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2nd ENSP Conference on Tobacco Control

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Table of Contents

Table of Contents

Table of Contents

WEDNESDAY 24 MAY 2017
NGOS AND ADVOCACY I

ABSTRACT 1

The New Slovenian Tobacco Bill – Great Success Made Possible by Multi-stakeholders' Cooperation

Jan Peloza [1]

[1]Youth Network No Excuse Slovenia/ Institute for Youth Participation, Health and Sustainable Development, Ljubljana, Slovenia takeholders' Cooperation

In 2006, the newly established Youth Network No Excuse Slovenia published the Slovenian Youth Manifesto on Tobacco. Right after, in 2007, the new Slovenian Tobacco Bill was accepted. In the following years, No Excuse grew in quality and size - with over 400 trained activists, over 100.000 young people in schools, about half of the generation of 12 and 15 years old, were reached and informed about the immoral marketing tactics of the tobacco industry. In 2013 the now well-established NGO made a very important international step forward with the Tobacco Control Youth Network with its first international youth conference, while nationally helped to co-establish a think-thank with important representatives of the Ministry of Health, Public Health Institute, WHO Country office, NGOs and others. With over 100 denouncements of illegal tobacco industry activity, a number of media briefs with the most trustful Slovenian journalists, regular meetings with the Slovenian MPs, great collaboration with international organizations and implemented researches with the best national and foreign institutions, the group have been regularly emphasizing gaps in the hard industry-lobbied 2007 Tobacco Bill. Via several public debates, calls for accountability and transparency of politicians and media, exposing consultants of parties and other, the group managed to push one of the most comprehensive tobacco-control bills in the world through the Parliament - including plain packaging, obligatory license to sell, complete TAPS ban, mystery shopping by minors etc., while affecting other acts and the national budget assuring more support for quality prevention.

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ABSTRACT 2

Tobacco regulations and policies in the Eurasian Economic Union

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Introduction To promote WHO FCTC compliance to tobacco regulations and policies of the Eurasian Economic Union (EAEU) and it's Member States (Armenia, Belarus, Kazakhstan, Kyrgyzstan, Russian Federation) for public health benefit. To review tobacco challenges, regulations and policies in the EAEU and it's Member States in the light of Member States obligations on WHO FCTC.

Material and Methods Scoping review based on search and analysis of available official publications of the EAEU and it's Member States, WHO sources, research papers, media and industry sources.

Results The EAEU development and functioning which started in 2015, includes technical regulations on Tobacco Products and tax policy principles. The EAEU is not a party to the WHO FCTC. In the EAEU there is no parliament and public health is not included in the areas of activities of Eurasian Economic Commission. Regulatory impact assessment is concerned mostly with business interests. There are numerous examples of tobacco industry interference, especially in relation to taxation of tobacco products, so that WHO FCTC compliance by the EAEU Member States might be compromised, with subregional, regional and global repercussions.

Conclusions Differences between tobacco regulations and policies in the EAEU, EU and other supranational organizations should be further researched in order to promote exchange of best practices in WHO FCTC comprehensive compliance. Implementation of WHO FCTC Article 5.3. and involvement of civil society are among priorities. The practical prospects for the supranational EAEU to become a party to the WHO FCTC should be considered in detail.+

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ABSTRACT 3

From Kazimierz to Athens – three decades of tobacco control advancement in Europe: time to tobacco-caused diseases endgame

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In the early 1990s the premature mortality of young and middle-aged adults in many countries of Central and Eastern Europe (CEE) reached some of the highest levels in the world. It was not only twice higher than in the countries of Western Europe, but also above the rates of many developing countries, including China and India. The main cause underlying this health catastrophe in CEE were tobacco-caused diseases. In November 1990, almost precisely a year after the collapse of the Berlin Wall, a summit of tobacco control leaders took place in the town of Kazimierz in Poland. The aim of the meeting was to devise a strategy and plan of action that would allow to counteract the tobacco epidemic ravaging the post-communist states.

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The Kazimierz conference gathered leading tobacco control experts from across Europe and North America. Almost thirty years on from the Kazimierz Declaration, most of its health goals have been fully accomplished. The gap in smoking between young adults in CEE and Western Europe is almost closed, as evidenced by converging lung cancer morbidity and mortality rates. However, tobacco control in Europe is far from being finished business. There is an urgent need to formulate a new plan, akin to the Kazimierz Declaration in the early 1990s,that would allow tobacco control in Europe to take another leap forward. We need a Declaration of Athens that outlines the vision of civil society movement for tobacco end game, and the ENSP is best placed to launch such an initiative.

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ABSTRACT 4

A holistic approach to assessing the impact of a smoke-free ban in Romania

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A smoke-free ban in full compliance with FCTC recommendations entered into force in Romania as of March 2016, after an intense advocacy effort and with strong argumentation support provided by international tobacco control organizations. The ban has been under heavy challenge from policy-makers and interest groups including a constitutional appeal and two attempts to relax its' provisions. As such, fundamentation of the benefits and direct impact of the smoke-free ban on health, economic and social indicators became a crucial defense pillar. As of September 2016, part of the 2035 Tobacco-Free Romania Initiative project, funded by a grant from Campaign for Tobacco Free Kids, several research polls and studies have been conducted to assess the ban's impact. Subsequent external communication to decision makers and media increased the awareness of the positive impact of the ban and helped adress its' key critical challenge areas.

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ABSTRACT 5

Involvement of Consumer Groups in Tobacco Control: Russia and Belarus Experience

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1. Tobacco products are highly addictive and they are the only consumer products that kill consumers when used exactly as intended. No other consumer product kills 1 in 2 of its long-term users. 2. The right to safety and healthy environment are basic consumer rights, which are being violated by the tobacco industry selling its addictive and deadly products every day. There are clear guidelines and recommendations for the organizations and governments on Tobacco Control measures: defined in the WHO FCTC* and Guidelines for its implementation. 3. The protection of consumers from hazards to their health and safety is one of the legitimate needs the United Nations Guidelines for Consumer Protection are intended to meet. The protection of consumers from tobacco products, which are a direct threat to their health, fully corresponds with the UN Guidelines. 4. Consumer organizations have a long history and reputation, respected by the public and government authorities. They are well-suited for Tobacco Control activities being independent, not-affiliated to political parties and business. Promotion of new tobacco or nicotine-based products to consumers, focusing on youth, is under weak regulation, this new challenge requires active position both from the public health and consumer groups. 5. Cooperation of consumer organizations from Russia (KONFOP) and Belarus (Belarus Consumer Society), launched to promote best Tobacco Control practices, according to FCTC provisions, is a success story of involvement of consumer groups in Tobacco Control.

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Second Hand Smoke

ABSTRACT 6

Second-hand smoke exposure in settings not regulated by the Spanish law

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Introduction To assess exposure to second-hand smoke (SHS) in bus stops and markets, settings excluded from the Spanish Law 42/2010 regulating smoking in closed and open public places.

Material and Methods Cross-sectional study in Barcelona assessing SHS exposure in 20 bus stops, 8 open markets, and 9 closed for comparison. We measured PM2.5 and vapour-phase nicotine as markers of SHS during 30 min (both in µg/m3), using a SidePak AM510 monitor and a cassette containing a filter treated with sodium bisulphate, respectively. We computed medians and interquartile ranges (IQR) and compared them according to traffic density, evidence of smoking (tobacco smell/butts), presence of smokers, wind speed, and type of bus stop (with/without shelter) or type of market (open/closed).

Results Median (IQR) PM2.5 concentration was 13.52 µg/m3 (9.62–17.68 µg/m3) in bus stops, being higher in those with evidence of smoking (14.04 vs. 8.84 µg/m3; $p<0.05$). Median nicotine concentration was 0.17 µg/m3 (0.07–0.40 µg/m3), with significant differences according to wind speed (0.36 µg/m3 when wind speed was ς10 km/h vs. 0.09 µg/m3 when it was higher). In

markets, median PM2.5 concentration was 31.98 µg/m3 (8.32–50.96 µg/m3) in open markets and 31.20 µg/m3 (20.80–32.76 µg/m3) in closed markets. Nicotine concentrations were 0.67 µg/m3 (0.11–1.52 µg/m3) and 0.13 µg/m3 (0.09–0.19 µg/m3), respectively, observing significant differences according to evidence of smoking (0.19 vs. 0.08 µg/m3 without evidence).

Conclusions Exposure to SHS is low, but still measurable in these settings. There is still room for improvement in smoking regulation in public open and semi-open spaces.

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ABSTRACT 7

Individual Factors Associated with Support for the Smoking Ban in Bars among Smokers and Non-smokers in Greece

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Introduction Compliance of bars in Greece to the smoke-free legislation is non-existent, leaving nonsmokers exposed to secondhand smoke when visiting bars. The aim of the current study was to determine individual factors associated with support for smoking bans in bars among adult smokers and non-smokers in Greece to assist policymakers in efforts to improve compliance of the bans.

Material and Methods A secondary analysis of the 2013 Greek Global Adult Tobacco Survey was conducted using multiple logistic regression to analyze individual factors associated with support of smoking ban in bars.

Results Smokers were less likely to support the ban than non-smokers. Individual factors associated with support for smoking bans in bars among smokers and non-smokers in Greece included older age, beliefs of secondhand smoke and knowledge of diseases caused by smoking. Those aged over 65 years and older were more likely to support the ban than those aged 15-24 years ($p<0.05$). A person who believed secondhand smoke causes lung cancer was significantly more likely ($p<0.05$) to support the ban. A significant increase in the likelihood of supporting the ban also occurred with increased knowledge of the harmful effects of tobacco in both smokers and non-smokers.

Conclusions Interventions to advance health literacy and change beliefs surrounding the harms of tobacco smoking could improve voluntary compliance to smoke-free legislation by smokers in Greece.

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ABSTRACT 8

Deciding and implementing Smoke Free Work Hours in a Danish context, a qualitative study

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In this study we investigate the organizational decision processes and implementation of smoking policies. More specifically we look at the implementation of smoke free work hours in Danish municipalities. The study can help enlighten other municipalities both locally and outside of Denmark when considering prevention strategies. Many countries legislate against smoking, including Denmark where legislation prohibits smoking in workplaces, public schools and many public spaces. Since 2011, 15 Danish municipalities have implemented smoke free work hours, meaning that it is prohibited to smoke during work time (7,5 hours a day) if employed by the municipality. Research concerning policy implementation and smoking prevention in work places is scarce. With this study, we therefore wish to look into the organizational meaning produced in the decision process concerning smoke free work hours, as well as the process and outcomes as experienced by employees and employers. The study is primarily based on qualitative interviews with decision makers in more than 15 municipalities, as well as municipal employees. We also plan to do observation at workplaces to look into the outcomes on work place community. Our preliminary findings show that smoke free work hours is often decided and implemented as a part of a larger health strategy and is viewed as a means by which a municipality can establish themselves as a frontrunner in health regulation. Furthermore implementation success often depends on the political context in which the regulation is introduced as well as the decision-makers personal investment in the policy.

Funding Danish Health Ministry

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ABSTRACT 9

Attributable mortality and morbidity to second-hand smoke in Europe

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Introduction To identify methods, diseases, and outcomes for

estimating the burden of diseases due to second-hand smoke (SHS) in the 28 European Countries within the Horizon 2020 TackSHS Project.

Material and Methods We performed a literature search on studiesof the last 10 years that estimate the burden of disease form SHS at Country level. We selected the diseases with the strongest evidence of a causal association with SHS exposure and with sufficient information, and we identified the relative risks (RR) of mortality/ morbidity for exposed to SHS in comparison to non-exposed.

