking cessation program for young adults

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### Background

Smoking remains a global concern, especially for young adults. There is a dearth of smoking cessation programs for this population, who seldom seek help or are motivated to quit.

### Purpose

This pilot study assessed the effectiveness of a digital avatar-led Acceptance and Commitment Therapy (ACT) smoking cessation program (Flexiquit) for young adult smokers at all levels of motivation to quit.

### Methods

Smokers with no particular interest in quitting smoking (65.45% reported being in pre-contemplation or contemplation stages of change) were recruited from three universities (105 smoking  $\geq 1$  cigarette per day during the past 30 days, 68 females). Those who completed questionnaires online ( $n=84$ ; mean age  $22.44 \pm 2.61$  years, aged 18–28 years) were randomized to either a six-session avatar-led intervention (Flexiquit;  $n=49$ ) or a wait-list control ( $n=35$ ). Primary outcomes included cessation status (7-day point prevalence) and number of cigarettes smoked per day; secondary outcomes were nicotine dependence, intention-to-quit smoking and self-efficacy, assessed at pre- and post-intervention, and only for Flexiquit at 6 months follow-up.

### Results

In intention-to-treat analysis more participants (OR=3.10; 95% CI: 0.92–10.41) in the treatment group (28.57%) versus the control group (11.43%) reported quitting smoking; however, the difference was not statistically significant ( $p=0.067$ ). There were statistically significant decreases in average number of cigarettes, nicotine dependence and increases in self-efficacy, and intention-to-quit smoking compared to controls.

Treatment gains in the Flexiquit group were maintained through the 6-month follow-up.

### Conclusions

An avatar-led digitized smoking cessation intervention based on ACT could increase the odds of quitting smoking. Findings suggest that a digitized program designed to engage young adults in smoking cessation may result in quitting smoking and has a high applicability potential especially among the hard-to-reach population of young adults.

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## Economic impact evaluation of tobacco control legislation in Georgia

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### Introduction

The Parliament of Georgia adopted comprehensive amendments (prohibition of smoking in all public closed facilities with few exemptions, total ban of tobacco advertisement, promotion and sponsorship, increase health warnings up to 65% of package area including pictorials, introduction of plain packaging, etc.) to the National Tobacco Control Legislation in May 2017. Most of the amendments entered into force from 1 May 2018. During negotiations of new regulations, the tobacco industry and their supporters declared that those changes in the tobacco control law will seriously damage hospitality, trade, advertisement, and other related business sectors.

### Objectives

The objective of the study was to measure economic impact of new tobacco control regulations on hospitality, trade, advertisement, and other related businesses.

### Methods

Collection and analysis of official state statistical data, desk review of existing reports, articles, studies, documents, and regulations.

### Results

The compliance level of new tobacco control regulations is around 98% for smoke-free places in the hospitality sector, 90% for display ban in points-of-sales and nearly 100% for outdoor Tobacco Advertising, Promotion and Sponsorship (TAPS) ban. Public support for prohibition of smoking in public places was high before law endorsement (79% in 2016) and increased further after its enactment, reaching 85% as of June 2018.

The study results show that new regulations have no negative impact on the hospitality sector as a whole. There are increasing numbers of facilities, employees and turnover of food and beverage, as well as hotel industries. Similarly, no negative impact has been observed in wholesale and retail trade, as well as advertisement sectors, when comparing indicators for the period before and after introduction of new regulations. Controversially, there is a growth trend in the numbers of advertisement companies.

### Conclusions

The economic impact assessment reveals that there is substantial progress from the standpoint of implementation of the new regulations for tobacco control and there are sufficient grounds to conclude that its impact is positive.

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## Tracing heated tobacco products in Bulgaria's mass media content

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The use of new heated tobacco products is cautiously monitored by the World Health Organization (WHO), and their use is subject to thorough scientific analysis. But in the meantime, the tobacco industry has harnessed enormous power to launch them

on the market.

Following upon accounts of Bulgarian journalists who cover tobacco issues, we investigate the tactics and methods by which the tobacco industry achieves its communication goals and launches its new products in Bulgaria.

The report covers the following issues of research interest:

- What legal and ethical norms regulate the coverage of the new heated tobacco products (NHTP) in the media; how and to what extent they differ from those existing for traditional tobacco products; how and to what extent they are applied in Bulgaria;
- What are the parameters of the media communication regarding NHTP and what part of it is promotional, i.e. presents them in a positive light;
- What tactics, techniques, tricks and methods the industry uses to launch NHTP in media communication;
- What is the participation of journalists and other media professionals; and
- What are the possible steps to counter the manipulative media communication that serves industrial marketing at the expense of the public and health interests of the people?

With this report we present the outcomes of: analytical review of regulatory and self-regulatory mechanisms, as well as other sources affecting the communication of tobacco companies and current practice in Bulgaria; quantitative and qualitative analysis of media content related to new heated tobacco products, based on detailed monitoring of online media content; and monitoring through participation and analysis of several key cases that provide answers to some of the questions asked.

### Conflicts of interest

This study was funded and supported by the Smoke-Free Life Coalition in Bulgaria, as part of a grant by The Union against Tuberculosis and Lung Disease.

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## Tobacco treatment delivery in cancer patients in Europe: The importance of quitting smoking after a cancer diagnosis

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### Background

Great progress has been recorded in cancer care during the past years. Although, it is well established that approximately 30% of cancer deaths are directly caused by smoking and there are evidence-based interventions, including behavioral therapy, available that can double or triple the rates of successful quitting. Unfortunately, these successful smoking cessation interventions are often neglected and are not incorporated in cancer treatment and recovery.

Continuing smoking after diagnosis affects the treatment outcomes, increases the mortality rates after treatment and the

recurrence of cancer while increases the risk of a new cancer. On the other hand, quitting smoking after the cancer diagnosis can improve the treatment outcomes, prolong survival, and reduce the risk for new cancers.

All the above suggest that tobacco treatment delivery in cancer patients from the early stages of diagnosis is a unique opportunity to improve the effectiveness of treatment and avoid new cancer development in the future.

#### Objectives

Within this symposium, we aim to address the importance of smoking cessation during or after cancer treatment, highlighting the feasibility, availability, cost-effectiveness and efficacy in cancer treatment success and cancer recovery.

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### Assessing the usability of a willingness-to-quit smoking questionnaire in a sample of active tobacco smokers in Kenya: A qualitative study

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#### Introduction

Tobacco products are perhaps the most accessible addictive substances. Their use contributes to numerous negative health outcomes both in the developed and developing world. Although indulging in smoking is easy, quitting has proven to be difficult.

#### Aim

To assess the usability of a willingness-to-quit questionnaire among active tobacco smokers in Kenya.

#### Methods

In the study, 25 active tobacco smokers and four healthcare providers (a medical specialist, a medical officer, a clinical officer, and a nursing officer) were interviewed. Participants were given the willingness-to-quit questionnaire and asked to fill it in and comment on its usability, ease of comprehension and its plausibility in the Kenyan healthcare system settings.

#### Results

From the interviews, most participants demonstrated the willingness to quit smoking especially due to health threats it posed. Similarly, they mentioned that the willingness-to-quit questionnaire triggered the intention to quit smoking. Also, the questionnaire effectively guided the interviews between the clinicians and the patients interested in attempting quitting smoking.

#### Conclusion

The study participants demonstrated the willingness to quit smoking, and acknowledged the willingness-to-quit questionnaire as a useful tool to trigger tobacco cessation conversation.

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### Psychological aspects of smoking among teenagers

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#### Introduction

Psychological stability is a model of the mutual influence of abilities and abilities of a person to hold emotional, cognitive processes, as well as activity processes in equilibrium states.

#### Material and Methods

Analysis of the psychological causes of smoking in teenagers.

#### Results and Discussion

The formation of psychological stability occurs in youth. The psychological causes of smoking are circumstances that do not depend on the desire of the subject to make some decisions. Acquaintance with the use of tobacco by teenagers occurs in early childhood when observing the behavior of elders. The main role in this is played by the family. Acceptance of smoking by the family forms the corresponding attitude of the child to smoking. This attitude organically enters into his consciousness, leaves an imprint on the emotionally-evaluative attitude to this past time and develops the corresponding behavior of the child in the future. The need for smoking is not a biological need; it appears due to lack of knowledge, misunderstanding, inadequate upbringing, and environmental influences. Due to the lack of upbringing, strong-willed qualities, and forbidden barriers, teenagers often have an unmotivated protest against 'everyone and everything in the world', which is a reason to start smoking.

Psychological stability is represented by acquired abilities, skills adapted to respond to prolonged stress, to maintain an even and calm mood. Psychological stability contributes to the development of the child and leads to the strengthening of his socially positive interests. At the same time, the psychological stability of adults affects the formation of the psychological stability of teens. Therefore, we can develop psychological resistance to smoking in teenagers, use of training programs will help prevent the emergence of an undesirable addiction.

#### Conclusion

So, if in the life of modern society, the problem of smoking has become acute, especially among young people, we must form and develop psychological resistance to smoking from childhood.

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### Moist snuff an emerging trend – Regulations

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#### Background

Almost 10 million Pakistanis use SLT. But moist Snuff is being excessively used throughout Pakistan. To identify manufacturing units, ingredients information, child labor and user's perceptions in the context of comprehensive tobacco control efforts.

#### Objectives

It has been observed that moist snuff is being excessively used in Islamabad (ICT) and Rawalpindi districts in the recent years comparatively five years before.

#### Aims

To spread awareness among the masses about its ill - effects and policy makers for regulations by enacting "Tobacco Laws (TVA-1958) "1979" and "2002"

#### Methods

Study conducted in districts Islamabad and Rawalpindi.

Observations, Qualitative and quantitative data were collected. A sample size of 20 was drawn from 74 manufacturing units determined through tabular method. The sample size of 200 respondents were interviewed, 10 from at each manufacturing units from 20 sampled manufacturing units list on first ten come basis

#### Results

- More than 200 brands are in the market
- 53% manufacturing business duration is 5 years
- Manufacturing cost is only 5 to 6 Rupees / 5 grams sachet & purchase price is 10.Rps
- Prevalence increased 31% within 2 to 5 years, followed 11.66% in 10 years
- 59% users are labour and small business
- 24% usage in local brand very low quality increases in mouth & stomach problems
- 75% are addicts as per addiction standard
- 63% users switch to snuff by self perception, clinical or psychological motives
- 25% manufacturing units are violation child labours
- 46% consider it an intoxicant; they get reliefs from anxiety, fatigue and stress.
- 22% are dual users

#### Conclusion

Government policies and self perception is cause of increase. Further evidence is needed to support policy development

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### Ending Big Tobacco's use of social media

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#### Introduction

Faced with growing restrictions on tobacco advertising, the world's largest tobacco companies have turned to social media and influencer marketing to skirt around advertising laws and market addictive products to young people around the world.

This session will provide an in-depth look at how tobacco companies use social media platforms like Facebook, Instagram and Twitter to reach billions of young people with ads for cigarettes, heated-cigarettes and e-cigarettes.

Evidence gathered by Tobacco-Free Kids over four years includes social media posts advertising tobacco online, interviews with influencers paid to advertise cigarettes, detailed social listening analytics on this strategy, and analysis of how the tactic has evolved over a four-year period.

#### Taking on Facebook, Instagram and other social media companies

Following more than a year of intense campaign efforts and media advocacy led by Tobacco-Free Kids, in late 2019, Facebook, Instagram and Snapchat announced that they will no longer allow influencer marketing of tobacco products on the platforms. We will discuss the key strategies and actions of this global campaign and how they led to the desired policy change from some of the world's largest tech companies. We will highlight both global and in-country strategies, with a particular focus on the regulatory rulings in the United Kingdom that helped provide momentum

to the campaign.

#### Looking forward: Turning policy into progress

Presenter will conclude with an analysis of the anticipated challenges and opportunities regarding the enforcement of policies that ban tobacco companies from advertising on social media.

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### Exposing Big Tobacco's rebranding: A déjà vu to fool policymakers and the public

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#### Introduction

In recent years multinational tobacco companies have launched aggressive global public relations strategies aimed at positioning themselves as credible partners in solutions to the global tobacco epidemic they have created in the first place.

This session will review and analyze the different components of tobacco companies' public relations tactics – including new product marketing, deceptive science, allies and front groups, lobbying, and mass media – to convince policymakers and other key stakeholders that they are concerned with health and are credible partners in policy dialogues.

The Campaign for Tobacco-Free Kids, through its international network of advocacy groups, has collected evidence illustrating the stark contrast between tobacco companies' misleading calls for a smoke-free future and their continued focus on marketing cigarettes in low- and middle-income countries, particularly to minors.