Results Eighteen studies were selected. In almost all studies the comparative risk assessment (CRA) method was used, and exposure was assessed through a survey. The diseases mainly studied were: lung cancer (LC), ischemic hearth disease (IHD), and stroke in adults; low birth weight (LBW), sudden infant death syndrome (SIDS), lower respiratory tract infection (LRI), otitis media (OM), and asthma in children. Also the burden for breast cancer, chronic obstructive pulmonary disease, and asthma in adults was studied. The outcomes were number of cases and deaths, disability adjusted life years, and costs. The diseases selected for TackSHS were: LC, IHD, asthma and stroke in adults, and LBW, SIDS, LRI, OM, and asthma in children. The corresponding RRs were identified.

Conclusions Although outcomes and diseases change depending on the objective of each study, the CRA methodology and the SHS exposure assessment using surveys are used by almost all the studies and they will be adopted also in TackSHS.

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ABSTRACT 10

Smoking cessation in teenagers: A Different Approach to a challenging task

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Introduction The aim of this project was to develop and implement a smoking cessation program for teenagers living in a government boarding school for at-risk youth.

Material and Methods 1. Establishment of a multidisciplinary team 2. Engaging key managers within the Education Ministry 3. Conducting a pilot study 4. Educating smoking cessation experts for adapted intervention 5. Implementing the program: a. School staff engagement b. Recruitment of youth into the program c. Conducting smoking cessation groups in the school which included group and individual meetings d. Program evaluation using interviews and questionnaires.

Results During 2014-2016 we conducted 20 interventions in 10 schools. Overall 260 teenagers participated in the program. Following the intervention, 28% of participants reported smoking cessation and a further 61% reported a reduction in quantity.

Conclusions Smoking cessation in youth is complicated, and particularly among youth at risk who lack family support. Programs in Israel for young people focus on prevention rather than cessation. This program, developed by a multidisciplinary team within the health and education fields succeeded in recruiting and supporting at-risk youth to reduce or quit smoking. By empowering both counselors and teachers at the boarding schools we ensured continuity both in the school's approach to smoking and support for those who quit, after the program was completed.

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Tobacco Cessation – Health Professionals and IT Communication

ABSTRACT 11

Attitudes of Internet users in Poland toward the new Polish Tobacco Control Law and the EU Tobacco Products Directive – types of arguments and semantic maps portray

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Introduction After over a two-year public debate in mass media, Internet, NGOs, government agencies and legislative bodies, the Polish Parliament amended on 22 July 2016 the Tobacco Control Law to harmonize its provisions to requirements of the European Union Tobacco Products Directive (TPD) of 3 April 2014. The new law came into force on Poland on 8 September 2016. Our objective was to evaluate the attitudes of Polish Internet users toward the above legislative acts.

Material and Methods The study analysis was based on comments of 546 Internet users who expressed their relationship to the legislative acts on websites of the most popular Polish newspapers, TV and radio stations, Internet portals and blogs between July 2015 and September 2016. Using advanced software for combined qualitative and quantitative anlaysis (Atlas.ti 7.0), attitudes of supporters and opponents of the acts were compared in two categories: 1/ types of arguments and 2/ semantic relations between arguments.

Results Study results show that the laws opponents had more comments (336) than its supporters (210) and their arguments were stronger and more detailed. Opponents dominated with political, economic and legal arguments. All comments on tobacco products features have been exclusively made by the law opponents. Supporters of the laws overbalanced only with socio-cultural arguments. Mapping of semantic relations between arguments indicates that pattern of such relations among the laws opponents is complex and their arguments are more specific, pragmatic, referred to particular risks and expressed in emotional way. The laws supporters tend to express their arguments in clear, simple and calm way and more often protect basic, mutual and pro-social values.

Conclusions Qualitative analysis of attitudes toward tobacco control policy is a key for in-depth understanding why people oppose or are in favor of tobacco control policy and its results can help in effective enforcement of the new tobacco control law in Poland.

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ABSTRACT 12

Evaluating smartphone-based stop smoking interventions – opportunities and challenges

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Introduction In many countries smokers have limited access to evidence-based stop smoking support. Moreover, even in countries were such support is offered free at the point of access, such as the UK, only 5% of smokers use it. This necessitates development of new methods for intervention delivery. Smartphone applications (apps) are a new possible medium for providing behavioural cessation support. However, very limited research exists on their effectiveness and acceptability, and we are still in the process of establishing best practice methods for creating and assessing such interventions. The steps taken in the process of evaluating two stop smoking apps were documented to identify methodological challenges and potential solutions.

Material and Methods Between 2014-2016 we developed and subsequently conducted mixed-methods evaluations of two app supporting UK-based smokers wanting to quit. One of these focused on craving management, and the other on supporting adherence to nicotine replacement purchased over the counter. These two interventions were evaluated through pragmatic feasibility two-arm parallel randomized controlled trials (RCTs) embedded within the apps that were live on app stores, and subsequently through qualitative interviews.

Results Conducting a randomized controlled trial of smartphone apps that are live on app stores was feasible. However, several challenges to evaluation were identified, including selection of appropriate control arms, study promotion, data collection and management, and remote verification of smoking status. Considerable resources were required to support recruitment, eligibility check, and follow-ups outside of the app. Close collaboration with IT partners throughout the project is vital. Finally, qualitative interviews offered valuable insights to interpret quantitative data, but also to inform future evaluation of apps.

Conclusions Evaluating stop smoking apps through randomized controlled trials is feasible, but has important methodological and practical challenges that have to be factored in from early on during project planning and budgeting.

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Adolescents: Tobacco & E-cigarettes

ABSTRACT 13

Outreach of the "SmokeFreeGreece" educational campaign in Greek Schools

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Introduction Tobacco prevention and cessation are two key aspects of tackling the tobacco epidemic. Tobacco prevention often stems from the school community, which consists of a range of age groups with different needs and approach requirements.

Material and Methods An educational intervention (SmokeFreeGreece), focusing mainly on a healthy lifestyle linked to non-smoking has been developed and implemented in Greece. The intervention is delivered in specially designed educational centers, with the production of educational material addressed to both students and teachers.

Results Over the past 7 years more than 19,500 students, 1,750 teachers and 1.050 schools have actively participated in the educational program. The material has been distributed to date to more than 285,000 Greek school students, throughout Greece including visits to 13 remote islands of the Aegean. The above actions are subsequently supported by an Annual Student Conference on Tobacco Prevention "Education for A Smoke Free World".

Conclusions The educational intervention has reached a substantial percentage of the Greek school population. During the years of our intervention smoking prevalence among 16-24 year olds has decreased by 33.3% (Hellenic Statistical Authority, 2016) and we do believe that our activities are related with this reduction in prevalence.

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ABSTRACT 14

Understanding the impact of school tobacco policies on adolescent smoking behaviour: a realist review

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Introduction Secondary schools increasingly implement school tobacco policies (STPs) to decrease adolescents' smoking. We explored adolescents' cognitive and behavioural responses to STPs that impact adolescents' smoking and how these responses depend STPs' implementation.

Material and Methods We performed a realist review. This is an explanatory approach that synthesizes existing evidence into a program theory that links elements of STPs' implementation to outcomes by specifying its underlying generative mechanisms. 37 articles were included, reporting quantitative and/or qualitative evidence on STPs, adolescent smoking and mechanisms. From these articles, evidence was extracted about mechanisms that decrease smoking and associated countervailing-mechanisms that reduce, nullify or revert this positive impact.

Results The program theory showed that STPs may trigger four mechanisms and seven associated countervailing-mechanisms. Adolescents' smoking decreases if STPs make them feel they can get sanctioned, feel less pressure to conform to smokers, internalise anti-smoking beliefs, and find it easier to stick to the decision not to smoke. This positive impact may reduce, nullify or revert if STPs cause adolescents to find alternative places to smoke, develop new social meanings of smoking, want to belong in smoker groups, internalise beliefs that smoking is not bad or that it asserts personal autonomy, or alienate from schools and schools' messages. The program theory moreover provided insights on how elements of STPs' implementation trigger mechanisms and avoid countervailing-mechanisms.

Conclusions STPs' impact can be influenced by adequate implementation and embedding them in continuous monitoring and adaptation cycles, so that schools can proactively deal with suboptimal responses.

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ABSTRACT 15

New issues and age-old challenges: a review of young people's relationship with tobacco

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The Roy Castle Lung Cancer Foundation's report 'New issues and age-old challenges: a review of young people's relationship with tobacco' highlights a roadmap for action: A return to national leadership and spreading and sustaining local excellence. Smoking is a habit developed in early age with two-thirds of smokers starting before the age of 18 and 40% per cent of smokers become regular smokers before the age of 16. The report highlights the new realities for tobacco and young people which includes: smoking, a habit forged early in life; tobacco-reduction, a (potentially) slippery slope; depictions of smoking in modern media; combating complacency in a fairer society. The report also includes shifting issues in youth smoking from illicit tobacco, shisha, cannabis and electronic cigarettes. The findings illustrate that tobacco use among young people is evolving and the consequences of this continue to be felt amongst society's worst-off citizens. The report makes a call for an overarching vision that is comprehensive and ambitious for tobacco prevention and control in the UK. The survey findings for the report were collected by MHP Communications.

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ABSTRACT 16

Smoking prevention among Romanian school students with hearing deficiencies from Romania

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Introduction Development of smoking prevention programs for disadvantaged groups, including adolescents with sensorial deficiencies, represents an important challenge. The goal of this

paper is to present the development of the first smoking prevention program for adolescents with hearing deficiencies aged 13-15 from Romania.

Material and Methods A peer-led smoking prevention programme on video, with proved effects on smoking prevention among Romanian adolescents without sensoral deficiencies, was adapted for children with hearing disabilities, using specific language for people with hearing deficiencies. The program is under current implementation among Romanian pupils with hearing deficiencies from two big cities from North-West Romania.

Results The programme uses the social influence approach and concentrates on enhancing self-efficacy and the acquisition of cigarette refusal skills. It consists of five lessons with the following structure a. introduction of the theme in a class on DVD, b. activities in small groups, peer-led, c. return to one group and continuation of the lesson on DVD, d. activities in small groups, peer-led, e. (sometimes) home activities.Regarding attitudes, the programme focuses on reasons why people do or do not smoke, effects of smoking, passive smoking, addiction and alternatives to smoking. Regarding social influences, it discusses direct pressure to smoke from peers, indirect pressure from adults and dvertisements. Self-efficacy is incorporated by demonstrating resistance skills and by their practice in various challenging situations.

Conclusions The program developed easy to use educational materials, which might be used for smoking prevention among Romanian adolescents with hearing deficiencies from different areas of Romania.

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ABSTRACT 17

Favourable perceptions of electronic cigarettes relative to cigarettes and the associations with intention to use electronic cigarettes in Hong Kong adolescents

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Introduction We investigated various favourable perceptions of ecigarettes (ECs) relative to cigarettes in adolescents and their associations with EC use intention among never EC users.

Material and Methods In 2014/15, 40202 secondary 1-6 (US grade 7-12) students (51.5% boys, mean age 14.9±1.8 years) in Hong Kong were surveyed. The study factors were 13 perceived advantages of ECs over cigarettes (agree vs disagree). Intention to use ECs (outcome) referred to the lack of a firm decision not to use ECs in the next 12 months or when offered by a good friend. Weighted prevalence of the favourable perceptions of ECs in all students was calculated. Cox regression yielded prevalence ratios of intention to use ECs for each favourable perception in never EC users, excluding those unaware of ECs. Socio-demographic characteristics, cigarette smoking and school clustering effect were adjusted for.

Results Of all students (n=40202), 47.2% perceived any advantages of ECs over cigarettes, with "less likely to cause accidents", "less health harms on users" and "less health harms on others" being most common. In never EC users (n=24663), each favourable perception was associated with an intention to use ECs, the strongest were "more attractive", "better accepted by parents" and "better accepted by schools".

Conclusions Favourable perceptions of ECs were strongly associated with intention to use ECs in adolescents who had never used ECs. Our findings support interventions to raise public awareness of the potential harms of ECs and increase parental and school disapproval of adolescent EC use, and effective regulations to prevent adolescent EC use.

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ABSTRACT 18

The use of e-cigarettes in adolescents: public health consequences

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Introduction Public-health actors were alarmed by the progression of experimentation of e-cigarettes in different countries since 2012 because of fear that they would be a gateway to tobacco use. In Europe, there is now near a consensus that ecigarettes need supervision as required by the TPD (control of products and advertising) or not (sales to minors). But the question «is the ecigarette a gateway to smoking or, conversely, a competitor to smoking among young people?» has not yet received a definitive scientific answer.

Material and Methods A prospective cohort is not adequate to answer the question, because the susceptibility to the drug is preexistent to first use and cannot be predicted. In cross sectional studies,if the e-cigarette is a gateway to smoking among teenagers: - tobacco consumption should increase with e-cigarette experimentation, - teenagers should massively use nicotine e-cigarette, - conversion from experimentation to regular use will be high, - the e-cigarette use among smokers should be low. If e-cigarette is a competitor of tobacco one expects: - decrease in tobacco consumption, - use of non-nicotine products, - low switch rate from experimentation to regular use, - high rate of use among ex-smokers.

Results Whether on USA, UK or Paris data's (2017 results will

be presented), we observe: - smoking rate decrease. - nicotine-free e-liquid use, - low rate of regular use among experimenters, - high rate use in smokers and ex-smokers.

Conclusions Data's are compatible with a competitive effect and no compatible with a gateway effect.

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ABSTRACT 19

Association between menthol cigarette smoking and current use of electronic cigarettes among us adolescents

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Introduction Some e-cigarette manufacturers have marketed e-cigarette flavors branded after popular menthol cigarette brands, such as Newport. Such targeted marketing has the potential to increase the likelihood of e-cigarette initiation among menthol cigarette smokers. This study examined the association between menthol cigarette smoking and e-cigarette use among US middle and high school students.

Material and Methods Data were from the 2014-2015 (N=39,718) National Youth Tobacco Survey, a school based survey of students in grades 6-12. Reasons for e-cigarette use by self-reported menthol status were compared using chi-squared tests. Association between menthol cigarette smoking and current (past 30 day) e-cigarette use was measured using a marginal structural logistic regression model.

Results Current e-cigarette use prevalence was higher among menthol (58.5%) than nonmenthol (47.5%) cigarette smokers ($p<0.001$). The following reasons for e-cigarette use were more prevalent among menthol versus nonmenthol cigarette smokers, respectively for: smoking cessation (26.2% vs. 18.4%, $p=0.0163$); imitation of celebrity role models (4.4% vs. 1.1%, $p=0.0013$); attractive flavors (45.8% vs. 34.5%, $p=0.004$); and situational use in areas with smoking prohibitions (29.5% vs. 21.7%, $p=0.0109$). Logistic regression analyses among all cigarette smokers revealed higher odds of current e-cigarette use among menthol than nonmenthol cigarette smokers (aOR=1.56, 95%CI=1.24-1.97); analyses restricted to cigarette smokers who first tried cigarettes before any other tobacco product yielded consistent results (aOR=1.40, 95%CI=1.06-1.85).

Conclusions Current e-cigarette use was significantly higher among menthol than nonmenthol cigarette smokers. These findings underscore the importance of efforts to reduce all forms of tobacco product use, including e-cigarettes, among youth.

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NGOs and Advocacy II

ABSTRACT 20

Implementation of Tobacco Control Policy in Russia. Where are we after 3 years?

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Introduction Since 01.06.2013 Russia is implementing the new Tobacco Control (TC) Policy, one of the most comprehensive ones in the Europe. The study aims to demonstrate the advancements and challenges in the 3 years of TC law implementation.

Material and Methods Combined results of different evaluation studies, including MPOWER assessment were analysed.

Results Total smoke-free policies are enforced in public places, with high compliance in educational institutions, restaurants/bars and lower compliance in workplaces and health institutions. Results show 100% compliance with the ban on direct tobacco advertising, 70% compliance with indirect bans on tobacco promotion and lower compliance with partial ban on indirect promotion. 9 out of 10 points of sale comply with tobacco products display ban at sale points. 95% of packs comply with the packaging and labelling requirements. Excise taxes on tobacco products grow annually, however cigarette prices grow much slower. The number of prevention service units, providing smoking cessation has grown from 503 to 3065 in three years. TC is an issue in curriculum of all educational institutions, under national and regional IEC strategies. These developments reflect in drop of sales of tobacco products and smoking prevalence. Drop in sales of tobacco products was 6%p in 2014 compared to 2013 and 6.2-9%p in 2015 compared to 2014; 5.3%p in 2016 compared to 2015 as measured by Nielsen and Russian official statistics. Smoking prevalence rates have dropped by 24.3% from 2009 to 2015 as measured by the Russian Public Opinion Research Centre.

Conclusions The results will contribute to further strengthening of TC legislation in Russia.

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ABSTRACT 21

Georgian Public attitudes to a tobacco free environment

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Introduction The aim of this study is to examine the Georgian public attitudes with regards to a tobacco free environment.

Material and Methods Quantitative research method was used

to study the research question. The study target was the Georgian population 18 age and older. Sample size: 1050 respondents. Field work lasted 15 days (April, 2016). After the completion of the fieldwork, monitoring data encoding and its entry into SPSS. Different methods were used for data processing for example: data frequency distribution, average counting, cross tabulation.

Results The study showed that 30.6% of the respondents use tobacco. 14.6% was a tobacco consumer in the past, while 54.8% were never smokers. Men were higher represented among smokers (55%) than women. From 322 smoker respondents 312 are daily smokers (96.8% of smokers; overall sample- 29.6%). The overwhelming majority of participants agree that tobacco use is a major problem in Georgia (90.6%) as for the general public, and with respect to young people.Smoking ban support in public places varies from 89-92%. As for smoking ban support in cafes and restaurants, and other public catering places, support level is at minimum 79.1%. 91.8% supports banning of advertisement and promotion of tobacco.Among clients of restaurants, cafes and other catering places smoking ban is supported by 77.9% of the population. 69.2% of respondents indicated that in case of prohibition the frequency of their visits to catering facilities will not be changed, while 17.3% think that it will be even increased. 9.8% of respondents said that the ban would reduce the amount of visits.

Conclusions In overall, it is clear that absolutely majority of the Georgian population supports strong tobacco control measures. The most important finding is that after the smoking ban in hospitality facilities the number of population visits compared to today's visits will be increased.

Funding The study was funded in scope of Bloomberg Philanthropies Grant through Tobacco Free Kinds. Study was conducted by Georgian Institute of Social Studies and Analyses by cooperation with the FCTC Implementation and Monitoring Center in Georgia and Georgian Public Health Institute.

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ABSTRACT 22

The new tobacco legislation in Slovenia and the role of NGO's

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Tobacco lobbying and propaganda represents a major obstacle in adopting a modern - more health oriented legislation in many EU Member States. Despite well-established requirements for government officials to report meetings with lobbyist, the general public is often unaware of them taking place. Also, while national governments often can't afford to oppose the tobacco manufacturers directly in the media during the ongoing legislation process, Non-governmental organizations can openly oppose the false claims made by 3rd parties – tobacco proxies (individuals, groups, organizations) which usually the tobacco companies use to hide their direct involvement because of a broken public image. Therefore, the role of Non-governmental organizations is an important one. NGOs and our grassroots members are inherently good at pooling resources, disseminating knowledge and linking up together in coalitions (national and EU-wide) which represent a strong united front and are necessary to counteract the "deep pockets" of the Tobacco Industry and its huge propaganda machine in key moments of the legislation process. This presentation will focus on how to successfully organize a supporting media campaign, on the challenges encountered when raising public health awareness, on the importance of mobilizing the general public, on the lessons learned during many years of struggle against the tobacco industry from a NGO perspective.

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ABSTRACT 23

MADES Study: Evaluation plan of the new Tobacco Product Directive 2014/40/UE in Italy

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Introduction The transposition of the New Tobacco Product Directive (TPD) 2014/40/UE in Italy - the law n.6/2016 - entered into force in 2016. This law contains all the TPD regulations, and other new measures: 1. Stricter enforcement of the tobacco sale ban to minors, with higher fines and withdrawal of the sell licence for tobacco retailers; 2. Smoking ban in cars with minors and pregnant women 3. Smoking ban in outdoor areas closed to Pediatric and Gynecologic Hospital Departments 4. Sale ban of e-cig and refill containers to minors. Main aim is to show the evaluation plan of the new TPD in Italy.

Material and Methods Presentation of the different tools of the evaluation plan.

Results - The behavioural risk factor PASSI, the ISTAT, and the DOXA surveys on representative samples of Italians, will allow to study smoking and e-cigarette prevalence in adults; quitting attempts among smokers; the impact of pictorial warnings on smokers; second-hand smoke exposure; attitudes, perception, and behaviours of Italians after the coming into force of the new law; - The GYTS will monitor

smoking and e-cig prevalence, tobacco access and availability among adolescents aged 13-15 years; - the National Institute of Health (ISS), in collaboration with some Regional Health Departments in Italy, will monitor the compliance with the smoking ban in cars, and with the outdoor ban in hospitals; - Temporal trend in phone calls to the Italian Quitline will be monitored. Moreover, the impact of pictorial warnings will be studied among smokers calling the Italian Quitline, or attending Italian Smoking Cessation Centers. - The online acquisition and transmission of ingredients from tobacco companies will be followed at ISS.

Conclusions This evaluation plan will allow to study all the dimensions of the impact of the TPD in Italy.

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ABSTRACT 24

Tobacco Industry interference in TAPS policy making in Bulgaria

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Tobacco industry (TI) has a powerful grasp of politics and the media in Bulgaria, but there is limited knowledge of its methods and communication messages. To explore and analyse them, we are using a recent case from the policy advocacy practice of the Smoke-free Life Coalition, ENSP member in Bulgaria. A mixed social research methodology was employed, involving: a case study; qualitative content analysis of documented communication; ethnographic participant observation; and semi-structured interviews with TAPS advocacy campaigners, policy makers and TI representatives, in the action research tradition. The case study analyses TI reaction to a surprising proposal for a complete ban of tobacco advertising, promotion and sponsorship, submitted to Bulgaria's Parliament in November 2016 – and consecutively withdrawn. Being involved in all stages of the case and present at meetings between TI and MPs enables the researchers to gather rich information and analyse it, to cast light on: the methods for successful interference with democratic decision making, applied by industry representatives; the specific communication messages and arguments they employ to suppress smoke-free legislation. The paper observes how TI speculates with the interests of different groups, affected by and involved in its operations, to successfully contradict health concerns voiced by MPs. Democratically elected representatives appear unable to uphold the social and health interests of their voters and succumb to TI priorities. The paper concludes that a pro-industry discourse, which favours corporate incomes over concerns for people's health and life, dominates democratic decision making mechanisms in Bulgaria's post-socialist political landscape.