No matter how many times a snake sheds its skin, it is still a snake! Of all the major multinational tobacco companies, Philip Morris International (PMI) has been the most active when it comes to recreating its image. PMI's multipronged strategy includes two particularly visible initiatives: the 'unsmoke the future' campaign and the Foundation for a Smoke-Free World.

We will discuss these two initiatives to show that they are nothing more than the latest version of the same tactics that PMI has used for over 60 years to fool policymakers and the public about their true intentions: to continue profiting from tobacco addiction.

#### What's next?

The Campaign will use this opportunity to facilitate a discussion about how public health champions can successfully block PMI and other tobacco companies from interfering in public policy, despite their aggressive rebranding campaign. We will present a global campaign aimed at convincing schools of public health and other institutions to publicly reject partnerships or funding offers from the Foundation for a Smoke-Free World.

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### Tobacco Industry Interference Index FCTC Article 5.3 (Jordan case)

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The tobacco epidemic is on the rise in Jordan and defined as

a public health emergency by the United Nations. Prevalence of tobacco smoking among adult males is estimated at 70.2%. Additionally, the prevalence is also high among youths aged 13–15 years; Tobacco consumption also affects secondhand smokers, with 68% of adults and 62% of youth exposed to secondhand tobacco smoking.

Article 5.3 of the WHO FCTC calls on Parties to establish formal mechanisms to protect against tobacco industry influence with tobacco control policies. Jordan, despite being one of the first countries in the WHO Eastern Mediterranean Region to ratify the WHO FCTC has experienced continual interference from the tobacco industry. The tobacco industry has been pushing back against the implementation of tobacco control laws for decades. The objective of this report is to present a comprehensive summary and assessment of tobacco industry interference in Jordan, using the index developed by the Southeast Asia Tobacco Control Alliance. The index explores actions for the tobacco industry in 7 important areas (level of participation in policy development, CSR activities, forms of unnecessary interaction, preventive measurement, transparency, conflicts of interest, benefits to the tobacco industry).

### Conclusions and Recommendations

Since the ratification of the FCTC treaty in 2004, Jordan has shown evidence of some regulation of tobacco companies' interactions, however, the index score shows that the level of industry interference is high (79\100). When tobacco industry interference in Jordan is compared with other countries, the score is the same as Indonesia. No other country has a higher score, except for Japan.

The leading causes for the industry and their front groups' influence are the lack of laws or regulations that:

- Prohibit accepting support and sponsorship to various projects and causes, from tobacco industry through CSR activities.
- Provide transparency.
- Limit their interaction with governmental employees.
- Forces employees to disclose all meetings and necessary interactions with the industry.
- Prohibit all governmental representatives from accepting gifts/support from the industry.
- Prohibit tobacco industry from participation in policy level decisions.
- Prohibits government representatives from endorsing/supporting tobacco industry initiatives.

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### Comprehensive tobacco control strategy at city level: An experimental project

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#### Background

The French 'Programme National de Réduction du Tabagisme (PNRT) 2014-2019' recommended the development of regional/local tobacco-control strategies in addition to current national tobacco regulations. Indeed, local initiatives, in addition to

national measures, can increase tobacco control global efficiency. The French regional NGO 'Grand Est Sans Tabac' (GEST) decided to experiment with the construction and implementation of city-specific comprehensive tobacco-control strategies in north-east of France (Grand Est).

This project is funded by the Grand Est Regional Health Agency (ARS GE) and MILDECA.

#### Objectives

GEST goal is to develop together with each city authorities a specific and comprehensive local tobacco-control program (Programme Local de Lutte contre le Tabac, PLLT), based on current French laws, the Programme Régional de Lutte contre le Tabac (PRLT), and FCTC provisions. It will include, youth smoking prevention, help for tobacco smoking cessation, and tobacco use denormalization through current laws implementation monitoring, developing new tobacco-free public spaces, diffusing information about tobacco use issues, protecting local environment.

#### Methods

Three volunteer cities of different sizes have been chosen: Joinville, roughly 3000 inhabitants, Thionville 40000, and Mulhouse 110000. A tobacco-control committee has been set up in each city including among others: members of local authorities, education, healthcare, and social professionals etc. These committees will decide on the suitable actions to implement for their own city.

The first concrete action will be the implementation of smoke-free city halls, in order for the local authorities to be exemplary. Each city will create a specific committee composed of city employees and politicians in order to set up the smoke-free city hall policy, including help for smoking cessation.

#### Conclusions

According to the results of this project, guidelines will be proposed to other cities willing to implement such a comprehensive local tobacco-control program.

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### The price elasticity of demand for heated tobacco products

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Heated Tobacco Products (HTPs) are a new form of tobacco products that heat raw tobacco sticks to generate an aerosol containing tobacco flavor, nicotine, and other chemicals. In 2019, the IQOS HTP, manufactured by Phillip Morris International, have been approved by the US Food and Drug Administration for sale in the US market. Worldwide, HTPs have rapidly gained market shares over traditional cigarettes in several countries. In order to assess how prices and taxes may impact the demand for HTPs and the relationship between HTPs and traditional cigarettes, we construct a unique global panel database for the sales, prices, and excise taxes of HTPs and cigarettes over 2014–

2018. We estimate the model with reduced-form regressions to study the combined demands for cigarettes and HTP in response to taxes and prices. We find that the demand for HTP packs is highly responsive to price changes, especially changes induced by excise tax policy. HTP demand also appears to be much more responsive to price changes than cigarette demand confirming that cigarette consumption is inelastic. We also find evidence that HTPs and cigarettes are complements rather than substitutes, but only in one direction: cigarettes or HTP prices are inversely related to HTP consumption, but the decrease in either price does not significantly affect cigarettes demand.

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## Implementation of Article 6 of the WHO Framework Convention on Tobacco Control in a tobacco dependent economy: Challenges and the way forward

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### Background

Tobacco taxation and price increases are regarded as the most effective measures for tobacco control. The World Health Organization's Framework Convention on Tobacco Control (FCTC) has recognized the importance of these measures and calls on governments through its Article 6 to implement tax and price measures to reduce tobacco use. Despite the proven effectiveness of these measures, the progress of implementation of the FCTC Article 6 is far from optimal compared to the other tobacco control policies. The situation is worse in tobacco-dependent economies like Pakistan.

### Objective

This study was carried out to identify gaps in the current Tobacco Taxation and Pricing Policies (TTPP) in Pakistan against the WHO FCTC requirements and discusses the challenges in the implementation of better TTPP.

### Method

We analyzed official policy documents to assess the TTPP against the FCTC guidelines for the implementation of Article 6 of the FCTC. We used the official tax and pricing data from Pakistan Bureau of Statistics and the Federal Board of Revenues to measure the impact of TTPP on tobacco affordability in the country.

### Results

Pakistan taxes raw tobacco, cigarettes and cigarillos, cigars and cheroots. However, the existing TTPP do not meet the WHO FCTC requirements, including the uniform tax level, simple tax structure, and 70% share of excise tax in the price of a product's pack. There are multiple issues in tobacco tax administration as well. This has translated into highly affordable tobacco products in the country.

### Conclusions

Pakistan does not have a clear strategy on using tobacco taxation and prices as a public health tool in the country. Existing TTPP face dual issues of flawed structure and poor administration translating into highly affordable tobacco products and low revenues in the country. There is a need to understand how the political economy

of the country is contributing to these challenges.

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## The assignment of tobacco control to the NAAC progress made and future pursuits

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### Background

The Cyprus National Addictions Authority (NAAC) is the supreme coordinating body concerning licit and illicit addictive substances and pathological gambling in Cyprus. The assignment of tobacco control to the NAAC was made at 2017, with the legislation's amendment governing the former Anti-Drug Council, currently NAAC.

### Objectives

The main activities of the NAAC for tobacco control concern:

1. The amendment of the current national legislation by introducing more restrictions for smoking.
2. The effective implementation of the national legislation through the active involvement of all stakeholders.
3. The implementation of preventive actions in the general population and other targeted groups.
4. The upgrade of the current tobacco cessation programmes and licensing of other programmes, that will create an effective network on tobacco cessation.

### Action Taken

The NAAC upon taking the responsibility of the coordination for tobacco control proceeded in the following actions:

1. The 1st National Action Plan on Tobacco Control 2018–2020 was prepared, implemented and monitored.
2. The National Advisory Committee for Tobacco Control was reconstituted, under NAAC's presidency, with Subcommittees on Control, Treatment and Research.
3. Printed and online informational material is produced and distributed.
4. Prevention Campaigns with the preparation of video and audio clips, on mass media and on the web are conducted on 31 May.
5. During the 1st Scientific Conference of the NAAC, under the title 'Science Behind Addictions', on 11–12 September 2019, a presentations panel concerning tobacco was organized.
6. The 1st Smoking Cessation Training Workshop was organized on 10 December 2018 in collaboration with the Medical School, University of Cyprus.
7. The NAAC chaired a discussion panel in the 1st Interdisciplinary Conference of the Cyprus Institute of Respiratory Diseases on 12 December 2019.

### Conclusions

The NAAC recognizes that there is still a lot to be done concerning tobacco control in Cyprus. A series of actions is taken for the fulfilment of the objectives described.

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## Tobacco use among adults: A 5-year assessment of the national program for smoking reduction

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### Background

In France, since 2014, the fight against smoking has been enhanced by the implementation of national programs. Every year, 75000 deaths are estimated to be attributed to smoking in France.

### Objectives

This study aims to estimate the smoking rate in 2019 and the trends over the past 5 years since the implementation of the national programs.

### Methods

Data come from the Santé publique France Health Barometer, a national telephone survey with random sampling. In the 2014 and 2019 editions, 15186 and 9611 adults were asked about their tobacco consumption, respectively. The 2019 data are currently being analyzed and will be available for the congress; the 2018 results will be updated with 2019 data.

### Results

In 2018, 32.0% of those aged 18–75 years reported being smokers (35.3% men and 28.9% women). Daily smoking rate was 25.4% (28.2% men and 22.9% women). Since 2014, smoking rate is down by 2.3 points and by 3.1 points for daily smoking rate. The prevalence of daily smoking is decreasing among men and women separately, and among all age groups from 18–54 years.

For the first time since 2000, the prevalence of daily smoking has decreased among the most disadvantaged smokers. Social inequalities are no longer increasing but remain pronounced, with a 12-point difference in daily smoking rate between unemployed and working people, and between lowest and highest incomes.

### Conclusions

Regulatory and prevention measures introduced over 5 years are likely to have contributed to the unprecedented scale of decline in smoking prevalence. But smoking prevalence remains high compared to United Kingdom, Australia, and United States. These results support strong anti-smoking actions and reinforcing measures able to reduce the still pronounced social inequalities in smoking.

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## Smokers' perception of cigarette packaging in France before and after the implementation of plain packaging

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### Background

The new mandatory packaging for tobacco products (plain pack with larger graphic health warnings) was implemented in France on 1 January 2017.

### Objectives

This study examines the impact of this new packaging on smokers'

perceptions of their pack by comparing perceptions before 2016 and after 2017 the implementation.

### Methods

Data come from the Santé publique France Health Barometer, a national telephone survey with random sampling. In the 2016 and 2017 editions, 15216 and 25319 adults were asked about their tobacco consumption, respectively. Two questions were asked to smokers, identical in 2016 and 2017, on the appreciation of the appearance of the pack and on the embarrassment to take out the pack because of its appearance.

### Results

The share of smokers stating that they do enjoy the look of their pack was divided by 3 between 2016 (53%) and 2017 (16%).

Smokers stating that they are embarrassed taking out their pack in plain sight because of its look were twice as numerous in 2017 (12%) as in 2016 (6%).

A reduce appeal of cigarette pack was observed among the youths (18–25 years) and they are now as few as their elders that enjoy the look of their pack.

### Conclusions

The introduction of plain packaging has certainly had an impact on smokers' perceptions and, within a strong tobacco control context, probably contributed to denormalising smoking in France.

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## Denormalization of tobacco, a reality for all?: The Belgian case

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### Background

In Belgium, much of the reduction in the prevalence of tobacco use can be attributed to long-term policies, most of them adopted during the last thirty years at the federal and regional levels such as:

#### Legal measures

- smoking ban in schools (year), workplace (year), indoor public place (year), a car when a minor is present (2019)
- advertising ban, neutral packaging
- gradual increase in taxation

#### Support of tobacco-cessation services

- through a multifactor approach including systematic healthcare professional advice and participation of specialists through assistance centers
- adoption of health promotion policies, encouraging protective factors related to addiction, through the improvement of the skills of young people and their families.