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ABSTRACT 25

Role of the Health Promotion Foundation in tobacco control and capacity building among healthcare professionals in Poland

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During the first summit of world tobacco control leaders in Central and Eastern Europe, held in 1990 in Kazimierz in Poland, the inadequate engagement of medical professionals in helping people to quit smoking was identified as one of the main problems of the region. The Health Promotion Foundation was established in 1992 to co-ordinate the anti-tobacco movement in Poland and to implement the resolutions of Kazimierz. The Foundation initiated actions to introduce anti-tobacco legislation in Poland passed by the Polish Parliament in 1995. It was one of the first legislative acts in the world to recommend tobacco dependence treatment. The Foundation also took active part in the preparation of the Framework Convention on Tobacco Control, and was one of the contributing authors of Article 14. The Foundation has also engaged in competence building among healthcare providers. It has trained thousands of Polish doctors and nurses using a core, nation-wide tool: the Consensus on Diagnosis and Treatment of Tobacco Dependence. Finally, the Foundation engaged in activities to increase cessation drug availability, e.g. by conducting research, disseminating knowledge on, and promoting cytisine. Since the 1990s millions of Poles quit smoking, also thanks to the Foundation's comprehensive activities. Further work is now focused on developing effective ways to engage greater numbers of medical doctors in the treatment of tobacco dependence and building innovative technologies supporting them and people who want to quit smoking.

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ABSTRACT 26

Innovations in Implementation: Using New and Traditional Media to Ensure Strong Implementation of Tobacco Control Laws in Russia

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Introduction To ensure strong implementation of tobacco control laws in Russia, using comprehensive media campaign.

Material and Methods Educational campaigns, conducted in partnership with the Ministry of Health, the Parliament, enforcement agencies and local authorities; compliance monitoring, and air quality monitoring; development of mobile app for reporting smoke-free violations; earned media campaign.

Results • Comprehensive tobacco control law was enacted in 2013. • Media coverage on tobacco control increased from 14 000 in 2008 to 71 000 in 2015. • Share of adult smokers decreased from 41% in 2009 to 34% in 2015. • 98,5% smoke-free compliance in HoReCa venues two years after the smoking ban. • 95% compliance in tobacco packaging and labeling. • Nearly 100% elimination of tobacco advertisement in media, outdoors and in points of sales. • 2-2,5 times decrease in duration and amount of smoking episodes in TV-series, popular among minors. • 76% of Russians supported smoke-free measures before the measure came into force in 2013. In 2015 83% of respondents supported smoke free. • Tobacco display ban support increased from 59% in 2013 (1,5 years prior to enactment) to 67% in 2015. • Tobacco advertisement ban support was 79% in 2013, 80% in 2015.

Conclusions Media advocacy campaign in Russia was important component of program success. Using traditional and online media and mobile app ensured smooth implementation, public support and high compliance level of the law.

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Tobacco Use: Cellular Mechanisms and Oral Health

ABSTRACT 27

Clinical, microbiological and biochemical parameters in active smokers, non-smokers and environmental-smokers

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Introduction Cigarette users are more susceptible than non-smokers to chronic periodontitis, a bacterial-induced, inflammation-driven, destructive disease of the supporting tissues of the teeth. Limited evidence suggests that environmental smoke may similarly predispose to periodontal diseases. We hypothesized that levels of microbiological mediators and / or inflammatory markers of chronic periodontitis would be intermediate in those exposed to environmental tobacco smoke compared to active and non-smokers.

Material and Methods Self-reported non-smokers (n = 20), current smokers (n = 20) and environmentally-exposed (n = 20) individuals were recruited from a University periodontal clinic. Clinical periodontal measurements, comprising plaque index, probing depth, clinical attachment level and bleeding on probing, were recorded at four sites per tooth. Whole saliva samples were collected and cotinine levels determined by EIA. Treponema denticola and Porphyromonas gingivalis infection was determined by PCR, while matrix metalloproteinase-8 (MMP-8) and interleukin-8 (IL-8) concentrations were determined by ELISA.

Results Smoking groups were subsequently reassigned in accord with biochemical data. P. gingivalis infection was noted in most subjects, irrespective of smoking status. T. denticola infection was noted in 4/23 (17%) smokers, 0/16 (0%) environmentally-exposed recruits and 2/21 (10%) non-smokers. MMP-8 and IL-8 were significantly lower in smokers compared to both non-smokers and environmentally-exposed individuals (all $p < 0.05$).

Conclusions In this pilot study, where clinical parameters and bacterial infection were similar in all groups, active smoking was associated with a reduced inflammatory response, as determined by salivary MMP-8 and IL-8 burden, compared to non-smokers and environmentally-exposed smokers.

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ABSTRACT 28

Mechanisms underlying predisposition to chronic periodontitis in tobacco and marijuana users

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Introduction Tobacco use is responsible for most cases of chronic periodontitis in developed nations. Cigarette smoke exerts a profound effect on microbial interactions within dental plaque; promotes infection with key periodontopathogens, including Porphyromonas gingivalis; and suppresses the innate and adaptive arms of the immune response to gingival biofilms. Cannabis use is also a dose-related risk factor for plaque-induced chronic periodontitis. How cannabis exposure may predispose to this periodontal diseaseis largely unknown.

Methods We examined the influence of phytocannabinoids (cannabidiol [CBD]; cannabinol [CBN]; and tetrahydrocannabinol [THC]) on periodontal pathogen growth and survival and on the human innate cell response to such bacteria.

Results All three cannabinoid subtypes are each more toxic to oral bacteria and innate cells than is cigarette smoke. Further, while these marijuana-derived molecules appear to be potent suppressors of innate immunity, their mechanisms of action may differ from those ascribed to tobacco-mediated dampening of the inflammatory response to bacteria.

Conclusions These findings are discussed in the context of the etiology of chronic periodontitis and- as marijuana and tobacco are often simultaneously consumed - the need for further research on tobacco/marijuana as composite insults.

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ABSTRACT 29

In vitro effect of smokeless tobacco on gingival epithelial cells

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Introduction Cigarette smoking is one of the major risk factors in the pathogenesis of periodontal disease. Despite numerous reports on the general toxic effects of oral smokeless tobacco very few studies have assessed the effect of smokeless tobacco on the viability and inflammatory response of gingival epithelial cells.

Material and Methods In this study a reference smokeless tobacco (CORESTA CRP2) was used to stimulate gingival epithelial cells. Once the gingival epithelial cells became confluent, the growth medium were conditioned with aqueous extract of CORESTA CRP2 for 3 and 6 hours. Cell viability was measured by alamar blue assay, and cell culture supernatant was examined for the presence of human interlukin-1beta (IL-1beta) using sandwich enzyme-linked immunosorbant assay (ELISA).

Results Cells treated with smokeless tobacco reference product resulted in decreased viability compared to non stimulated group ($P<0.05$). In addition, the smokeless tobacco extract augmented the production of IL-1beta in a time -dependent manner ($P< 0.05$). The micrographs showed that smokeless tobacco extract resulted in a significant change in cell appearance, from the cells being in close contact to becoming separated from each other.

Conclusions Epithelial cells are the first line of defense against pathogens in the oral cavity. The results suggest that smokeless tobacco not only inhibits the growth of epithelial cells but also induce the generation of inflammatory cytokines which leads to smokeless tobacco-exacerbated disease.

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ABSTRACT 30

Cardiovascular Function in Habitual Adolescents Smokers: The Irbid-TRY

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Introduction Our aim was to assess cardiovascular function in habitual adolescents smokers: The Irbid-TRYstudy

Material and Methods The study measured resting heart rate (HR), diastolic blood (DBP), mean arterial (MAP), and pulse (PP) pressure and rate pressure product (RPP) in adolescent smokers of cigarettes(CG), waterpipe (WP), and both (CGWP) smokers versus nonsmokers.

Results Comparisons showed that HR, DBP, MAP, PP, and RPP were similarly lower ($p<0.05$) in adolescent CG, WP, and CGWP smokers versus nonsmokers. Subsequent stepwise regression showed that smoking status predicted ($p<0.000$) 4.8% of HR, 6.1% of DBP, 3.9% of MAP, 2.8% of PP, and 4.0% of RPP. The results indicate that smoking CG, WP, or CGWP equally lowers cardiovascular measures.

Conclusions These results are perplexing given that tobacco smoking is associated with an immediate increase in cardiovascular function indices and CVDs in adulthood. Therefore, further studies are warranted to verify these findings.

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ABSTRACT 31

Tobacco affordability, sales and excise revenues in the 28 European Union countries in 2011-2014

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Introduction The Guidelines for the FCTC Article 6 state: When establishing their levels of taxation, Parties should make tobacco products less affordable over time in order to reduce consumption. The objective is to estimate the impact of changes in tobacco affordability on tobacco consumption and tobacco excise revenues in 2011-2014 in 28 European Union countries.

Material and Methods Tobacco affordability index was calculated using the Eurostat data on harmonized consumer price index for tobacco products (adjusted for inflation) and the adjusted disposable income, gross Purchasing Power Standard per inhabitant. The

European Commission data on tobacco revenues and tobacco sales (cigarettes and fine-cut tobacco combined) were used.

Results Strong correlation between changes of tobacco affordability and tobacco sales is observed in the EU-28. Tobacco consumption declined in the EU-28 in 2011-2014, while tobacco excise revenues were stable. Countries where tobacco became less affordable mainly due to tax and price increases (UK, France, Romania) observed a decline in consumption and growing revenue. Countries, where tobacco became less affordable mainly due to the economic recession (Greece, Spain, Ireland) had a decline in consumption and a reduction in revenue. Countries, where tobacco became more affordable (Lithuania, Bulgaria, Austria) had an increase in consumption and revenue.

Conclusions Tobacco taxation can ensure both tobacco consumption decline and revenue increase only if taxation is a key factor of tobacco affordability reduction. Otherwise, in years of economic recession consumption declines, but revenue does not increase; while in years of economic growth revenue increases, but consumption does not decline.

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THURSDAY 25 MAY 2017

ADDRESSING TOBACCO USE IN PRIMARY HEALTH CARE

ABSTRACT 32

Discrepancy between primary healthcare physicians' attitude and practice in providing smoking cessation

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Introduction The 3"A's" model (Ask-screen for smoking, Advise-provide a quit message, and Assist-provide treatment), is an evidence-based framework for structuring smoking cessation in health care settings. The study aimed to reveal primary healthcare physicians' (PHPs) attitude and practice towards smoking cessation brief interventions based on 3"A's" model.

Material and Methods The study was conducted among PHPs from two cities in Armenia: Yerevan (the capital city) and Gyumri (the second largest city). We used self-administered questionnaires to evaluate the participants' attitude and practice in providing smoking cessation based on the 3"A's" model.

Results Overall, 108 PHPs participated in the study. Majority of participants (93.52%, n=101) had positive attitude towards asking patients about smoking and 78.22% (n=79) of them (74.07% (n=80) of all participants) reported about always asking about the smoking status of patients. Similarly, almost all participants (99.07%, n=107) agreed that it was their responsibility to routinely advise smoking patients to quit and 87.85% (n=94) of them (87.96% (n=95) of all participants) were always advising on quitting. Only 41.67% (n=45) of the participants were always assisting patients to quit smoking. The majority (57.41%, n=62) did not provide assistance in their practices despite their positive attitude (99.07%, n=107).

Conclusions Although having favorable attitude towards asking, advising and assisting patients to quit smoking, PHPs did not fully implement smoking cessation brief interventions in daily practice. Further research is needed to identify barriers that hinder PHPs from transferring their positive attitude towards helping smoking patients into practice.

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ABSTRACT 33

Effectiveness of the TITAN–CRETE intervention on rates of tobacco treatment delivery in primary care

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Introduction To report on the effectiveness of the 'TiTAN Crete – Tobacco Treatment Training Network' intervention program in influencing general practitioner's (GP) knowledge, attitudes, self-efficacy and rates of 4As (ask, advice, assist, arrange) tobacco dependence treatment delivery.

Material and Methods A before-after evaluation design was used. The TiTAN Crete intervention included one core training and two booster sessions as well as the dissemination of practice and patient tools to support 4As treatment into clinical routines among a sample of GPs on the islands of Crete in Greece (2015-2016). Participating GPs (n=14), and a cross-sectional sample of patients from their practices (n=984), were surveyed before-and-after the implementation of the intervention program. Multi-level modeling was used to examine the effects of the intervention.

Results High rate of satisfaction were documented, with the majority of general practitioners indicating the training session met their expectations to a "great extent". Significant increases were

documented in six of the thirteen tobacco treatment knowledge areas assessed between the pre and post assessment. A significant increase in GPs self-efficacy was documented between the pre and post assessment (12.5% vs. 64.3%; p=0.016). Rates of delivery of the 4As increased significantly following program implementation (ask: 58.0% vs. 82.8%, p=0.001; advise: 52.5% vs. 81.5%, p<0.001; Assist: 16.1% vs. 64.8%, p<0.001; Arrange: 4.1% vs. 15.2%, p=0.017) at the index visit.

Conclusions The TiTAN Crete intervention was associated with significant increases in GP's knowledge and attitudes regarding evidence-based tobacco dependence treatment as well as rates of tobacco treatment delivery.

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ABSTRACT 34

TiTAN Greece & Cyprus – Primary Care Tobacco Treatment TrAining Network in Greece & Cyprus

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Introduction Our goals are to: 1) disseminate a high-quality tobacco dependence treatment training program to PHC providers based on guidelines of best practice; 2) disseminate a tool kit of patient/provider resources to support integration of tobacco treatment into PHC settings; 3) provide outreach and booster education to the network of PHC providers.

Material and Methods The TiTAN program is designed to move beyond generic smoking cessation training and provide training and protocols that have been tailored for use in busy primary care practice. The program involves an adaptation of the Ottawa Model for Smoking Cessation that was successfully pilot tested (n=52) in Greece as part of the TiTAN Crete Project (2014-2016). The TiTAN-Greece & Cyprus Project we will further expand the network by training 300 PHC providers (family medicine residents, PHC nurses, allied health professionals) in four geographic regions in Greece (Crete, Athens, Ioannina, Thessaloniki) and Cyprus.

Results A pre-post evaluation (n=300) will be used to examine the impact of the program on: i) provider attitudes, knowledge, intentions; and ii) rates of evidence-based tobacco treatments (5As) delivery. We will randomly select a sub-sample of providers (n=20) and will survey patients (n=800) from their practice in order to validate changes in 5As delivery.

Conclusions The TiTAN project will provide leadership and coordination for the dissemination of both a professional training program and practice tools that are tailored to support busy PHC providers and increase the number of tobacco control champions working in Greece and Cyprus.

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ABSTRACT 35

The effectiveness of interventions for primary care physicians to assist in smoking cessation in Ukraine

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Introduction The aim was to assess quit smoking interventions among primary health care doctors in Ukraine

Material and Methods We examined 190 doctors from primary care facilities in Kyiv City with regards to the quit smoking interventions they provide to their patients.

Results The data showed that 91% report they take an interest in the smoking status of their patients. It is reported in more than 25-30% of medical records. About 25% to 44% or respondents notes the smoking status if the patient smokes. 22% of respondents ignores the patient's answers, without marking medical records. Only 39-63% of the relevant experts note in the medical records. Most health care professionals say that they advise their patients to quit smoking. 50% of physicians and 75% of cardiologists and GP provide such advice to anyone who smokes. Noteworthy is the fact that 42% of physicians advise to quit smoking only if the patient's disease can be associated with smoking. Most of the recommendations have a formal character as 62% of physicians indicate a lack of expertise on the subject.

Conclusions Implementation of standards for health care professionals to aid to quit smoking is extremely important for public health in Ukraine. Creating a system of antismoking education of health workers - the only way of forming their professional relationship to smoking cessation- and one of the most effective measures to protect people from illness and death associated with smoking.

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ABSTRACT 36

Training Health Providers in Former Yugoslav Republic of Macedonia (FYROM) to Counsel their Patients to Quit Tobacco: Implications for Culturally Competent Adaptation

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Introduction Evidence-based interventions to counsel tobacco users have been validated and successfully implemented in a multitude of clinical, community, educational, and work-place settings in the United States. In FYROM, before such a program can be systematically introduced and evaluated, formative research can identify important cultural and societal factors to guide in the program's adaptation and implementation.

Material and Methods Qualitative research is a reliable and valid method to obtain information that is contextual and subjective. Over three weeks in November 2016, five trained research assistants conducted 39 in-depth, qualitative interviews with patients and health providers from pulmonary clinics within Skopje, FYROM, lasting 52 minutes on average. Interviews were recorded, transcribed translated into English, coded, and thematically analyzed.

Results Data reveal salient issues to the adaptation of a tobacco counseling program. Respondents had limited information about pharmacological therapies and their availability in FYROM. They noted a lack of public education about the risks associated with tobacco use and they perceived current outreach efforts as being ineffectual. There was a lack of critical attention toward the needs of the elderly or those considered to be severly addicted. Health providers noted the need for more one-on-one time with patients to counsel them about tobacco use.

Conclusions Culturally competent approaches to program design are an effective means of applying evidence-based modalities in new settings. Qualitative research is an essential component of program adaptation within the core elements of an intervention and provides opportunity for collaborative decisions regarding content and delivery within a new socio-cultural context.

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ABSTRACT 37

Assessing the adaptation and implementation fidelity of an Online Tobacco Cessation Training Program for Healthcare Professionals in three Spanish-speaking Latin American countries: The Fruitful Study

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IntroductionTobacco cessation training programs are scare in Spanish speaking low-income countries. Based on a previous program developed in Spain, the Fruitful Study has adapted, implemented and evaluated the effectiveness of an online smoking cessation training program in three hospitals from Bolivia, Guatemala and Paraguay.

Material and Methods To describe the adaptation and the program fidelity of the Fruitful Study. Methods/design: Mixed methods study. To assess the adaptation process we registered the mismatches and conducted a focus group. To evaluate program coverage and fidelity we conducted a cross-sectional survey.

Results During the adaptation, the main mismatches were: language background and content information. Several aids were developed for making possible students' enrollment including: access to computers; support from technicians due some studies had little experience in pursing online education (less qualitied and > 50 years/old) and; reminders for the correct implementation including (in person sessions, emails, and videos). 281 clinicians registered the program. The program coverage was higher in Bolivia, where 55.0% of clinicians enrolled the course, compared with 29.3% in Guatemala, and 25.4% in Paraguay. Overall, 66.2% students completed the training. Fidelity of the curriculum plan reached the 64%.

Conclusions Program fidelity was similar to the obtained in high-income counties. However, to achieve a high program effectiveness online smoking cessation training programs addressed to these low-income countries should introduce adjusted tools and messages to improve its delivery including technician support, reminders for completing the course, and having a pdf version available for those students who prefer a hard copy.

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Clinic (Pfizer Medical Group; GB-13520139: Development and Dissemination of a Tobacco Cessation Training Program for Healthcare Professionals in Spanish-speaking Countries). Moreover, CM and EF are also funded by the Spanish Government (Instituto de Salut Carlos III, grant PI15-00875) and the Catalan Government (Xarxa Catalana d'Hospitals sense fum, Agència de Salut Pública de Catalunya, contracte Nº 2015VAR171)

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ABSTRACT 38

Very unsuccessful attempts to quit: examining correlates in the 13 countries where almost 2/3 of smokers live

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Introduction Every year, millions of smokers try to quit smoking. Unfortunately, a significant portion of these smokers fails to maintain abstinence for more than 24 hours, resulting in a Very Unsuccessful Attempt to Quit (VUAQ). Previous studies have shown that VUAQ is related to both levels of dependence and the severe symptoms of nicotine withdrawal. However, there are indications that other variables may also play a role. This study aimed to investigate the correlates of VUAQ using a cross-national sample.

Material and Methods We used data from the Global Adult Tobacco Survey (GATS) - designed to produce national estimates among all non-institutionalized men and women 15 years of age or older - from the 13 countries where almost 2/3 of smokers live. Those smokers who reported having tried to quit at least once were included in the present analysis: Bangladesh (n = 1,058); Brazil (n = 2,928); China (n = 489); Egypt (n = 1,577); India (n = 3,499); Indonesia (n = 821); Mexico (n = 839); Philippines (n = 1,288); Russia (n = 1,403); Thailand (n = 1,503); Turkey (n = 1,028); Ukraine (n = 832); Vietnam (n = 1,168). We carried out weighted regression models for VUAQ including sociodemographic, smoking, treatment, and media/perceptions as dependent variables.

Results VUAQ varied from 1.0% in the Philippines to 13.6% in Brazil. The category most consistently associated with VUAQ was less time to first cigarette (7 countries), followed by female gender and older age (5 countries) and cigarette advertising in stores (4 countries). Nicotine Replacement Treatment (NRT) was negatively associated with VUAQ in only two countries and Counseling and Brief Advice in none. Sociodemographic variables were more important in America, and level of dependence was less important in Asia. Treatment and Media/Perception variables were not important for VUAQ (with the exception of advertising in stores).

Conclusions Our findings support both the multicausality and great prevalence variability of VUAQ. Although reinforcing the importance of dependence level in many countries, the use of medications that alleviate withdrawal had hardly any effect. Interestingly, there is a justification for special interventions for women and the elderly, and also the banning of in-store advertising, in the attempt to reduce VUAQ.

Funding The Global Adult Tobacco Survey (GATS) functions as a multi-partner initiative that represents global, regional, and national organizations. We acknowledge WHO, CDC, GATS Implementing Agency, Johns Hopkins Bloomberg School of Public Health, RTI International, and the National Governments of Bangladesh, Brazil, China, Egypt, India, Indonesia, Mexico, Philippines, Russia, Thailand, Turkey, Ukraine, and Vietnam, for carrying out such an important survey, and releasing data for public use. Dr. Castaldelli-Maia receives a Pfizer Independent Grant for Learning and Change (IGLC) managed by Global Bridges (Healthcare Alliance for Tobacco Dependence Treatment) hosted at the Mayo Clinic, to support free smoking cessation treatment training in addiction/mental health care units in Brazil (grant IGLC 13513957). The above had no connection to the present study.

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Health and Tobacco I

ABSTRACT 39

Incidence of respiratory symptoms and allergic diseases in adolescent smokers in Former Yugoslav Republic of Macedonia (FYROM)

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Introduction Former Yugoslav Republic of Macedonia (FYROM) is still facing smoking as a complex problem to solve. Tobacco abuse has an economical as well as a trendy dimension, and children start smoking very early in life, often stimulated by their parents, friends or close environment and advertising. Although the relation of several lung diseases to smoking has been documented in numerous studies, there are no epidemiological data concerning the exact prevalence of smoking, and its relation to respiratory symptoms in this population in FYROM.

Material and Methods In order to estimate the prevalence of

smokers among adolescents, respiratory symptoms and allergic diseases in this group, we conducted a survey encompassing 1220 scholars, were asked to answer a questionnaire concerning smoking status, self-reported respiratory symptoms and history of allergic diseases.

Results Prevalence of active smokers was 398 (32.6 %) and the overall prevalence of respiratory symptoms was 552 (46.3%). Coughing was present in 641 (55.5%), wheezing in 534 (43.7%), and chest tightness in 410 (33.6%) . In smokers, coughing was 289 (72.6%), wheezing 221 (55.5%), and chest tightness 213 (53.5%). The correlation between symptoms and smoking was 0.174 for cough and wheezing and 0.129 for chest tightness, at $p<0.01$, and between symptoms and non-smoking status the correlation was non-significant. The overall prevalence of allergic diseases was 252 (21.2%) The correlation between allergic diseases and smoking showed no statistical signification (p=0.236).

Conclusions The results of our study show that more than one third of the adolescents in FYROM are active smokers, which has great impact on their respiratory and allergic status

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ABSTRACT 40

Is obstructive sleep apnea a tobacco induced disease?