### Results

A social process to denormalise tobacco use has been implemented and produced definite results. For instance, in the region of Wallonia, smoking prevalence is currently at 19% (daily smokers) while in the northern part of the country, the prevalence is even less at 13%.

However, progress is not equally distributed among economic groups. In the lowest income group (greater than 500 and less than 1380€ per month), smoking prevalence remains unchanged

around 30% from 1997 to 2018, whereas it has fallen substantially from 21.6% to 13.4%, in the highest income group (>3800€ per month).

The prevalence gap between the lowest and the highest income groups has, in fact, almost doubled in twenty years, from 8% to 18%.

### Conclusions

Despite a long process of reflection, often based on evidence, supported by politicians and public opinion, measures taken to lower tobacco smoking failed to reach the low socioeconomic status group and increased health inequalities. Studies and intervention should focus on better ways to promote health among the poorest citizens and lower the tobacco consumption in this specific group.

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## Brakes on the expansion of heating tobacco in France

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### Introduction

Tobacco industry develops new products claiming to reduce the consumption of industrial cigarettes. Three brands of heated tobacco are registered in France, but only IQOS is fully available in France (since end 2017).

### Methods

We estimated the diffusion of this product and analyzed the factors that slow down the expansion of this product.

### Results

The official data available pooled pipe tobacco, shisha tobacco and heated tobacco. This category concerns 0.65% of tobacco sales in January/February 2018 and 1.3% in January/February 2020.

The main obstacles to the expansion of heated tobacco in France are:

- The monopoly of tobaccoists to sell tobacco in France. Tobaccoists have an obligation to be multi-brand, prohibiting shops dedicated to a single brand as in some countries.
- The general advertising ban, which is difficult to control because the industry does not promote tobacco mini-cigarettes but equipment and often tries to circumvent the tobacco advertising ban.
- In France, heated tobacco is registered by the industry as 'other smoking tobacco' with taxation close to 75% for mini-cigarettes sold for €8.10. This taxation is not very far from the tax of cigarettes, which is close to 81%.
- In France, the scientific community has never confused heated tobacco (an addictive tobacco product that delivers peaks in nicotine that reinforce dependence) with the e-cigarette (which is not a tobacco product and delivers pharmaceutical grade nicotine on a regular basis and is, therefore, more an exciting product than a product of tobacco dependence reinforcement).

### Conclusion

Heated tobacco is a harmful tobacco product which, like traditional cigarettes, must be controlled with a view to reducing its consumption.

Monitoring must be continued on this product classified by the tobacco industry itself in France as 'other smoking tobacco' so that it does not slow the overall decline in smoking until its end.

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## Changes in breathing during exposure to SHS in outside areas of pubs in patients with asthma and COPD in three EU countries

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### Background

SHS exposure causes several diseases. Most countries who have banned smoking in pubs still allow smoking in outside areas, if the space meets certain requirements. There is no evidence that such exposure is harmless, but there are no studies that document adverse health effects. SHS effects on health took many years to document. Ireland, Spain and the Czech Republic have comprehensive smoke-free laws, which have been in place for varying lengths of time.

### Objectives

To measure effects on breathing of spending at least 1 hour in an outside area of a pub where smoking is allowed.

### Methods

We monitored the effects on breathing rate (BR) in 60 patients with airway diseases from these three EU countries using personal monitors for continuous breath-by-breath recording and simultaneous particle exposure monitoring during a 24-hour period with a visit to an outside area in a pub of at least one hour's duration.

### Results

Significant breathing rate changes were seen in 58 of 61 patients. Increases and decreases in breathing rates occurred. Varying from 20.83 (SD=1.28) in asthma to 22.28 (SD=1.94) in COPD at rest outside SHS area to 21.72 (SD=1.65) and 22.52 (SD=2.12) at rest in SHS areas in 28 patients (p=0.00). In 29 other patients breathing rates decreased from 21.23 (SD=2.34) in asthma patients at rest to 19.58 (SD=2.38) during SHS exposure and in COPD from 22.55 (SD=2.40) at rest outside an SHS area to 21.03 (SD=3.00) during SHS exposure (p=0.00).

### Conclusions

Exposure to SHS in areas outside pubs where smoking is allowed alters the breathing rates of patients with asthma and COPD. The change can be an increase or a decrease, which may be moderated by the chemical drive to breathing and seems to be influenced by disease and gender.

### Funding

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 681040.

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Table 1. Breathing rates outside and during SHS exposure (Clancy et al.)

Breathing rates outside and during SHS Exposure for 28 patients with increased rates					
Variable	Outside Br Mean (SD)	During Br Mean (SD)	Mean difference (95% CI)	t (df)	p
<b>Asthma</b> (n=17)	20.83 (1.28)	21.72 (1.65)	-0.90 (-1.30, -0.49)	-4.71 (16)	0.00
Male (n=5)	20.45 (1.50)	21.0 (1.83)	-0.53 (-1.21, 0.14)	-2.20 (4)	0.09
Female (n=12)	21.0 (1.21)	22.0 (1.53)	-1.05 (-1.58,-0.51)	-4.32 (11)	0.00
<b>COPD</b> (n=11)	22.48 (1.94)	24.52 (2.15)	-2.05 (-2.93, -1.19)	-5.26 (10)	0.00
Male (n= 4)	20.84 (1.64)	23.62 (2.46)	-2.78 (-5.19, -0.38)	-3.70 (3)	0.03
Female (N=7)	23.40 (1.47)	25.03 (2.00)	-1.64 (-2.62, -0.66)	-4.11 (6)	0.00
Breathing rates outside and during SHS Exposure period for 29 patients with decreased rates					
Variable	Outside Br Mean (SD)	During Br Mean (SD)	Mean difference (95% CI)	t (df)	p
<b>Asthma</b> (n=13)	21.23 (2.34)	19.58 (2.38)	1.65 (0.74, 2.55)	3.96 (12)	0.00
Male (n=6)	21.07 (2.60)	18.63 (2.03)	2.45 (0.59, 4.31)	3.40 (5)	0.02
Female (n=7)	21.37 (2.33)	20.40 (2.49)	0.96 (0.19, 1.74)	3.03 (6)	0.02
<b>COPD</b> (n=16)	22.55 (2.40)	21.03 (3.00)	1.51 (0.76, 2.27)	4.28 (15)	0.00
Male (n=9)	22.64 (1.80)	21.26 (2.53)	1.38 (0.28, 2.48)	2.90 (8)	0.02
Female (n=7)	22.42 (3.18)	20.74 (3.70)	1.69 (0.31, 3.10)	3.00 (6)	0.02

## Tobacco and the coronavirus

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A comparison of the data available until 1 May 2020 shows that during its first six months the COVID-19 pandemic resulted in much less human life lost than smoking – both globally and in Bulgaria. However, the reactions in society, state institutions and healthcare to the two threats are surprisingly disproportionate.

The authors compare tobacco smoking to COVID-19 terminologically and in terms of mortality figures, policy responses, and enforcement. This happened in conditions of scarce scientific knowledge about COVID-19, and in conditions of lack of scientific consensus in various areas.

We observe that, despite decades of evidence and international consensus on the deadly effects of smoking, the response is much more gradual, hesitant, of warning and advisory – both globally and on a national level in the case of Bulgaria.

Conflicts of interest

BlueLink is a member of the Smoke-Free Life Coalition in Bulgaria and has received financial and technical support from it, for the implementation of this research.

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## How does the scientific literature approach Novel Coronavirus Disease (COVID-19) and tobacco use in pandemic days?

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### Introduction

Since the early days of Novel Coronavirus Disease (COVID-19) pandemic, tobacco use and COVID-19 relationship has been one of the major concerns of the scientific research. Nevertheless, there are still many unknown issues. In this paper, it was aimed to investigate how “recent” scientific literature approached to “COVID-19” and “tobacco use”.

### Materials and Method

Keywords were given in (Novel Coronavirus Disease) OR (COVID-19) AND ((tobacco smoke) OR (tobacco) OR (smoking)) configuration and 161 manuscripts were accessed via online Pubmed search on July 14, 2020 (6pm, Turkish Local Time). Among 161, 16 articles were not specifically on COVID-19, 12 were not on tobacco. Finally, 133 articles were included in the study.

### Findings

The first article was published in March. The number of the published articles increased in the following months (n=53, June 2020). Impact factors of the journals in which the articles were published varied between 0.240 and 74.699. Among 133 articles, 64 were in “original article” category (48.1%). “Letter to the editor (10.5%)” and “review article (10.5%)” were the second highest categories. Tobacco use as a general concept was used in the articles. However, cigarette smoke was the most frequent tobacco product which the articles investigated (n=99). In 106 articles, COVID-19 and tobacco use relationship were emphasized. Active tobacco use was the concern in 118 articles (88.7%) whereas only 13 articles (9.8%) issued passive smoking. Chronic diseases were issued in 81 articles (60.9%). Tobacco control measurements were recommended in only 27 articles (20.3%). The general recommendations of the articles were basically on quitting. Tobacco industry struggle was recommended in only two articles.



**Conclusion**

Articles investigated in this paper issued different aspects of tobacco use and COVID-19 relationship. Nevertheless, tobacco control measures were not sufficiently tackled in a comprehensive approach in the manuscripts.

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**Supply and side reduction measures**

### The use of Internet and social media for illicit trade in tobacco products in Europe: A brief review of scientific literature, law enforcement strategy documents and commercial research reports

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**Background**

The Protocol to Eliminate Illicit Trade in Tobacco Products also addresses the new challenges in preventing the illicit tobacco trade. A range of scientific studies and commercial reports have indicated on increasing exploitation of internet, on-line delivery service and social media for the illicit tobacco trade.

**Objective**

To evaluate the current status of knowledge on the use of internet and social media for illicit tobacco trade and the approach to combat illicit trade.

**Materials and Methods**

A brief review was conducted of over 80 existing academic papers, government policy documents, law enforcement strategy documents and commercial research reports on organized crime and the illicit tobacco trade in Europe. The search for the above documents was done on Google Scholar, Worldwide Science, Medline, PubMed and on the Directory of the Open Access Journals, as well as websites of international organizations combating illicit tobacco trade.

**Results**

Our research demonstrates that the growth of e-commerce has had a significant and increasing impact on the illicit tobacco trade. Illegal tobacco products are now readily available to purchase with little effort and minimal risk through online marketplaces, cryptomarkets, purpose-built hosted websites, social media platforms or even dark internet. When using internet tools, a small number of sellers are responsible for a large proportion of all illicit cross-border sales without legal control.

**Conclusions**

Most countries are not well prepared in legal, technical and administrative terms to combat illegal tobacco trade through the internet and social media and need to undertake comprehensive and collaborative counteractions by governments, commercial companies, other stakeholders and organized groups of internet

and social media users to combat this phenomenon.

**Funding**

Individual grant for academic researchers offered within the World Health Organization pilot research project on raising awareness about illicit tobacco trade in the European Union and promoting the ratification of the Protocol to Eliminate Illicit Trade in Tobacco Products.

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### Debate on the decline in illicit tobacco trade in Bulgaria: A review of articles published in country media between 2010 and 2019

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**Background**

The Bulgarian government undertook a series of tobacco control measures and policies to tackle illicit trade in tobacco products, which led to a record decline in illegal cigarette sales.

**Objective**

To raise awareness of research, tobacco control and public health community on a sharp decline in illicit tobacco trade in Bulgaria and to understand its potential causes.

**Materials and Methods**

The qualitative analysis was based on a review of 87 Bulgarian media materials published between 2010 and 2019. These articles were identified through a related keyword search made by special media software or on the official websites of electronic media in Bulgaria.

**Results**

Only a few Bulgarian media deal comprehensively with the topic of the illicit tobacco trade and try to understand the sharp decline in the business in Bulgaria after 2014. However, these media reports are mostly based on the reports prepared by government-related institutions or on the reports funded by the tobacco industry. These reports indicate that major reasons of the decline include: an effective collaboration of various in-country and international stakeholders after the accession of Bulgaria to the EU, reduction in corruption rates in Bulgaria, stronger control on the government tobacco industry and implementing the legal and economic measures to eliminate significant losses in state taxes in Bulgaria.

**Conclusions**

Current analysis shows that comprehensive, collaborative efforts can be effective in decreasing the illicit tobacco trade at the country level. However, scientific evaluation of the sharp decline in illicit tobacco trade in Bulgaria needs quantitative analysis based on comprehensive data sources, a comprehensive research approach and activities made by independent research teams.