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Introduction To assess the prevalence of obstructive sleep apnea related to smoking within a population in Romania.

Material and Methods A longitudinal descriptive study of adults with sleep complaints and high suspicion of sleep disordered breathing (SDB) was conducted in 2 Sleep Labs of Constanta, Romania, from October 2011 to April 2015. Nocturnal cardiorespiratory poligraphy was performed and a tobacco smoke-exposure questionnaire was collected after informed consent was obtained. SDB was considered if apnea-hypopnea index was 5 events/hour of sleep. The prevalence of obstructive sleep apnea (OSA) was determined among smokers (active or former). Tobacco smoke exposure (TSE) was considered absent in nonsmokers (NS), mild in smokers of < 10 pack year (PA), moderate in smokers of 10-19 PA and heavy smokers of 20 PA.

Results 326 adults mean aged 53.15 year-old +/- 11.436 (limits: 20 - 83 years), 73% male predominance, 69.93% SDB, were investigated for sleep complaints and TSE, revealing 112 nonsmokers; 26 mild, 56 moderate and 132 heavy smokers (chi2= 38.988; $p<0.001$). OSA represented 89.47% of SDB cases (n=204/228), versus non-OSA (4.38% central apnea and 6.14% obesity hypoventilation syndrome). OSA was more frequent in smokers (n=138 vs. 66 nonsmokers) than other SDB (n=46 smokers vs. 76 nonsmokers) and increased progressively according with TSE (66 nonsmokers, 11 mild smokers, 35 moderate smokers and 92 heavy smokers) versus other SDB (46/15/21/40) (chi2= 8.056; p=0.045).

Conclusions OSA seems to be a tobacco smoke induced disease, having a prevalence 2 times greater in smokers and a significant risk of occurrence which increases according to heavy smoking history.

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ABSTRACT 41

Smokers' use of electronic cigarettes in the month before and after hospitalization. Findings from helping hand 2 study

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Introduction To assess frequency and patterns of e-cigarette use among smokers before, during, and after a hospitalization.

Material and Methods Analysis of data from a multi-site randomized controlled trial that enrolled 1357 hospitalized smokers planning to quit, offered two intensities of conventional cessation treatment after discharge, and reached 1100 participants at one month post-discharge. We assessed patterns of e-cigarette use before, during and after hospitalization, reasons for use, and factors associated with use.

Results E-cigarettes were used by 21.4% of smokers in the month before hospitalization but were used intermittently (median=4/30 days). E-cigarettes were used by 3.1% of smokers in the hospital and by 18.3% during the month after discharge, primarily as quit aids. At 1 month, 10.6% reported past 7-day e-cigarette use (median=4/7 days), including 4.6% who used e-cigarettes exclusively and 6.1% who also smoked conventional cigarettes. The adjusted odds of e-cigarette use post-discharge were lower among non-Hispanic blacks and higher among smokers who were female, better educated, used e-cigarettes before hospitalization, relapsed to cigarettes in the week after discharge, and were randomly assigned receive less ready access to evidence-based cessation treatments.

Conclusions Substantial minorities of smokers who planned to quit used e-cigarettes before and after a hospitalization, primarily to aid quitting, and despite receiving conventional cessation support post-discharge. However, e-cigarette use was intermittent and dual use with cigarettes was common. E-cigarette use was more common among smokers who relapsed soon after discharge and received less intensive cessation help. Funding The Helping HAND 2 trial was funded by NIH/NHLBI grant #R01-HL11821. AH is funded by British Heart Foundation 4-year PhD studentship at University College London. The funding organizations had no role in the design and conduct of the study; collection, management, analysis,

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ABSTRACT 42

The intention of smoking cessation in cancer patients

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Introduction The continuation of smoking in cancer patients further enhances disease progression. The aim of our study is to relate the intention to quit smoking with demographic and psychological characteristics of the patient.

Material and Methods 80 patients with solid organ cancer, were included in the study. They were monitored for the disease in oncology departments independent of the time of diagnosis, stage and type. A self-report questionnaire including a demographic information sheet, a rating scale of intention to quit smoking, a scale for assessing the degree of smoking dependence and the STAI anxiety questionnaire were used.

Results 56.3 % of the sample were male. 68.8 % were married, while 78.4% were parents. 93.8% were smokers in the past, while 53% continue smoking after cancer diagnosis and 31.3% smoke 20 cigarettes per day. Above 50% of the smokers are worried about the dangers of smoking.

Conclusions The role of personality, the level of education and the degree of smoking dependence, influences the smoker's intention to quit smoking. Regardless of the severity of the diagnosis and the risks of a disease such as cancer, the patient's attitude is affected by their educational level and the level of trait anxiety.

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ABSTRACT 43

Influence of having a psychiatric diagnosis on smoking cessation

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Introduction The impact of having a psychiatric diagnosis on smoking cessation is an area of interest.

Material and Methods This study was performed among patients that attended in UDESTA Tobacco Unit in 2006-2014. The number of patients with a psychiatric diagnosis was 1359; 2425 did not have one.

Results Patients with a psychiatric disorder tend to quit significantly less than those without it. This is observed at quitting day (59.9% vs 68.2%; p<0.001), at 6 months (34.5% vs 45.6%; p<0.001), and at 12 months (27.1% vs 37.0; p<0.001). Having a second psychiatric diagnosis decreases additionally the likelyhood of a quit attempt. Multivariant analysis show that the factors that influence quitting, both in psychiatric and non-psychiatric patients, are: cannabis consumption (x0.42 and x0.27), the highest number of days abstinent in a previous quit attempt (x1.0016 and x1.0010 per day), the degree of familiar support (x1,048 and 1,038 per point), the score in Fagerström test (x0.92 and x0.90 per point), and the score in Goldberg-Depression subscale (x0.94 and x0.94point). All differences are statistically signicant. When results are analyzed adjusting by the variable that exerts influence on quitting (dependence, support, depression, stress), differences between psychiatric and non-psychiatric patients persist. Even though their abstinence rates are lower, our results show that persons with a psychiatric diagnosis want to quit as much as those without it, and that they can do it (27% at a year).

Conclusions Since the characteristics associated with smoking in these patients are not alone responsible for the cessation differences, this seems to suggest that the own psychiatric condition is also responsible for it.

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ABSTRACT 44

The 40-day cytisine treatment for smoking cessation: the Italian experience

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Introduction In Eastern Europe, cytisine has been used a lot in smoking cessation while in Italy, it has only recently been introduced, however using a longer treatment schedule consisting of 40 days instead of 25 and a different posology. This work gathered the retrospective observational data collected by some Italian smoking cessation centers that used the 40 day cytisine treatment (40-DCT) and focused on short-term results and possible adverse events.

Material and Methods In Italy, cytisine (1.5 mg per tablet) was prescribed as galenical formulation because is not licensed with a specific brand. The dosing regimen was: induction (2 to 6 tablets/day for the first 7 days), maintenance (6 tablets/day for 7 days), and

gradual reduction for 26 days. The 40-DCT was integrated with a behavioral support (5-7 meetings/patient). Demographic and clinical variables of patients were collected at the beginning and at the end of treatment.

Results A total of 162 patients (43.2% male) were treated with the 40-DCT, their mean-age was 51.1 years. They smoked 22.6 cigarettes/day and had a mean respiratory CO of 22 ppm at start. The quitting rate at end of treatment was 61%, while 26.0% dropped-out. Among those who continued to smoke (13%), about half of them (6%) halved the number of cigarettes. Nobody interrupted the treatment and only few patients had minor side effects.

Conclusions The 40-DCT was effective in tobacco addiction treatment and well tolerated. The vegetal origin and the low cost of cytisine may increase its acceptability and help smokers to quit.

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ABSTRACT 45

Missed opportunities for smoking cessation counseling in primary healthcare settings: a qualitative study in Armenia

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Introduction Physicians miss many opportunities to provide smoking cessation counseling despite patient interest and demonstrated efficacy of brief counseling in routine clinical care. The study aimed to reveal what influences primary healthcare physicians' (PHPs) decision to discuss smoking cessation with patients.

Material and Methods The study team implemented a qualitative research through focus group discussions with PHPs using a semi-structured guide. Purposive sampling was used to recruit participants (n=23) from two Armenian cities. Collected data were transcribed and analyzed by directed content analysis technique.

Results The majority of PHPs reported that they did not routinely discuss smoking with patients without smoking-related problems, as they were afraid of harming physician-patient relationship. PHPs' believed that asking patients about their smoking status could be "offensive" and "harmful". Some of PHPs were considering smoking as a culturally sensitive issue and prefer checking smoking status of men rather than women. The smell of smoke, voice changes, or bronchitis made PHPs to discuss smoking with women. Physicians also tend to miss the opportunity to discuss smoking with special patient subgroups (elderly patients, patients with severe co-morbidities) because of the misbelief that smoking "already harmed" them. Excessive paper work, shortage of time were identified as other obstacles for using the opportunity to discuss smoking.

Conclusions Physicians appear to prioritize smoking cessation counseling based on patients' socio-demographic characteristics (age, gender) and diagnosis at the time of the visit. Specific interventions should be implemented to motivate physicians' to use opportunities to discuss smoking cessation during routine consultations with all patients.

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Economics, Trade, Society and Tobacco

ABSTRACT 46

The Distributional Impact of Tobacco Tax Increases in Ukraine on Tobacco Use and Spending: Estimates from Survey Data

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Introduction Ukraine significantly increased tobacco excise taxation since 2007, which reduced the affordability of tobacco product, and resulted in decreasing prevalence among adults, on average. However, because of large price and tax gaps across tobacco products combined with companies' brand and price manipulations ("price wars") the reforms differentially impacted consumers depending on income and age groups. We estimate the impact of tobacco tax reforms since 2007 in Ukraine on tobacco products' affordability and demand across relevant population groups.

Material and Methods Using the variations in size, time, and design of tobacco tax reforms as natural experiments and a probit methodology, we estimate the impact of the reforms on affordability, health, and revenue. We use individual data on tobacco consumption and health outcomes from 2007 to 2014 from the ULMS and GATS Surveys. Data on tax revenue, sales, prices, and tax structure by tobacco products are from official government sources.

Results Recent tobacco tax reforms in Ukraine have significantly increased the share of tobacco taxes in the retail price. Yet these reforms had mixed impacts on prevalence depending on income and age groups, while the impact on tax revenue was different than predictions.

Conclusions We show that tobacco tax policy reforms in Ukraine since 2007 had mixed impacts on prevalence and health outcomes depending on income and age groups, while the impact on tax revenue were lower than predicted. We further discuss the most

recent reforms and provide recommendations for future changes in tobacco excise taxation and design.

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ABSTRACT 47

Recent trends in tobacco sales, excise revenues, and affordability in the former USSR countries

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Introduction Twelve countries of former USSR adopted various tobacco taxation policies in 2008-2015. The aim of this study is to compare trends in tobacco sales and tobacco excise revenues to estimate the impact of tobacco taxation.

Material and Methods Data on revenues and sales were collected from the official websites. If sales were not reported, the turnover (= production + import – export) data were used. Consumer price indices (CPI) data for tobacco products were also collected. Tobacco affordability was estimated as CPI-tobacco relative to annual GDP change.

Results Cigarette sales in 2008-2015 in the 12 countries combined decreased by 26%. The large decline was observed in Russia, Ukraine, Kazakhstan, Moldova, Kyrgyzstan, and Turkmenistan, while in Armenia, Azerbaijan, Georgia, Belarus, Tajikistan, and Uzbekistan sales were rather stable or even increased. Real (inflation-adjusted) tobacco excise revenues substantially increased in Russia, Ukraine, Kazakhstan, Moldova, Kyrgyzstan, Uzbekistan, and Belarus, while in Georgia and Armenia the increase was small. Real tobacco prices increased much in Russia, Ukraine, Kazakhstan, Moldova, Kyrgyzstan and Belarus, while in Tajikistan and Armenia those prices decreased. Tobacco affordability decreased in Russia, Ukraine, Kazakhstan, Moldova, Kyrgyzstan and Belarus, while in Tajikistan and Armenia cigarettes became more affordable.