**Funding**

Individual grant for academic researchers offered within the World Health Organization pilot research project on raising

awareness about illicit tobacco trade in the European Union and promoting the ratification of the Protocol to Eliminate Illicit Trade in Tobacco Products.

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## Mechanisms for illicit trade control in view of public health: The case of Bosnia and Herzegovina

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### Background

International good practice shows that tobacco taxes are the single most important element of effective tobacco control intervention. However, in many countries excise policy is still facing many challenges related to the tobacco industry's attempt to control tobacco sales prices.

### Objectives

To investigate current situation of tobacco taxation measures in Bosnia and Herzegovina and define recommendations for more effective tobacco control measures aimed to eliminate the influence of the tobacco industry.

### Methods

Overview on current trends of tobacco taxation in Bosnia and Herzegovina in line with good international practice. Descriptive analysis of available data sources on tobacco and economy and mechanisms for illicit trade control in Bosnia and Herzegovina, past, present and future actions.

### Results

Current measures in illicit trade control in BiH are not effective and show an urgent need for more effective involvement of relevant institutions significant for tobacco control.

### Conclusions

More actions should be taken in the strengthening of tax administration system, control over the supply chain, penalties, governance and education of the public on benefits from elimination of illicit trade in BiH.

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## A strategic framework for reducing demand for and supply of illicit tobacco within broader tobacco control programmes

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### Background

High tobacco prices reduce smoking prevalence. Illicit tobacco undermines price policies, particularly among youth, and keeps smokers addicted. Furthermore, tobacco companies have a history of smuggling. A UK anti-tobacco smuggling strategy was launched in 2000. A sub-national plan led by Fresh was launched in 2009.

### Objectives

To reduce supply and demand, Fresh developed a strategic

framework within broader tobacco control across North-East England, which included: developing partnerships; engaging frontline staff; gathering/developing intelligence; delivering enforcement; delivering communications; engaging retailers; protecting policies from tobacco companies; and assessing progress.

### Methods

Methods include health and enforcement partnerships, developing insight-led, demand-reduction campaigns; developing key message documents; producing enforcement guidance on Article 5.3; tracking public opinion and market share. See [www.keep-it-out.co.uk](http://www.keep-it-out.co.uk) and [www.illicit-tobacco.co.uk](http://www.illicit-tobacco.co.uk).

### Results

North-East England illicit market decreased from 15% (2009) to 10% (2019). Nationally, the market has halved since 2000.

### Conclusions

Reducing demand and supply needs to take a strategic approach and be framed within broader tobacco control.

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## Securing the tobacco supply chain: A case study in Poland

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### Background

The threat of tobacco tax evasion and avoidance is the most commonly mentioned argument against tax hikes. Increasingly, the focus of legislators is on leaks in the tobacco crop supply chain, in which raw or cured tobacco that was never taxed finds its way to smokers who roll their cigarettes, or perhaps worse, is being sold for the purposes of manufacturing illicit cigarettes. Few guidelines for those policymakers exist. This report offers a detailed description of the process undertaken by Poland to secure the tobacco supply chain.

### Methods

To study the process undertaken by Poland to secure the tobacco supply chain, we analyzed the 2013–2018 legislation on tobacco supply, and interviewed stakeholders in the Government of Poland.

### Results

Farmers and intermediary entities can trade tobacco only if registered with the government. Farmers are required to report the size of the field and the weight of their crops to the state authorities. Each purchase within the supply chain is also reported by both the seller and the buyer for cross-validation. Evidence suggests that this cross-validation of records has prevented manipulation within the system, while the mere threat of hefty fines related to an excise tax law violation and/or the administrative burden associated with becoming an excise taxpayer (had the violation been prosecuted), significantly secured the leaks in the tobacco supply chain, especially at its early parts.

### Conclusion

The experience of Poland demonstrates that securing the tobacco supply chain is complicated but also tractable. We believe that

this case is widely applicable to other countries.

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### Quarantining illicit trade: Tobacco control through the lens of COVID-19

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The lockdown measures during the COVID-19 pandemic distorted international trade. EU retailers benefited from short-term blocks to illicit cross-border movements, but national measures elsewhere had unexpected side effects, creating new opportunities for tax fraud. The crisis highlights the impact of the parallel trade on essential public health policies that depend on taxes to reduce smoking incidence. Secure tax stamps have proven their worth in protecting tax revenues and combatting fraud. Strong regulatory measures are vital, including tax stamps and full implementation of the track and trace provisions of the WHO Protocol to Eliminate Illicit Trade in Tobacco Products, which aims to provide supply chain transparency and identify weak links enforcement authorities can close.

The measures in the WHO Protocol are binding, but there is not yet agreement among the Parties on the technical implementation detail, including the working of the GISFP. The International Tax Stamp Association, a non-profit association independent of the tobacco industry, published a blueprint to guide system definition. Tobacco track and trace is complex, but ITSA members have deep expertise based on real-life experiences. The blueprint explains ten best practices, setting out the limited number of tasks that can be undertaken by the tobacco industry itself, whilst respecting the Protocol. End-to-end control across borders is needed, without unnecessary modularisation that can be exploited by the unscrupulous, particularly in developing countries where resources are lacking.

Countries now need to maximise revenue mobilisation to finance the costs of the pandemic and enable recovery – by reducing tax fraud losses rather than creating new taxes. Tackling tobacco tax fraud is, therefore, crucial.

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### Reduction of the price differential between roll-your-own tobacco and cigarettes is associated with a decrease in the fraction of smoked roll-your-own tobacco in France since 2016

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#### Background

The roll-your-own cigarette (RYO) releases more toxins in smoking machines and is more harmful than industrial cigarettes. Until 1991 RYO concerned only 3% of the market of industrial cigarettes.

In 1991 the first French anti-smoking law was voted (Evin law).

The percentage of RYO use increased from 3% to 14% in 14 years, with an increase in the price of cigarettes. At the end of 2003, one had to spend € 2.52 to buy fine-cut tobacco to roll 20 cigarettes (0.7 g of tobacco per cigarette), while a pack of 20 industrial cigarettes cost € 5. The 2004–2020 evolution is analyzed.

#### Methods

The OFDT long series reporting monthly deliveries and prices for cigarettes and roll-your-own tobacco in France has been analyzed.

#### Results

From 2004 to 2016, the cost of roll-your-own tobacco and cigarettes increased by successive small amounts for the two products, but leaving the price difference stagnating at €2.47 for 20 cigarettes. During this period, the proportion of RYO among cigarettes smoked had increased from 14.6% to 23.5%. Since 2016, for public health purposes, the increase in tobacco taxes is meant to reduce the tax differential between RYO and industrial cigarettes. The price difference between fine-cut tobacco required to make 20 cigarettes and a pack of 20 industrial cigarettes decreased from €2.47 to €1.47. In the same period, the proportion of RYO began to decrease in cigarette smokers (from 24% to 21.8%).

#### Conclusions

Progressive reduction until zero of the price differential between industrial cigarettes and roll-your-own tobacco is essential. Allowing this price difference to stagnate increases the use of RYO. Fourteen grams of RYO (to make 20 cigarettes) should be sold at the same price as a pack of industrial cigarettes in all European countries.

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## Protection of the environment and the health of persons

### Children's rights are part of our DNA: The right to development and Smoke-Free Generation

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The right to grow up smoke-free is defended by various articles of the UN Convention on the Rights of the Child, where the right to health (art. 24 CRC) and the right to life, survival and development (art. 6 CRC) are essential. Article 6 UNCRC goes further than the right to life and survival of other human rights treaties because it includes the child's right to development. The article adds another new element and explicitly refers to the positive obligation of parties to the Convention to ensure the development of the child. General Comment 16 states that childhood is a unique period of development where unsafe products and environmental hazards may have life-long, irreversible and even transgenerational consequences.

The bodies of children and youngsters are still developing, which makes them among the most vulnerable members of the population. They are extra vulnerable to the harmful substances in cigarette smoke, and studies have shown the harmful effects of regularly active smoking by youngsters. At least 250 of the 7000 chemicals in tobacco smoke are known to be very harmful

to health, and more than 70 of these substances are known to cause cancer. Cigarette smoking during pregnancy is responsible, among other things, for an increased risk of low birthweight in children, premature birth and sudden death syndrome, and has an important influence on lung development and increases the risk of congenital disabilities of various organs. Children who passively smoke have a reduced lung function and an increased risk of respiratory infections, asthma, behavioral problems and learning difficulties. The chemicals from cigarette smoke settle on surfaces in the home and on dust. Children can swallow or absorb these chemicals or 'thirdhand smoke' through skin contact with the floor and furniture. Tobacco smoke chemicals can remain on surfaces for months. Smoking teens have less healthy airways and more cardiovascular diseases. Adolescence is also an experimenting period for teenagers, including tobacco, with the risk of becoming addicted to nicotine in the background of an industry looking for 'replacement smokers'.

One may conclude that this 'unsafe' consumer product impedes their right to development of Article 6 UNCRC of becoming a healthy adult. The Belgian Alliance for a Smoke-Free Society, therefore, puts children's rights at the basis of both its advocacy activities and campaigns to the public at large. This way, it wants to ensure that present and future generations can grow up smoke-free, respecting their right to development to healthy adults.

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### Human Rights in tobacco control: An instrument for legislation, jurisprudence and awareness campaigns

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Human Rights and tobacco control go hand in hand. Human Rights can be invoked, in the parliament, in a court of law or even when it comes to awareness campaigns.

'Kom op tegen Kanker' is a Flemish NGO fighting cancer and tobacco. Throughout the years, we have been advocating for a better cancer policy and better anti-tobacco regulation. We won a case before the constitutional court against the Belgian government when it wanted to introduce a smoking ban in the hospitality industry but still allowed smoking in smaller pubs. In this case, Human Rights were of great importance.

Together with other major stakeholders, we have successfully lobbied for a better legal framework in the field of tobacco control. The parliament refers to human and children's rights when developing new laws and has taken initiatives to reinforce tobacco control by banning smoking in cars, banning the sale of tobacco to minors, introducing a total advertising ban and introducing plain packaging.

We also try to create awareness for the right to health, by means of awareness campaigns, focusing on creating smoke-free indoor as well as outdoor environments. We also encourage smokers to smoke outside, out of the sight of children. Over a period of 10 years, we were partly responsible for the drop of more than 68% in the number of children exposed to smoke every day at home. Our awareness campaigns also help in creating political support for our tobacco control proposals. When it comes to the balance

between the right to smoke and the right to health, 'Kom op tegen Kanker' is convinced that this balance can be shifted with the right approach. Civil society and tobacco control organisations have an important role in this.

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### The Invisible Dead: Tobacco, Mental Health and Human Rights

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#### Background

People with severe mental health disorders are more likely to smoke, often smoke more and die at much higher rates from tobacco-related diseases than the general population. The reasons for this are complex and under-researched.

Due to the character of their diseases and the attached stigmatization, persons with mental health disorders have difficulties to raise their voice and get heard in societal discourses. They are (made) invisible, and as a result, their increased death rates remain disregarded.

#### Objectives

Raise awareness of excess mortality among people with mental health disorders.

Demonstrate human rights principles.

#### Methods

The presentation uses peer-reviewed literature on the link between tobacco-related diseases and mental health disorders and analyses this information from the perspective of the Convention on the Rights of Persons with Disabilities and other human rights treaties.

#### Results

There is no systematic data collection about tobacco-related excess mortality among people with severe mental health disorders. However, research estimates that about half of deaths among people affected by schizophrenia, bipolar disorder or depression are caused by tobacco-related diseases. The reasons for this are complex and link to tobacco prevention (tobacco advertising targeting or increased susceptibility), lack of regulatory measures (e.g. smoke-free mental health institutions), cessation (e.g. tobacco dependence seen by health professionals as less urgent compared to other symptoms and therefore not being treated), comorbidities (e.g. alcoholism) as well as delayed diagnosis and treatment of cancer and other diseases.

#### Conclusions

The above mentioned inequalities ultimately translate to higher morbidity and mortality rates in marginalized groups and a government's failure to take action to address them is a clear violation of the non-discrimination principle and the human rights to health and life. More has to be done to collect data and to tailor tobacco control policies and cessation programmes to reach people with severe mental health disorders.

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## Smoking habit among adults visiting the emergency room (ER) for an asthma exacerbation

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### Introduction

Asthma exacerbation is a major cause of Emergency Room (ER) visits. Asthma patients who smoke have more frequent ER visits and hospitalizations for an exacerbation than asthma patients who do not smoke. The objective of the study is to determine the prevalence of smoking exposure in adults with an asthma exacerbation visiting ER.

### Methods

Patients with an asthma exacerbation at the ER from August to November 2019 where assessed for a definite asthma diagnosis at the outpatient clinic. Exposure to smoking was assessed.

### Results

A total of 81 patients were enrolled, with 36.2% having an asthma diagnosis for the first time. The majority of patients had mild asthma. Hospital admission occurred in 13.3% of patients, 43% of the enrolled asthmatic patients were current smokers with a median of 19 pack-years (range 3–80), and median 20 cigarettes per day (range 1–50) while 28.5 % were former smokers, and 28.5% never smokers. Among the group of asthmatics with first diagnosis, smokers were 46%. The percentage of smokers in different stages were: Stage I-II (42.8%), Stage III (50%), and Stage IV-V (50%). Of the non-smokers, 25.5% were exposed to passive smoking.

### Conclusion

Although it is generally known that smoking is affecting asthma severity and exacerbation rates, smoking exposure was high among adults visiting ER for an asthma attack regardless of the severity stage of asthma. Smoking exposure is a modifiable risk factor and ER offers an opportunity to identify patients with asthma who could benefit from outpatients preventive care.

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## Impacts of cigarette-butt pollution on human, animal, vegetal and environmental health: A systematic review

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### Background

Worldwide, 5000 billion cigarette butts, containing more than 4000 toxic chemicals, are estimated to be each year littered. If the deleterious health impacts of smoking are well known, the roles of cigarette butts require clarification. Indeed, this pollution could have repercussions on health and the environment.

### Objectives

We aimed to review all main impacts of cigarette-butt pollution on human, animal, vegetal and environmental health.

### Methods

All electronic databases (from 1948 to March 2020) were searched with a combination of keywords related to cigarette butts and to human, animal, vegetal or environmental health.

Two independent reviewers selected studies of any design and in any language, using original data and investigating the associations between cigarette butts and human, animal, vegetal or environmental health. The selection was performed from abstracts and titles and pursued by reviewing and extracting data from the full text of potentially eligible studies.

### Results

After a detailed screening of 98 entire studies, 63 studies were identified. In some studies, nicotine poisoning or occlusive syndrome were described in young children and domestic animals. Other studies showed also river, ocean or coastal pollution by metals, polycyclic aromatic hydrocarbons or nanoparticles with toxicities on animals and plants, impacting the entire food chain down to humans. A few studies highlighted toxicity on species resistant to traditional insecticides (malaria vectors) and indicated that even rats were avoiding areas polluted by cigarette butts. Finally, the majority of studies reported pollution on all continents, either in urban or coastal regions, while cigarettes butts are not quickly biodegradable.

### Conclusion

Deleterious impacts of cigarette butts on human, animal, vegetal and environmental health are beginning to be described in the

literature. The ubiquitous and growing nature of this pollution must raise concern among the civil societies and government in order to intensify the fight against smoking.

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## The Canadian experience with e-cigarettes since legalization

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### Background

In May 2018 the federal government in Canada legalized the sale of e-cigarettes, converting an illegal-but-tolerated marketplace for unregulated vaping products into one where cigarettes were sold as fast moving consumer goods (FMCG). The stated goals of the legalization were to provide smokers with ‘access to more choice’. This ‘harm reduction approach aims to reduce the negative consequences of cigarette smoking by recognizing the potential benefits of using less harmful alternatives’. Against the advice of public health charities, the government allowed many forms of advertising and promotion, including broadcast advertising, billboards, free sampling and instore displays. Several provinces implemented their restrictions on these practices, leaving a patchwork of different regulations across the country. In the same year, the federal government legalized the sale of cannabis, converting an illegal-but-tolerated marketplace into one where cannabis was sold as a highly restricted product. Following the advice of health charities, the government imposed relatively strict restrictions on cannabis promotions, comparable to those in place for tobacco products. Provincial governments adopted different approaches to retail distribution.

### Objectives

To compare the impact of a legalized e-cigarette market in Canada, taking into consideration regional regulatory differences.

### Methods

Analysis of marketing tactics by companies, the prevalence of use and attitudes and behaviours of Canadians.

### Results

Even where provincial promotional regulations were strict, youth uptake of e-cigarettes increased significantly. The legislation put in place did not prepare for the reality of industry marketing.

### Conclusions

The Canadian experience with these two drug categories and 10 subnational regulatory approaches demonstrates the vulnerabilities of public health to liberalized markets and the benefits of a regulatory restrictions. Lessons for other regions can be drawn.

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## Diabetics can quit without gaining weight

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### Background

Post cessation weight gain (PSWG) is typical when quitting smoking, unmotivates smokers to quit and may lead to relapses. PSWG is of considerable concern not only among women but also among smokers with diabetes mellitus, additionally arguing this could further disturb glycemic control.

### Objectives

We intend to shed light on diabetic smoker traits in order to organize a smoking cessation program that fulfils their needs.

### Methods

We organized an intense smoking cessation program for diabetic smokers from a multidisciplinary team, using intense behavioural support, pharmaceutical treatment and advice for physical activity. Diabetic smokers were administered varenicline and attended the outpatient clinic once a week for the first month and once a month for the first trimester. Our recruitment target is 200 of participants.

We assessed addiction (Fagerström Test For Nicotine Dependence, FTND) intensity of smoking (cigarettes/day, pack-years), motivation/confidence, bodyweight, Rest Metabolism Rate (RMR), physical activity (IPAQ) and glycemic control parameters (HbA1c).

### Results

Below are the first-year results. Until now, 41 smokers (27 men, 14 women) agreed to participate. They were highly addicted (FTND: 9/11), smoking around one pack of cigarettes per day, highly motivated (8.1, on a scale of 1 to 10) and with poor confidence (5.1, on a scale of 1 to 10). After the 3-month program completion, 25 participants quit smoking (61%). Their average weight slightly dropped (kg before/after: 88.13±15.41/87.45±16.24) while RMR increased (kcal before/after: 1349/1472), though both changes were not statistically significant ( $p>0.05$ ). Likewise, a slight increase of HbA1c was not statistically significant ( $p>0.05$ ). Participants self-reported increase of physical activity (IPAQ score: high level from 14.3% to 26.3%) showing adherence to strong recommendations given from the medical team.

### Conclusions

We conclude that intense smoking cessation programs for diabetic patients from an experienced multidisciplinary team can lead to high quitting rates without PSWG.

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## Liability

### Lessons from Canada's 20-year lawsuits against tobacco companies

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#### Background

Outside of the United States, Canada is the country with the greatest number of lawsuits filed against tobacco companies. Since 2000, each of Canada's provincial governments has filed for recovery of healthcare costs. Class action lawsuits filed in Quebec resulted in a lower court victory in 2015 and a provincial appeal court victory on 1 March 2019, with the companies jointly ordered to pay more than €9 billion to 100000 Quebec smokers. Soon after, the companies filed for insolvency protection drawing all governments and other litigants into negotiations towards a global settlement. Health interests have been excluded from these discussions, and there is little indication whether or how these suits will serve a public health interest. Other FCTC parties can learn from the Canadian experience on how better to align litigation activities with tobacco control.

#### Objectives

To assess the impact of Canada's tobacco litigation on public health.

#### Methods

Analysis of court filings, court proceedings, public statements.

#### Results

To date, there is no indication that the lawsuits are intended to support tobacco control efforts. Contributing factors may include secrecy of proceedings, lack of involvement of health ministries in key decisions, change of governments, lack of oversight by the media and health charities.

#### Conclusions

Parties intending to use litigation to support tobacco control efforts should ensure that these objectives are established in the legislation used to enable the suits. Other steps may also be required.

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## Cooperation and communication

### Quantitative analysis of WHO report on the global tobacco epidemic 2019: Which region is better on MPOWER implementation?

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#### Background

In 2008, the World Health Organization (WHO) introduced a package of measures including 6 main policies (MPOWER) to control tobacco use. Our aim was to perform a quantitative analysis of MPOWER in the 6 WHO regions.

#### Methods

This cross-sectional study collected information in summer 2019

using pages 136–149 of the WHO report on the global tobacco epidemic 2019 and a validated checklist with 10 criteria (6 policies plus 1, 2 compliance and 1 prevalence), included in the report of each country, a 0–4 point scale was used for scoring the 5-item criteria, and a 0–3 point scale was used for scoring the 4-item criteria. The possible maximum score was 37. The scores were summed and presented in descending order for the 6 WHO regions.

#### Results

The highest mean score was recorded by the European Region (26.41), followed by: South-East Asia Region (25), Western Pacific Region (24.88), Region of the Americas (22.05), Eastern Mediterranean Region (21.40) and African Region (17.40). There was a significant difference ( $p < 0.05$ ) for means in this regard.

#### Conclusions

Although many efforts on tobacco control have been made, many challenges to policy implementation and enforcement remain needed for regions and Eastern Mediterranean and African regions require urgent action by governments to reach the best status.

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### Tobacco use in immigrants and their descendants in France: A qualitative study

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#### Introduction

Tobacco smoking causes over 75000 deaths every year in France. Although immigrants and their descendants represent one person in five in the total population, their tobacco use has rarely been reported. Recent epidemiological studies have estimated the prevalence of smoking in major groups of immigrants. However, this topic has not yet been qualitatively investigated.

#### Objective(s)

This study aimed at investigating the tobacco use – including all forms of smoked and smokeless tobacco – in immigrants and their descendants in 3 metropolitan areas in France. The specific objectives were: 1) to document the knowledge, beliefs and representations of immigrants on tobacco use, and 2) to explore the practices and representations on immigrants' tobacco use of healthcare professionals and social workers in the community.

#### Methods

Two complementary methods have been used in 18+ immigrants and their descendants living in France since at least one year: semi-structured individual interviews and focus groups. Healthcare professionals (incl. GPs, nurses and pharmacists) and social workers underwent semi-structured interviews. Interviews were conducted by trained sociologists. Individual and group interviews were recorded and transcribed for thematic analysis.

#### Results

The study population comprised 80 participants, including 57 immigrants and 23 descendants, with a sex ratio of one. Thirty-five healthcare and social professionals were interviewed. The

immigrant study population was constituted of 50% smokers, and 17% former smokers. Four main themes were identified: tobacco use practices, precariousness, gender and professional practices linked with cessation.

#### Discussion

These results provide a unique insight in different immigrant subgroups' tobacco use: experiences, psychosocial functions of tobacco use, social norms including gender differences, attitudes towards tobacco control means and prevention linked to the potential role of healthcare professionals. These results have informed an epidemiological study that will quantify barriers and levers to the development of tailored tobacco prevention interventions, relying on local professionals.

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### Limited-resources tobacco control interventions: How to show the effects to the authorities and sponsors, and lessons learned

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#### Background

In low-income countries, tobacco control interventions are often conducted with limited resources, not allowing a rigorous impact evaluation. However, the ability of tobacco control advocates (TCA) to assess the intervention effects is crucial to prove the necessity for funding.

#### Objectives

This presentation aims to review minimal requirements for planning interventions and their evaluation that TCA can take into account.

#### Methods

PICO (population-intervention-comparison-outcome) approach is used.

#### Results

The set of questions below helps to plan an intervention with measurable effects.

Population: What population groups to reach and what unhealthy behaviours to address? What behavioral changes are intended?

Intervention: Which components/elements are included in the intervention? Which intervention element is aimed at which group? Do these groups overlap? What determines the selection of intervention groups? Is randomization possible? Do certain territories or facilities attract more resources and interventions than others? Are different messages transmitted through various media?

Comparison: Is it possible to survey both the intervention and the comparison group several times before and several times after the intervention? Are only repeated cross-sectional surveys affordable? Are there questions that are asked regularly? Do they measure what the intervention aims to change?

Is there a clear distinction between groups that were covered by the intervention and those not covered (for example, by territory)? Can the survey distinguish the intervention groups and the exposed individuals?

Is the intervention aimed at limited territories? How large can the exposed sample be in a nationally-representative survey?

#### Outcome

Does the intervention disseminate messages? Does it aim to

change health-related behaviors? Is your questionnaire aimed to measure knowledge or behavior? Does it invite people to report socially-desirable behaviors? Is self-reported behavior change triangulated by the report from third parties?

#### Conclusions

Proper planning of small-scale interventions with limited resources can still allow evaluating their impact.

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### Product transitions among smokers before and after implementation of the European Tobacco Products Directive: Cohort study findings from the EUREST-PLUS ITC Europe Surveys

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### Background

Product transitions among smokers may be due to many factors, including shifts in the tobacco control regulatory environment. In the European Union (EU), the implementation of the European Tobacco Products Directive (TPD) in May 2016 precipitated the possibility for consumer transitions between products.