Conclusions Cigarette sales in the region decreased in 2008-2015 and the key factor for the decline was the reduction of tobacco affordability. Only the substantial increase in excise rates can guarantee both revenue growth and the reduction of tobacco consumption. To reduce tobacco consumption, excise rates should be increased annually taking into account inflation and income growth.

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ABSTRACT 48

Labor losses associated with smoking mortality in Spain

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Introduction The aim of this paper was to estimate the number of deaths, potential years of lost working life and, loss of productivity attributable to tobacco by the year 2014 for the Spanish population older than 35 years old.

Material and Methods Considering the human capital approach, labor productivity was approximated through remuneration in the labor market using the average gross wage. Employment data were obtained from the INE's Labor Force Survey. Deaths were obtained from the Register of Deaths. Relative risks associated to death rate with active cigarette smoking and smoking cessation was applied. The future values obtained were applied an annual discount rate of 3% and an annual rate of growth of labor productivity of 1%. Univariate deterministic sensitivity analysis was performed on discount rates and labor productivity growth rates. Potential Years of Lost Work Life (APVLP) were also estimated.

Results In summary, between 13.243-14.158 deaths have been estimated to be attributable to smoking to a population older than 35 years old. In addition, it has been estimated that between 21.830-23.271 of APVLP because of this habit. Therefore, this corresponded to 248.86-266.60 million euros of monetary losses in 2014. Most of the losses are concentrated in the malignant tumors of the trachea, bronchi, and lung.

Conclusions The monetary value attributed to labor losses associated with smoking mortality was high especially for oncological related diseases. Therefore, it is important to include these costs in economic evaluations of tobacco programs.

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ABSTRACT 49

Tobacco smuggling estimates based on pack examination in Ukraine

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Introduction Tobacco smuggling is a common argument tobacco industry uses to oppose tobacco tax increases. Tobacco control advocates need reliable data to counteract these statements. We

present the estimated proportion of cigarettes at the Ukrainian market produced in neighboring countries.

Material and Methods We use results of five nationally representative surveys conducted in Ukraine in 2005-2015. During face-to-face interviews, all participating smokers were asked to present a cigarette pack. Languages of health warnings were recorded.

Results Packs with Ukrainian health warnings constituted 95-98%. Packs with Russian language warnings (produced in Russia or Belorussia) constituted 0.6- 4.2% of cigarettes on the Ukrainian market. Moldovan cigarettes constituted less than 1% of the market. Cigarettes from the neighboring countries could be brought as a result of trans-border smuggling or cigarette purchases by travelers within legal limits as these packs were mostly found in the border territories. In 2015, 2/3 of packs with Russian warnings were seen on the territory of Donetsk region not controlled by Ukraine.

Conclusions Cigarette pack examination as a part of tobacco surveillance allows estimating the proportion of cigarettes brought from other countries, part of which could be smuggled. This information can be used for counterbalancing the industry's statements, which usually overestimate the level of cigarette smuggling.

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ABSTRACT 50

Tobacco or health in post–modern society – a sociological look at current and future challenges

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Many sociologists claim that highly developed societies have entered in the past decades into the new phase of social development – post, late or fluid modernity that substantially has changed the functioning human being, social groups and social institutions. The aim was to analyse whether social, political and cultural changes in post-modern society may influence on attitudes toward health, tobacco use and control. Key features of the late modernity include: 1/ trust to complex, abstract and often recondite technical and organizational systems, 2/ new dimensions of risk connected to changes of civilization and informative revolution, 3/ lack of transparency, uncertainty and increasing chaos in social life, and 4/ fast economic, political and cultural globalization. These categories are used to discover new attitudes toward health and challenges in tobacco control. In the post-modern society, the relationship to health and health-related phenomena, including tobacco use and control, is based in large extent on indirect communication with health care system or even on institutions which do not represent the health sector. Such communication is often assured by non-transparent, highly complex information technologies that require high competences to be effectively used. In fact, modernity excludes and marginalises particular groups of people, including poor and low-educated smokers who have limited access to these technologies and systems. Life in multi-dimensional risk conditions requires from individual self-reflexivity and self-efficacy and strengthens feeling of uncertainty that may have an influence on risky behaviours such as tobacco and drug use or alcohol drinking. Increasing consumerism and high social mobility, typical consequences of globalization, result now more from emotional than material needs, strengthen the feeling of loss and uncertainty, and causes that personal identity has become less firm and more fragmented. In conclusion, effective tobacco control strategy has to take into consideration social phenomena and processes which are observed in the changing post-modern society.

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ABSTRACT 51

The new anti tobacco law in Romania –a partnership success

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The anti-tobacco law was finally changed after 11 year of heavy debate with the tobacco industry. It was a democratic process initiated by a deputy , created and implemented in 1,year supported by strong partnerships between the Romanian Pneumology Society, the Romanian Cardiology Society and many NGO of youth under the umbrella of the Coalition "Romania is Breathing». We are describing how we prepare our fight ,how we interact with the parliamentarians, authorities , mass media and what are the next steps for supporting the EU Directives.

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Health and Tobacco II

ABSTRACT 52

Smokers' past experience and intentions in selecting cessation aids: implications of social learning theory

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Introduction Motivation of smokers to quit and their intention to use evidence-based cessation tools might be an important predictor of the quit attempt outcome. We aimed to check the hypothesis that

smokers' intention to use particular tools for smoking cessation is determined by the tools used in earlier attempts and the outcomes of past attempts.

Material and Methods Ukrainian daily smokers participated in telephone interviews in 2016 and were asked about their smoking behavior, intention to quit, earlier attempts and tools that will be preferred in future quit attempts. The analysis aimed to explore associations of intended approaches to quitting with earlier used tools, smoking history, nicotine dependence, and demographics.

Results Earlier unassisted quit attempts predicted the intention to quit unassisted: Odds Ratio[OR]=1.6(95% CI:1.3-2.0). Use of self-help materials in the past predicted the same intent in future: OR=5.3 (95%CI:3.8-7.5) with a decrease by age. Getting counseling from a physician or a psychologist in the past and younger age was associated with the intention to get counseling through quit line or face-to-face: OR=7.9 (95%CI:2.6-23.9). Intention to use NRT was modified by the duration of abstinence in earlier quit attempts: 15% of those who used NRT and were abstinent for years, 7% of those abstinent for weeks or months and none of those who used NRT but were abstinent for only days intended to use NRT again.

Conclusions Past experience is a strong predictor of smokers' intentions. Cessation counselors need to help smokers realize the outcomes of their past quit attempts and use this information in making new attempts successful.

Funding Data collection was funded by Life NGO, Kiev, Ukraine

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ABSTRACT 53

Effects of Smoking Cessation on lung cancer chemotherapy

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Introduction Smoking cessation has proved beneficial for most population, for the prevention of diseases such as coronary disease, COPD and lung cancer. The current review article examines the effects of smoking cessation on the toxicity, the quality of life and the overall survival of patients who are undergoing chemotherapy or radiotherapy.

Material and Methods Included patients were either never smokers or smokers both with a confirmed diagnosis of small cell or non-small cell lung cancer. The last group of patients was further separated into two subcategories, those who stopped and those who continued smoking during chemotherapy. One hundred and twenty three (123) consecutive, unselected patients met the criteria.

Results Patients that quit smoking at diagnosis had a higher average life span. Patients who did not cease smoking, the majority of them did not receive radiotherapy. In addition, there was a statistically significant difference between the need for hospitalization of smokers (95.7 %) versus those who quit (45.2 %). Furthermore, comparing patients that smoked either before or during the treatment, there was a statistically significant difference between survival rates of patients that continued smoking (10 months) and the ones that ceased prior to chemotherapy (11 months) while the non-smokers had a 13-month survival.

Conclusions Smoking cessation leads to better quality of life, longer overall survival and less toxicity from chemotherapy treatment. Lung cancer patients that smoke must attend quitting smoking session organized by specialists.

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ABSTRACT 54

Maintenance following smoking cessation groups: a comparison between Arab and Jewish ex-smokers

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Introduction Smoking prevalence in Israel is twice as high among the Arab (46%) than among the Jewish population. In the Northern District in Meuhedet approximately 40% of members are Arab. Participants in smoking cessation groups are evenly divided between Arab and Jewish smokers. The Aim of this study was to identify risk factors for relapse among participants in smoking cessation groups in order to establish culturally appropriate support strategies.

Material and Methods Between the years 2010-2015, approximately 2,000 members participated in smoking cessation groups in the district. The study population were randomly selected participants who had completed a smoking status questionnaire prior to participation in the group, who had attended the group at least a year prior to the study and who participated in at least 3 group meetings (out of 8). We used a telephone questionnaire consisting of questions regarding current smoking status, and factors associated with abstinence or relapse.

Results 221 members completed the telephone questionnaire. Self-reported abstinence was significantly higher among Arabs than among Jews (52.2% vs. 39.9%, $p<0.01$), and among males than females (49.4% vs. 21.6%, $p<0.01$). As only Arab males participated in smoking cessation groups, we compared between males only and found no significant difference. Likelihood of abstinence was twice as high among those who persisted with smoking cessation medication ($p<0.05$) and 6 times higher among

those who were physically active (p<0.01). Arabs persisted more with medication (94.7% vs. 76.2%, p<0.0001); no difference was found between Arabs and Jews in physical activity. Those who reported a supportive family member were 4 times more likely to remain abstinent, and Arabs were significantly less likely to report this than Jews (16% vs 55%, p<0.001).

Conclusions This study demonstrates the need for culturally adapted tailored maintenance programs following smoking cessation interventions.

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ABSTRACT 55

The Use of Five "A's" Tobacco Cessation Strategy among Patients Hospitalized for Myocardial Infarction in Armenia

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Introduction The effectiveness of smoking cessation in the prevention and management of myocardial infarction (MI) is well documented. Hospital admissions are unique opportunities for them to receive tobacco dependence treatment and healthcare providers may play a major role in it. This study investigated smoking cessation interventions using evidence-based «5 A's» model (Ask, Advice, Assess, Assist, and Arrange) among MI patients in Nork-Marash Medical Center (large cardiac hospital in Yerevan, Armenia).

Material and Methods Interviewer-administered telephone survey and chart review were conducted among adult MI patients at 6 to 12 months after hospitalization who were smokers at the time of MI.

Results The data was collected from 103 smoker patients with the mean age of 58.73. Medical chart review showed that about 96% of medical records included patients' smoking status (Ask). Almost 88% received smoking cessation advice from the physician (Advice). Only one patient received smoking cessation assistance (self-help material) (Assist). We could not document the performance of the "Assess" component of the model at the hospital. No follow-up arrangements were done by the physicians (Arrange). Almost all patients attempted to quit after MI, but only 54.37% maintained non-smoking status at 6-12 months.

Conclusions The study showed that evidence-based smoking cessation practices were not properly implemented in the hospital, suggesting that opportunities to help hospitalized patients quit smoking were mainly missed. The study demonstrated the need for integration of proper cessation services in the medical care for all MI patients in Armenia.

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ABSTRACT 56

Deprivation and smoking trends among lung cancer patients before and after the Greek economic crisis. Insights from the Cancer Registry of Crete

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Introduction To provide insights on Lung Cancer (LC) and the associated risk factors before-after the economic crisis in Crete, Greece. To assess the smoking habits of LC patients during the austerity period.