### Objectives

The aim of this study was to examine trends and transitions in types and combinations of products used from 2016 to 2018, before and after TPD implementation, in six EU Member States.

### Methods

Longitudinal data come from Wave 1 (pre-TPD) and Wave 2 (post-TPD) of the EUREST-PLUS ITC Six European Country Surveys, a cohort study of adults who at the time of recruitment were smokers, from Germany, Greece, Hungary, Poland, Romania, and Spain (n=3195). Bivariate and logistic regression analyses of weighted data were conducted using SAS-callable SUDAAN.

### Results

At Wave 2, the majority of respondents smoked factory-made (FM) cigarettes only (61.5%), followed by roll-your-own tobacco (RYO) only (15.2%), both FM and RYO (7.5%), and any cigarette plus electronic cigarettes (e-cigarettes) (3.3%), while 0.8% quit and used e-cigarettes and 11.8% quit. Overall, among those who smoked FM only at Wave 1, 4.3% switched to RYO only. Among RYO only users at Wave 1, 17.0% switched to FM only. However, compared to all other countries, respondents from Hungary had the highest percentage of FM only users at Wave 1 switch to RYO only at Wave 2 (18.0%).

### Conclusions

The most prominent transition overall was from smoking RYO exclusively at Wave 1 to smoking FM tobacco exclusively at Wave 2. In Hungary, however, nearly one-fifth of exclusive FM smokers transitioned to RYO tobacco, significantly higher than the other countries. As the tobacco control regulatory environment of the EU develops, it is important to continue to monitor transitions between types of products, as well as trends in cessation.

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### Smoking influences the severity of obstructive sleep apnoea independently from COPD

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### Background

The influence of smoking on the incidence and/or severity of the obstructive sleep apnoea (OSA) is still being debated, and remains a controversial matter. Some studies explained the relationship between OSA severity and smoking as a consequence of the lung function impairment caused by chronic obstructive pulmonary disease (COPD).

### Objective

To assess the impact of smoking on OSA severity in patients

without COPD.

### Methods

A cross-sectional study of OSA severity among outpatients was conducted. Demographics (age, gender), anthropometric data (body mass index, waist circumference, neck circumference), smoking exposure, symptoms, spirometry and nocturnal polygraphy parameters were recorded. All COPD cases were excluded. The severity of OSA was estimated by apnoea-hypopnoea index (AHI) thresholds (AHI  $\geq 5$  for mild, AHI  $\geq 15$  for moderate, AHI  $\geq 30$  for severe) and markers of desaturation [TS90O2 (90% of O<sub>2</sub> saturation level) and ODI (O<sub>2</sub> desaturation index)]. Data were processed by SPSS software. Current smokers (CS) and never smokers (NS) were compared using Mann Whitney and chi-squared tests.

### Results

Study group included 112 OSA cases (50 CS and 62 NS), with no difference in gender distribution ( $\chi^2=2.66$ ;  $p=0.10$ ) or anthropometric characteristics ( $p<0.05$ ). CS were significantly younger (mean age 44.23 years vs 52.28 years in NS,  $U=1972$ ;  $p=0.014$ ), had significant higher daytime sleepiness ( $\chi^2=4.46$ ;  $p=0.03$ ), great frequency of severe OSA (78% vs 56%,  $\chi^2=5.73$ ;  $p=0.02$ ), with significant difference in supine AHI ( $p=0.009$ ), associated with longer TS90O2 (median=17.5 in CS vs 7 in NS,  $U=1138.5$ ;  $p=0.05$ ) and higher ODI (median=54 vs 34.5 in NS,  $U=1138$ ;  $p=0.02$ ).

### Conclusions

Current smokers developed severe OSA almost one decade earlier than non-smokers. All outcomes of this study are supporting the influence of smoking on OSA severity, independent of the mechanisms initiated by COPD.

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### Electronic cigarette for smoking cessation: A randomized, placebo controlled, double blind, double dummy, multicenter trial comparing electronic cigarettes with nicotine to varenicline and to electronic cigarettes without nicotine, the ECSMOKE trial

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### Background and Rational

Electronic cigarettes (EC), mainly with nicotine content, are widely used worldwide. Although the number of publications about its use is increasing exponentially, evidence-based, unbiased, conclusive, head-to-head comparisons about its efficacy and safety as an aid for smoking cessation are lacking.

### Methods and analysis

Design: Randomized, placebo and reference treatment-controlled, multicenter, double-blind, double-dummy, parallel-group trial. Participants: Smokers smoking at least ten cigarettes/day in the past year and motivated to quit, aged 18–70 years.

### Interventions

1. EC without nicotine (ECwoN) plus placebo tablets of varenicline administered by oral route: placebo condition
2. EC with nicotine (ECwN) plus placebo tablets of varenicline: ECwN condition

Voltage regulated electronic cigarettes will be used with liquid

containing 12 mg/mL of nicotine for ad libitum use—flavour, blond tobacco.

3. ECwoN plus 0.5 mg varenicline tablets (Ref.): varenicline condition. Varenicline administered according to the marketing authorisation. Treatment duration: 1 week + 3 months. Follow-up at six months.

#### Outcomes

Primary outcome: continuous smoking abstinence rate (CAR) (abstinence from conventional/combustible cigarettes) during the last four weeks (weeks 9 to 12) of the treatment period defined as self-report of no smoking during the previous two weeks and expired air CO  $\leq$ 8 ppm at Visit 4 at Week 10 after the target quit date (TQD), i.e. 11 weeks after treatment initiation AND at Visit 5, Week 12 after TQD, i.e. 13 weeks after treatment initiation.

Secondary outcomes: Safety profile; continuous abstinence rate from target quit date, point prevalence abstinence rate; CAR confirmed by urinary anabasine concentration; changes in cigarettes/day consumption, craving for tobacco and withdrawal symptoms with respect to baseline.

Between 17 October 2018 and 10 March 2020, 328 smokers were randomised.

#### Conflicts of Interest

Occasional honoraria from Pfizer for presentations at meetings in the last 3 years.

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## Poland as the country with the steepest decline in per capita cigarette consumption in Europe

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#### Background

In recent years, we have seen the publication of several large studies and surveys allowing us to trace the changes in the exposure of European populations to tobacco. These included a publication on tobacco smoking in the European Union<sup>1</sup>, a Global Burden of Disease analysis<sup>2</sup> and estimates of cigarette consumption for 71 countries<sup>3</sup>.

#### Objectives

To summarise the existing state of knowledge on cigarette consumption and smoking prevalence in European countries. To explore and analyse in-depth the case of Poland.

#### Methods

A ranking table and analysis of cigarette consumption and smoking prevalence in European countries between 1970 and 2015 were prepared.

#### Results

In the early 1990s, during political change in Eastern Europe, Poland had the highest per capita cigarette consumption in Europe (almost 4000 per annum) one of the highest smoking prevalence levels in the world (70% in men and 30% in women). After introducing wide-ranging tobacco control measures, Poland experienced a steady decline in cigarette consumption and smoking prevalence. The pace of decline in the number of cigarettes consumed per capita per annum was fastest in Poland and reached less than 1500

cigarettes per capita per annum in 2015. Currently, Poland is an average European country when it comes to smoking rates, with a prevalence of 26% in men and 17% in women.

#### Conclusions

The case of Poland illustrates that appropriate tobacco control measures can help precipitate rapid declines in smoking. It is a useful example to other countries with persistently high smoking rates. At the same time, Poland still has a long way to go to become a leader in the control of tobacco diseases.

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## Twenty years monitoring of smoking among teenagers in the province of Hainaut (Belgium)

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#### Background

Hainaut province has a low socioeconomic background and poor health indicators. Tobacco smoking is higher than national average. Since 1997, the Observatoire de la Santé du Hainaut has monitored the health of teenagers of its province.

#### Objectives

Monitor health behaviours and health status of teenagers (10 to 17 years) and particularly smoking habits.

#### Methods

Three samples of 500 pupils from 6th primary, 2nd and 4th secondary classes in Hainaut are drawn through a stratified cluster random sampling method. Students fill a self-questionnaire; weight, height, waist circumference and arterial pressure are measured during school medical examination. The survey includes specific indicators of tobacco/ e-cigarettes consumption: age at first consumption, frequency and habits, entourage influence, socioeconomic status indicators...

#### Results

Smoking decreased from 30% in 1997 to 11% in 2017 among young people aged 15 to 17. Relatives have an influence: 16-year-olds whose parents and siblings are non-smokers have a limited risk of smoking (around 8%). However, the frequency of smoking (daily or non daily) increases to 17% if the father smokes, to 19% if the mother smokes and reaches 25% if a brother or a sister smokes. There is a smoking ban in all schools in Belgium. However, at 11 years old, 35% of the pupils declared that they saw a teacher smoking at school. This proportion increases to 54% for 16 year olds. Smoking habits are linked to family type and number of working parents. In 2017, 19% of 13-year-olds and 29%

of 16-year-olds has experienced E-cigarette.

### Conclusions

Though smoking decreased in a twenty years period, it remains a public health challenge in groups where adults around keep on smoking and in disadvantaged social groups. E-cigarette is an emerging problem. Given the popularity of e-cigarette among teenagers, the risk that smoking increases again among the young adults is real.

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## Implementation of WHO - FCTC Article 20 in Albania: Needed actions to fill an existing gap

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### Background

Albania ratified the World Health Organization Framework Convention on Tobacco Control (WHO-FCTC) in 2006. Article 20 deals with surveillance and research on all tobacco products including smokeless tobacco. Tobacco use is high in Albania, with the Institute of Public Health (IPH) monitoring at national level. Since 2014 the IPH has implemented a comprehensive tobacco control program, which is permanently evaluated. This study aims to evaluate the implementation of WHO-FCTC Article 20 in Albania.

### Methods

A health policy analysis was conducted. A scoping search took place in the PubMed database, and Albanian Institute of Public Health reports for articles and policy documents published after 2006 on tobacco consumption in Albania. The articles were categorized as: smoking prevalence reports/articles, tobacco control policy articles, smoking-related diseases articles and articles published with the contribution of the academic staff of the Albanian universities.

### Results

The literature search identified 37 PubMed articles. Seven articles were reporting the smoking prevalence in Albania, ten focused on tobacco control policies, and 20 were about smoking-related diseases. Only six were published at the academic level with the participation of Tirana and/or Vlora University health departments.

Since 2006, six reports were published from IPH. They were reporting on the health status of the Albanian population while cigarette smoking was among the measured indicators. No reports focused on smoking were identified.

Age and gender were the only demographic indicators included in most of the retrieved publications. Additionally, a gap of information and research of smoking prevalence in vulnerable subgroups, such as Roma population, people with chronic conditions, pregnant women etc., was identified. In addition, no articles/data are available on predictors, reasons and quitting behaviour of the Albanian population.

### Conclusions

Despite the efforts of the past years in the field, the development

of a comprehensive strategy and surveillance system for the implementation of the WHO FCTC Article 20 at country level is still missing. Additional efforts, sufficient research, will power and funding is required. Higher Education Institutions should contribute and consider tobacco as a key priority in their research strategies. Collaboration of different actors such as Universities and the IPH for developing a national database on tobacco surveillance should be of high priority for Albanian health policy makers.

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## Tobacco statistics in the Ukraine

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### Introduction

Ukraine ranks 17th in the list of leading countries in the number of smokers. Our objective was to evaluate the epidemiology of the spread of tobacco in Ukraine.

### Material and Methods

Statistical analysis and sample surveys available in Ukraine were used as the data source.

### Results and Discussion

According to the national statistics report in 2018, the population of Ukraine had 5.96 million smokers. The prevalence of smoking among the Ukrainian population aged  $\geq 12$  years in 2018 was 17.9%, which is 4% less than in 2017. The prevalence of smoking in rural areas has declined to a greater extent (16% in 2018), while 18.9% of respondents have smoked in cities. The decrease in the prevalence of daily smoking in 2018 was recorded in adult men: from 38% in 2017 to 36% in 2018, and the prevalence of smoking in women has not changed (5%). Among youth, 45% of boys and 35% of girls smoke; 68% of smokers say they are interested in quitting smoking, and of those who have ever smoked daily, 26% are already former smokers. In general, smoking prevalence in the Ukraine has decreased from 25.6% to 17.9% over the last ten years (2008–2018). The number of female smokers has fallen more than a third (17% to 5%). A major factor in the reduction of the prevalence of smoking in 2018 was the decrease in the affordability of cigarettes. However, in order to reduce the prevalence of smoking among all sectors of the population, it is necessary to strengthen tax policy through legislative and administrative measures. Such comprehensive measures are proposed in draft laws No. 2820 and No. 4030a, designed in accordance with current European Union rules.

### Conclusion

Statistical analysis has shown that smoking is a major socio-economic problem in the Ukraine that requires a proper assessment of counteracting measures. Ukraine's experience demonstrates that the comprehensive implementation of all tobacco control measures can reduce the prevalence of smoking and the number of tobacco-related diseases and deaths.

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## Tobacco and other nicotine-containing products regulation in Russia

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### Background

Turnover of tobacco products in Russia is 18–22 billion US\$ per year. ENDS and heated tobacco products (HTPs) share is 2%. Smoking prevalence declined in 2009–2016 from 60.7% to 50.9% among males; from 21.7% to 14.3% among females. Use of ENDS, HTPs and other nicotine-containing products (NCPs) increased. Mass poisonings of children with NCPs occurred recently. Tobacco industry (TI) is investing in HTPs manufacturing. Import of ENDS, HTPs devices reached 2 million units per year.

### Objectives

To review tobacco and other NCPs availability, use and regulation in Russia and develop recommendations for public health benefit.

### Methods

Sources were identified by searching websites of Eurasian Economic Union (EAEU), EAEU Member States, research centers, online research databases, and TI sources.

### Results

'Concept for implementation of State policy to counteract the consumption of tobacco and other NCPs for a period up to 2035 and future perspective' adopted in November 2019, defined NCPs as products containing nicotine and intended for the consumption of nicotine in any way (except for registered medicines), as well as devices for consuming such products. Federal legislation does not regulate chewing tobacco, and sucking NCPs, oral mixes without tobacco, ENDS, HTPs, hookah, besides taxation. There are tax exemptions and subsidies to benefit TI. Half of Federation constituent entities adopted regulations on some products. Legislation of EAEU (not a Party to WHO FCTC) does not regulate these products. The Russian Government accepted a single regulation of tobacco and other NCPs. TI has been lobbying for separate regulation of ENDS and HTPs as reduced risk products at Federal and EAEU levels.

### Conclusions

TI promoted regulation should be prevented at EAEU and Federal levels. There are strong arguments in favour of a ban on novel tobacco and other NCPs. Foreign direct investment in TI should be abolished. EAEU should establish relations with WHO and join WHO FCTC.

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## Smoking rates and associated factors among foreign students in Firat University

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### Background

Past research has shown that smoking rates may be high among university students. Therefore, it is important to evaluate smoking and associated factors in a university setting, to plan smoking prevention programmes and tobacco control policies.

### Objectives

We sought to evaluate smoking rates and associated factors among foreign university students at Firat University.

### Methods

We conducted a cross-sectional study and data were gathered through a structured questionnaire applied in the classroom. A convenience-weighted sample among foreign students was obtained since it was not possible to access students' data to plan a random sample. We performed a descriptive and inferential analysis using chi-squared tests and binary logistic regression.

### Results

Participants were 337 students, 17% females, with mean age 24 years. All students were originally from African and Middle East countries. The general smoking rate was 36.5%, 32.8% among females and 37.3% among males ( $p=0.55$ ). Sub-Saharan African students reported the lowest smoking rates, in both sexes ( $p<0.05$ ). Although women from Sub-Saharan African countries were less likely to smoke than men (12.5% versus 29.3%, respectively), differences were not statistically significant ( $p=0.094$ ). Logistic regression showed that Muslim students (AOR=0.06; 95% CI: 0.03–0.12;  $p<0.001$ ) and Sub-Saharan African students (AOR=0.11; 95% CI: 0.06–0.21;  $p<0.001$ ) were less likely to smoke.

### Conclusions

There is a need for implementing smoking prevention and tobacco control policies at Firat University. These programs should take into account cultural and religious smoking norms and beliefs.

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## Smoking prevalence in Greece: The role of age and sex

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### Background

The smoking ban law has been successfully implemented in Greece since 2019; however, data on smoking prevalence post-implementation do not yet exist. Our objective was to estimate the current smoking prevalence in Greece.

### Methods

The sample was representative of the adult Greek population

according to sex and age based on national census data. Participants reported their smoking status and use of tobacco (TP) and novel tobacco products (NTP). Data collection took place in February 2020 using computer-assisted telephone interviewing by Kapa Research. Differences between groups were assessed with chi-squared tests. The analysis was performed in STATA 13.

### Results

In all, 1976 adults participated in the study. Smoking prevalence was 28%; 17% were daily, and 11% occasional smokers. Highly statistically significant differences were depicted with regard to sex; men presented a slightly higher smoking prevalence compared to women (29% vs 28%) and a higher ex-smoking prevalence (36% vs 29%), while women presented a higher never-smoking prevalence (40% vs 34%) ( $p=0.003$ ). Statistically significant differences in smoking prevalence were observed between ages, with the highest in those aged 35–44 years (36%) and lowest in those aged  $\geq 65$  years (21%) ( $p<0.001$ ). Majority of smokers (86%) smoked exclusively one product, combustible cigarettes (57%) or roll-your-own (RYO) cigarettes (29%). Of the smokers, 18% reported exclusive use of NTPs. Statistically significant differences were depicted between sexes and products use; more women than men used exclusively combustible cigarettes (55% vs 43%) while more men used only RYO cigarettes (28% vs 23%) ( $p=0.001$ ). Differences were also observed between products use and age groups; 55% of smokers aged 35–64 years used exclusively combustible cigarettes, while 46% of smokers aged 17–34 years used RYO cigarettes ( $p<0.001$ ) exclusively.

### Conclusions

Significant differences in smoking status and products use were observed between sexes and ages. Preventive interventions should be tailored to address these differences.

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## Use of electronic cigarettes and heated tobacco products related to marketing, age and smoking status in the Russian population: Results from the Russian Tobacco Control Policy evaluation survey

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### Background

Electronic cigarettes (EC) and heated tobacco products (HTP) are largely marketed in Russia.

### Objectives

To investigate the prevalence of EC and HTP use related to exposure to advertisement and promotion (A&P) in the Russian population.

### Methods

Cross-sectional data of adult population-representative sample from Russian Tobacco Control Policy Evaluation Survey are analysed, based on multistage territorial sampling in 10 Russian Federal states in 2017–2018, stratified by smoking status ( $n=11625$ ): 6569 smokers, 2377 former smokers, and 2679 never smokers. Ever EC use, including HTP and current EC use is

analysed in relation to demographic factors and exposure to A&P of EC. Logistic regression models are employed, and odds ratios (OR) are adjusted by sociodemographic factors and smoking status.

### Results

Ever EC users were 9.3% of population: 11% men and 7% women ( $p<0.001$ ). HTP users were 3.3% of the population: 4.2% men and 2.2% women ( $p<0.001$ ). Current EC users were 2.5% of the population: 3.2% men and 1.6% women ( $p<0.001$ ). The prevalence of EC/HTP ever and current use was much higher among the youngest age group 18–24 years: 23.5%, 7% and 6.8%, respectively, vs the average ( $p<0.001$ ).

Higher likelihood of EC/HTP ever and current use was strongly associated with: 1) age, most elevated in those aged 18–24 years (OR=7.37, 2.21, 4.37); 2) smoking status – highest OR in smokers (OR=7.2, 7.27, 5.4 vs former smokers OR=4.85, 5.79, 3.44, and never smokers ( $p<0.001$ ).

Chances to be EC ever/current users were significantly higher in case of exposure to AP of EC: 1) on internet (OR=2.17 and 2.77); 2) in social networks (OR=1.64 and 1.9); 3) on TV (OR=1.77 and 3.74, respectively; and 4) in shops, selling EC (OR=1.82). Chances to be HTP ever users were significantly higher when exposed to EC A&P: 1) on TV (OR=3.67); 2) in shops, selling tobacco products (OR=4.69); 3) at sports events (OR=3.04); 4) in bars and pubs (OR=2.19); and 5) at temporary shopping facilities (OR=2.11).

### Conclusion

The use of EC, largely prevalent among the young, is strongly related to A&P of these products. A legal ban on A&P of all forms of EC is required.

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## Heat not burning tobacco (HNBT): Is it not also our mistake?

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Heat not burning tobacco is and remains a challenging subject for all people involved in tobacco control. The main question is: ‘Can we repeat the same mistakes as for conventional tobacco?’. We commence with what the tobacco industry already knows, what are the expectations of this deadly industry, what are their arguments, and the new strategies they adopt and our potential mistakes. At the same time, one can find some possible actions to counteract and disable the tobacco industry strategies.

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## Electronic cigarette use among Italian smokers: Patterns, settings and adverse events

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### Background

In Europe, after an initial rapid spread of electronic cigarettes, their use increased only slightly. Also, in Italy, the prevalence of

adult ever users remained stable, around 5% in 2013–2018. There is a lack of information on the patterns and settings of electronic cigarette use and on its possible adverse events.

### Objective

To fill this knowledge gap, we conducted a survey among Italian ever smokers attending selected Italian smoking cessation services (SCS).

### Methods

From June 2016 to July 2018, 395 adult ever smokers who were also current or former electronic cigarette users, were enrolled from 12 SCSs of the Associazione Italiana Pneumologi Ospedalieri (AIPO) from northern, central and southern Italy.

### Results

In all, 12.4% of ever smokers were regular, 9.4% occasional, and 78.2% past users of electronic cigarettes. Among ever users, 93.8% consumed electronic cigarettes with nicotine, 95.9% used refillable devices, 76.6% purchased an electronic cigarette device or its liquid in vape shops. The mean duration of use was 3.7 months and the mean number of puffs per day was 86. Overall, 71.5% used electronic cigarettes in at least one smoke-free indoor environment, 53.7% in workplaces, 49.5% in restaurants and bars, 33.5% in train/metro stations or airports, and 18.4% in public transport. The use of electronic cigarettes in smoke-free environments significantly decreased with age and increased with duration of use and nicotine dependence. In our sample, 47.1% reported at least one adverse event attributable to electronic cigarette use, 19.5% dry cough, 12.0% dry mouth, 7.6% throat or mouth irritation, and 6.8% sore throat.

### Conclusions

In Italy, most conventional cigarette smokers use electronic cigarettes where smoking conventional cigarettes is prohibited. About half of users reported one or more symptoms attributable to electronic cigarettes, despite the relatively short duration of use, suggesting that they should not be underestimated.

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## A qualitative study of electronic cigarette use among young people in Ireland: Incentives, disincentives, and equivocal cessation

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### Background

Smoking prevalence in Ireland is falling in all age groups, but the prevalence of e-cigarette use is rising among young people. This qualitative study aims to explore and understand the factors associated with young people's use of e-cigarettes.

### Methods

Semi-structured individual and focus group interviews were conducted with young people aged 16–22 years. Participants were recruited from a higher education institution and youth organisations working with early school leavers across Dublin. In total, there were 62 participants in the study, consisting of 22 individual interviews and eight focus group interviews with 40 participants. Categorical and thematic data analysis was used to generate the findings.

### Results

Three themes emerged from the data analysis: incentivising and

disincentivising factors, and ambivalent unsuccessful cessation. Incentivising factors included price, taste/flavours, and the possibility of indoor use. Disincentivising factors included adverse health effects (pain, discomfort, coughing, sore throat, headache), unpleasant physical effects (relating to bad taste and device faults), and over-consumption and 'greater addictiveness'. Ambivalent cessation refers to the failure to quit by using e-cigarettes, leading to continued or resumed smoking of PMC/RYO; dual usage of e-cigarettes and other tobacco products; and inability to quit e-cigarettes. E-cigarettes were viewed as being less 'denormalised', in part at least because they could be used in indoor spaces where smoking is banned in Ireland.

### Conclusions

While smoking cessation and reduction are important motivators for young people's use of e-cigarettes, they report also that e-cigarettes cause adverse health effects; are more addictive and they have less control over the amount they consume; they are sceptical about their 'purported relative healthiness'; have concerns about potential negative health effects of e-cigarette use; and are aware of many issues with the devices themselves. The regulation of e-cigarettes through the banning of indoor use should be considered by legislators and tobacco control policymakers.

### Acknowledgements

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## Comparative analysis of the prevalence of tobacco use among the population of the Kyrgyz Republic aged 15 years and older (2005 and 2019)

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### Objective

To study the prevalence of tobacco use among a population of the Kyrgyz Republic (KR) aged 15 years and older by sex, age group and conduct comparative analyses with data of national tobacco use survey from May 2005.

### Methods

The representative national random sample with 3000 members aged 15 years and older were selected from 1080 households. Face-to-face interviews were conducted with 2817 (response rate: 94%) respondents during August 2019. The comparative analyses were conducted with data of the National Tobacco use survey, that was conducted on May 2005

### Results

There is a slight decrease of the level of current smoking among the male population aged 15 years and older. However, the overall level of current smoking among women increased 3 times in 2019 compared to 2005, which affected the overall smoking level.

Nasvay consumption among men increased more than 3 times in 2019 compared to 2005, and among women more than 7 times compared to 2005.

#### Conclusion

The smoking prevalence among the population in the age group of 15 years and older increased by 7% due to the increase in female smoking. Consumption of nasvay, both among the male and among the female population aged 15 years and older, has increased. Nasvay is sold uncontrollably everywhere, it is not prohibited, but it is not regulated, with a rise in the price of cigarettes, some smokers switch to affordable products such as nasvay.

#### Acknowledgement

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### Challenges in smoking cessation for cancer patients

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#### Background

The knowledge about the harmfulness of smoking is relatively well established. However, knowledge about the benefits of smoking cessation after cancer diagnosis remains at a low level among both oncologists and patients. Despite the importance of stopping smoking for all cancer patients and the fact that cancer diagnosis is a teachable moment when the motivation to quit smoking is at high level, the diagnosis of cancer is underused for smoking cessation. This is not only due to the fact that smoking is both physiologically and psychologically addictive, making it extremely difficult to quit even if the willingness to do it is relatively high after cancer diagnosis.

#### Objectives

To search the literature to ascertain the barriers in successful smoking cessation on both sides – cancer hospital staff and patients themselves. To identify factors that promote effective smoking cessation interventions.

#### Methods

A literature review.

#### Results

The main barriers on the doctors' side are: beliefs that addressing smoking issues will be difficult and/or undesirable by the patient, lack of time and lack of skills/training, and apprehension to increase patient's stress. On the patients' side, the barriers are: heavy nicotine dependence, lack of full awareness of the connection of smoking to cancers other than lung or head and neck, beliefs that barriers to quitting outweighed the benefits of quitting, depressive symptoms, and shame. Factors that promote success are: opt-out approach, interventions with positive message focused on the benefits of quitting rather than consequences of smoking to avoid increase in fear and guilt.

#### Conclusions

It seems that just the simple message that smoking is doing harm is not enough now – all our intervention must be tailored to specific groups of smokers and cancer patients are such a group. It seems that intervention based on existing tools like smoking cessation clinics and Quitline is necessary since the oncologists do not have time and skills to provide smoking cessation interventions.

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### E-cigarette users are a new challenge for Quitline

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#### Background

Despite the well-established public awareness of the harmful effects of smoking, 21% of adults still smoke in Poland every day, and 5% of Poles smoke occasionally. The vast majority of smokers still use traditional cigarettes; however, we could observe the growing popularity of electronic cigarettes. One of the reasons for their popularity is probably their promotion as a safer form of smoking. Data from 2018 indicate that in Poland 3.1% of adult men and 1.7% of women are exclusive users of e-cigarettes, and in the 18–24 age group regular use of tobacco products of e-cigarettes was started by 7.9% of current smokers and 12.6% of pupils or students.

#### Objectives and Methods

To analyze the profile of 102 e-cigarette users calling the national Quitline, and to compare them to 2495 users of regular cigarettes.

#### Results

In the second half of 2019, e-cigarette users accounted for 3.9% of callers, of whom 32.3% were women and 67.3% men. There are clear differences in the callers' profile. Users of e-cigarettes calling the Quitline are mainly people under 30 years of age (64.4%), while among traditional smokers there are only 33.6% in this age group. There is a clear difference in the declared motivation to stop smoking. Among the users who smoke traditional cigarettes, 34.2% as the main motivation to quit smoking declare concern for health, and among e-smokers, only 14% declare such motivation. E-cigarette users declare rather family pressure or aesthetic considerations or the fashion of not smoking as the reason for wanting to quit. This may suggest a belief that e-cigarettes are not or less harmful. A small percentage of Polish Quitline callers use e-cigarettes as a method to quit smoking. Only 1% planned to use these devices to quit smoking and during the current attempt, and 2.2% have tried to quit using e-cigarettes in the past. Only 8 people using e-cigarettes used the proactive service, of which 5 people stopped smoking.

#### Conclusions

The growing number of e-cigarette users among Quitline callers requires changes in the training of the team and study on the effectiveness of re- and proactive interventions.

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## E-cigarettes from the perspective of teenagers: Results of focus studies

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### Background

Research shows that over 80% of smokers start their habit under the age of 18 years. A few years ago, young people undertook risky behaviours related to nicotine initiation mainly by smoking cigarettes. Today, next to traditional tobacco products, electronic cigarettes are becoming more and more popular. Due to the prevalence of new forms of nicotine addiction, modification of anti-tobacco prevention programs is required.

### Objectives

The purpose of the research was exploration–learning the opinions and attitudes of young people towards e-cigarettes.

### Methods

The qualitative study was conducted using the FGI method (focus group interview). The meetings were moderated by specially trained psychologists. Forty-eight students participated in the meetings of six focus groups, divided by gender and smoking status (smokers/non-smokers). The participants were young people aged 15–19 years, attending high schools in Warsaw, Kielce, and Lublin.

### Results

In conversations, young people emphasized the impact of e-cigarettes in smoking initiation, which usually occurs at the age of 12–14 years. E-cigarettes are perceived as cigarettes 'for younger', non-addictive, less serious, and providing more entertainment. 'Cloud chasing' is particularly popular. They perform social functions and they help establish relationships. Teenagers do not see the harmfulness of e-cigarettes.

Participants mentioned their advantages over traditional tobacco products, they can be smoked everywhere and do not leave an unpleasant smell. Some of the respondents admitted to the simultaneous use of electronic and traditional cigarettes. Moreover, many parents allow children to smoke electronic cigarettes.

### Conclusion

Vaping has become a natural way of relaxation and socialization for adolescents. E-cigarettes do not have such a negative connotation as traditional tobacco products. Young people do not see them as harmful, which is a challenge for effective preventive measures.

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## Have the COVID-19 pandemic governmental measures impacted smoking behavior?: A study of 21 countries

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### Background

The COVID-19 pandemic has impacted almost all aspects of our lives. We wished to examine the impact of the pandemic on smoking behaviors across 21 countries.

### Method

A random sampling approach followed by snowball sampling was

used to obtain a wide range of participant characteristics from the general population. The online survey was distributed using a range of methods. The majority of countries from where data were collected had declared a state of emergency for COVID-19. We asked participants between the months of April and June 2020, whether their smoking habits changed during the pandemic when governmental lockdowns or quarantines were in place. We asked how many cigarettes per day participants smoked before the pandemic compared to the present period.

### Results

Participants were 9150, mean age was 36.9 (13.3) years and the majority were females (77.7%). Smoking rates ranged from 1.4% in Hong Kong to 32.7% in Romania. A repeated-measures ANOVA of country-by-time (before the pandemic vs currently) of the number of cigarettes smoked was significant [ $F(36,1533)=4.12$ ;  $p<0.001$ ;  $\eta^2=0.09$ ].

### Conclusions

The countries that drove the interaction and presented with substantial increases in cigarettes smoked per day were: Cyprus, Greece, Austria, France, Latvia and Ireland. In the rest of the countries, participants did not change their smoking behaviour during this period, and these were: Switzerland, UK, Turkey, Germany, Spain, Italy, Portugal, Finland, Poland, Romania, Colombia, Hungary, USA, Hong Kong, and Montenegro.

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## Analyse des effets de la directive "taxation" de 2011 sur les prix du tabac dans les pays-membres de l'Union européenne

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La directive 2011/64/UE du 21 juin 2011 concernant la structure et les taux des accises applicables aux tabacs manufacturés a pour objectif, à moyen terme, d'approcher une harmonisation des prix dans l'union européenne.

Cette présentation analyse, 8 ans après, les effets réels de la directive sur le prix des cigarettes dans les pays-membres. Elle mesure les effets de chaque variable de la taxation sur l'évolution des prix et tente d'ouvrir des pistes d'évolution. Elle constate les infractions de certains pays aux règles contenues dans la directive. Il paraît important de décrire les effets individuels de chaque variable de la taxation et de mettre en équation leurs interactions. L'équation [Prix d'entrée = Minimum de perception – accise spécifique/50 accise ad-valorem] situe le niveau précis de prix de vente public en dessous duquel la marge du fabricant diminue fortement (plus ou moins rapidement selon la préférence donnée à telle ou telle des 3 variables): Le fabricant aura beau baisser le prix, le montant des droits d'accises ne diminuera pas.

La formule qui donne naissance au prix d'entrée nécessite l'utilisation du minimum de perception qui n'est pas une variable obligatoire; trois pays ont choisi de ne pas y recourir, leur cas est analysé en détail.

En conclusion, cette étude propose des pistes d'évolution de la directive de 2011 qui permettraient d'assurer une harmonisation plus rapide de la fiscalité tabac et d'éviter les écarts de prix trop importants entre pays européens.



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### Programme éducatif en ligne sur l'abandon du tabac pour les infirmiers portugais

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La prévention du tabagisme a un nouvel élan avec le programme 2030. Pour cela, il est important de former des infirmiers. Malgré l'existence de moyens efficaces pour aider les patients à arrêter de fumer, les infirmiers sont généralement mal préparés à y faire face. Néanmoins, s'ils étaient correctement formés, les plus de 72 000 infirmiers au Portugal feraient une différence significative dans l'épidémie de tabagisme. L'expérience de plusieurs pays a démontré l'efficacité d'une combinaison de formation de formateurs.

Ce projet vise à combler le manque d'éducation des infirmiers sur le tabac et à renforcer les capacités des infirmiers portugais pour des interventions de renoncement fondées sur des preuves dans la pratique clinique, augmentant le nombre d'infirmiers qui se déclarent lors de l'évaluation du tabagisme des patients. Utilisant un modèle pré-post, ce projet a mis en œuvre un programme éducatif en ligne sur le traitement de la dépendance au tabac pour les infirmiers portugais.

Cent six infirmiers étaient inscrits à l'étude, principalement des infirmiers en oncologie (40%). Après le programme, nous avons observé une augmentation du nombre d'infirmiers qui: 1) conseillent aux patients d'arrêter de fumer ( $p = 0,02$ ); 2) évaluent si les patients souhaitent arrêter de fumer ( $p = 0,02$ ); 3) recommandent une ligne téléphonique pour arrêter de fumer ( $p = 0,004$ ); 4) orientent un patient vers des ressources de sevrage tabagique dans la communauté ( $p = 0,02$ ); et 5) informent les patients et leurs familles de l'importance de créer un environnement familial sans fumée après la sortie de l'hôpital ( $p = 0,001$ ).

En conclusion, le programme a réussi à changer les attitudes des infirmiers face à leur rôle dans la lutte antitabac. Bien que les bénéficiaires à court et à moyen terme du projet soient des infirmiers, les bénéficiaires derniers sont les fumeurs soutenus dans leurs efforts de sevrage tabagique.

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### Épidémiologie du tabagisme en Algérie

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Dans le cadre de la surveillance des facteurs de risque des maladies non transmissibles, une enquête nationale sur la mesure des facteurs de risque des maladies non transmissibles dont le tabac a été réalisée par le Ministère de la santé, de la population et de la Réforme Hospitalière avec l'appui du bureau de l'OMS en Algérie en 2017.

L'objectif principal de cette enquête est de déterminer la

prévalence nationale de la consommation du tabac à fumée et sans fumée dans la population générale âgée de 18 à 69 ans.

Il s'agit d'une enquête transversale auprès des ménages tirés au sort selon un sondage stratifié à trois. Au total 7450 personnes, âgées de 18 à 69 ans ont été tirées au sort. L'analyse des données a été faite sur le logiciel EPI 2000.

Parmi les 7450 sujets âgés de 18 à 69 ans tirés au sort (sondage ONS), 6989 ont été concernés par cette enquête, soit un taux de participation de 93,8%.

La prévalence de la consommation actuelle du tabac à fumée est 16,5%. Elle est de 32,2% chez les hommes et 0,4% chez les femmes. 86,4% sont des fumeurs quotidiens. La prévalence de la consommation de la chicha est 4%. La quantité moyenne de consommation journalière de tabac à fumé manufacturés est 15 cigarettes par jour.

Deux tiers des fumeurs actuels, soit 60,3% ont déclaré avoir tenté d'arrêter de fumer au cours des 12 derniers mois précédant l'enquête. La prévalence de la consommation du tabac sans fumée: 8,9% des enquêtés consommateurs de tabac sans fumée.

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