Material and Methods The study was conducted in Crete, Greece. Data (5,057 LC cases) were obtained from the Cancer Registry of Crete (CRC). Age-Standardized Incidence and Mortality Rates (ASIR, ASMR/100,000/year), adjusted Charlson's Comorbidity Index (CCI%), deprivation index (HPI-2) and exposure to Outdoor Air Pollution (OAP) were estimated. The analysis was performed for two time periods (Period A: 1992-2008; Period B: 2009-2013).

Results ASIR presented a significant increase during the economic crisis, while even higher increase was observed in ASMR (Period A: ASMR=30.5/100,000/year; Period B: ASMR=43.8/100,000/year; p<0.001). A significant increase was also observed in smokers (Variation rate=7.4; p=0.02) during the austerity period. After 2009, a significant increase of the LC hot spots was observed in several sub-regions of Crete (p=0.04), mainly due to smoking and deprivation levels increase. The risk of LC mortality increased even more among smokers (RR=5.7; 95%CI=5.2-6.3) and individuals living in highly deprived geographical regions (RR=5.4; 95%=5.1-5.8) during the austerity period. The impact of the multiple LC predictors resulted in adjusted RRs ranging from 0.7 to 5.7 within the island (p<0.05).

Conclusions The increased LC burden after the onset of the economic crisis, along with a changing pattern of LC predictors stress the urgent need of targeted interventions and cancer control programs focusing on the most deprived or vulnerable population groups.

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ABSTRACT 57

No differences among sexes in smoking cessation in the patients treated in an specialized unit

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Introduction The role of gender as a parameter of smoking cessation is an area of interest

Material and Methods Information from patients that attended between 2006 and 2014 the UDESTA Tobacco Unit, dependent on the Government of Cantabria, were analyzed.During this period of time, 2052 women (54.4%) and 1722 men were treated.

Results Men and women differed in most of the variables that were analyzed. Although there were no differences in age (47.5 vs 48.1; p=0.10) or in the Fagerström test (6.2 vs 6.3; p=0.13), women tend to smoke less cigarettes (23.6 vs 27.2, p<0.001), find quitting harder (8.4 vs 8.0; p<0.001), refer less familiar support (8.2 vs 8.5; p<0.002), score higher in Goldberg-Depression (3.1 vs 2.6), in Goldberg-Anxiety Inventory (4.7 vs 4.2; p<0.001), and in the Perceived Stress Scale (16.2 vs 14.2; p<0.001). The prevalence of a psychiatric diagnosis was higher in women than in men (41 vs 35%; p<0.001); cannabis consumption was higher in men (2 vs 6%; p<.001).Despite these differences, cessation rates in men and women were absolutely similar at all the time periods analyzed: at quitting date (65.6 vs 63.6; p=0.21), at 6 months (40.4 vs 41.2; p=0.61), and at 12 months (32.2 vs 33.2; p=0.49).

Conclusions The absence of difference between sexes persist when data are adjusted either by age, psychiatric diagnosis, dependence, depression symptoms, perception of support, number of previous attempts, and drugs used during the treatment. The differences between sexes found in other studies might be due to the fact that in some other countries things are different, or that some confounding factors have not been ruled out.

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Project Quit Tobacco International

ABSTRACT 58

Training Nurses in Smoking Cessation: Challenges and Opportunities

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Introduction Turkey is a leader of tobacco control in Europe. However, little is known about cessation implementation, a key component of tobacco control success. This paper discusses the training of nurses in smoking cessation as part of routine practice in Istanbul hospitals. The Turkey project builds and extends on a decade of research and training in developing culturally sensitive cessation education in India and Indonesia (Project Quit Tobacco International). One of the goals of the Turkey project is to provide leadership in the field of nursing in smoking cessation as a foundation for a larger smoking cessation movement within Turkey's healthcare sector.

Material and Methods Prior to training, formative research was conducted with smokers to better understand challenges faced when trying to quit. Site visits to government hospitals and cessation clinics were conducted to observe health care provider-patient interaction. Four culturally sensitive cessation training workshops for nurses (n=54) were held and follow-up debriefing sessions were conducted.

Results Challenges to cessation counseling included lack of time and incentives for nurse involvement; lack of information about the harm of smoking and benefits of quitting; and the medicalization of cessation focused on pharmaceutical distribution. The pay for performance model in hospitals has de-incentivized doctors to work in cessation clinics making referrals by nurses unfeasible.

Conclusions o involve nurses in tobacco cessation delivery in Turkey, health care providers need to quit smoking, and changes to the health care system need to occur. Cessation needs to be integrated into routine nurse-patient interactions, teamwork between nurses and doctors will need to be established to enable referral in hospitals with and without cessation clinics, and the systemic harms of smoking will need to be integrated into medical and nursing school curriculum. Opportunities for doing so are discussed.

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ABSTRACT 59

Including Smoking Cessation as Routine Care for Chronic Illness in Turkey: Case Studies from Diabetes Clinics

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Introduction In Turkey, the prevalence of diabetes is 14.6 percent, the highest in the European region. Smoking among diabetes patients increases the risk of premature death from cardiovascular diseases, progression of micro albuminuria and impairment of renal function and neuropathy. It also deteriorates the effectiveness of insulin and anti-diabetic drugs. The strong evidence of a dose-response association between cigarette smoking and diabetes morbidity and mortality makes smoking cessation a priority in diabetes patient management. However, in Turkey smoking cessation for diabetes patients is not part of routine patient care. As part of Project Quit Tobacco International, diabetes nurses in Istanbul hospitals were trained on the harms of tobacco use for diabetes patients and were provided skills for cessation counselling. This paper discusses this training as well

as nurses' experiences on the ward post training.

Material and Methods Interviews (n=10) were conducted in diabetes clinics in Istanbul to gain an understanding of the willingness and interest of nurses to be trained in cessation counseling. After determining a high level of interest, a group of diabetes nurses (n=15) were provided a two-day training focused on an overview of tobacco control in Turkey, the harms of tobacco and diabetes-specific information, and training in cessation counseling. Two months after the training, nurses were debriefed on their experiences conducting cessation counseling.

Results Results reveal that illness-specific information about the harms of smoking were well received by patients, and many were interested in quitting. Educational materials including posters, flipcharts and pamphlets that were prepared by the researchers were found to be important in patient understanding of the importance of quitting. Nurses expressed increased satisfaction in their job.

Conclusions Clinic-based smoking cessation is clearly warranted in Turkey and initial experiences of trained nurses will allow future trainings to better tailor cessation messages to this special population.

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ABSTRACT 60

Experiences of Turkish Pediatric Nurses and Midwives in Cessation Counseling with Parents

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Introduction Smoking during pregnancy is a leading preventable cause of low birth weight and preterm delivery. Infants and children exposed to tobacco smoke in utero and post natally are at increased risk for otitis media, wheezing and asthma, and lower respiratory tract infections. In Turkey, little is known about smoking during pregnancy, although one study revealed that 28% of women smokers continued to do so throughout their pregnancy. This paper reports on formative research conducted with pregnant and postpartum women on smoking behavior and the training of pediatric nurses and midwives in cessation counseling in Turkey.

Material and Methods Fifteen interviews with women were conducted to explore smoking behaviors during pregnancy and postpartum, to assess understanding of the harms of smoking, and interest in quitting. Interviews with pediatric nurses and midwives were also conducted to explore their attitudes toward training in cessation counseling. Following data analysis, 18 nurses and midwives were trained on harms of tobacco use during pregnancy and postpartum, the harm of secondhand smoke exposure and cessation counselling skills. Following training, nurses and midwives were debriefed to explore patient's responses to quit advice and challenges faced during cessation counseling.

Results Many women reduced their level of smoking during pregnancy and some were able to quit entirely. However, after delivery, many relapsed to smoking. Women's understanding of the harm of smoking to their children was limited to respiratory illness. Nurses and midwives felt confident in delivering cessation messages and noted that women were receptive to the importance of quitting once they understood the harm of secondhand smoke to their children.

Conclusions Given the prevalence of smoking among women in Turkey, there is a clear need for nurses and midwives to ask and assess smoking status during pregnancy visits and to offer cessation advice to all those for smoke.

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ABSTRACT 61

The Biopolitics of Smoking Cessation in Turkey

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Introduction Smoking is increasingly recognized as an important threat to women's health in low and middle-income countries where the epidemic is growing. In Turkey, the national prevalence of smoking among women is 13%, although it is likely that it is higher in urban areas and among young women. While Turkey has been very active in tobacco control activities, few qualitative studies have explored the meaning of smoking to women, the perceived utilities and benefits of smoking, and women's attitudes toward quitting. In this talk, we draw on analysis of interview data to explore reasons why women in Turkey smoke and discuss an urgent need to incorporate gendered approaches to cessation activities.

Material and Methods Fifteen semi-structured interviews were conducted with women with different socio-economic and demographic backgrounds. The interviews focused on the reasons the women give for starting and continuing smoking, and their efforts to quit it.

Results The women cited stress and anxiety related with their schoolwork and their future plans as the main reason for starting to smoke. Problems in their job and personal relationships are also cited as reasons to start smoking. Women often quit smoking when they try to conceive or they are pregnant, and do not start again until they stop breastfeeding. Almost all women mentioned that they tried to quit smoking, but could not do it for good, since the stress inducers remained in their life.

Conclusions Female tobacco use poses serious threats to women's health, maternal and child health. Educational programs for health professionals in Turkey will need to incorporate training on the gender specific health harms of smoking and will require gender

sensitive skills training to promote cessation.

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Smoking and Society

ABSTRACT 62

Smoking in Italy in 2015–2016: Prevalence, trends, roll-your-own cigarettes and attitudes towards incoming regulations

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Introduction In 2016 a series of selective tobacco regulations, which however did not affect tobacco price, came into force in Italy. To understand how Italians accepted the new norms, we analysed data from our two most recent surveys among those we annually conduct on tobacco.

Material and Methods In 2015 and 2016 we conducted 2 representative cross-sectional studies focused on the new forthcoming tobacco legislation on a total sample of 6046 Italians aged 15 years.

Results Overall, 21.4% of Italians (26.0% among men and 17.2% among women) were current smokers, showing a small but significant decrease in smoking prevalence since 2007 (p for trend=0.004). No change in smoking prevalence was observed over the last decade among the young (i.e., 15-24; 20.1% in 2015-2016). Roll-your-own (RYO) cigarettes were the most frequent tobacco product for 8.3% of adult smokers and 19.7% of young smokers. According to the attitudes of Italians towards the new regulations, 91.3% supported the smoking ban in cars in presence of minors, 90.2% a more stringent enforcement of the tobacco sales-to-minors regulation, 74.3% the introduction of shocking pictorial images on tobacco packs, and 63.2% the removal from the market of small cigarette packs, usually purchased by the young.

Conclusions Smoking prevalence only marginally decreased over the last decade among adults, but did not decrease among the young. RYO tobacco is more and more used by adults and young. Before the entrance into force of the new norms, Italians substantially support them, particularly those targeting children.

Funding The surveys were conducted with the contribution of the Italian Ministry of Health. This work was partially funded by the European Union's Horizon 2020 Research and Innovation Programme (The TackSHS Project; grant agreement: 681040) and by the Italian Ministry of Health (MADES project, chapter 4100/22). The work of SG and AL was partially supported by the Italian League Against Cancer (Milan). The authors declare that there are no conflicts of interest.
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ABSTRACT 63

Social context of smoking among non-institutionalized adults: results from 12 US states, 2015

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Introduction Examine the association between social context and smoking status among non-institutionalized adults.

Material and Methods Cross-sectional data from 2015 Behavioral Risk Factor Surveillance System on 67,290 non-institutionalized adults, were analyzed. Sample weights were applied to generalize results to 27.5 million adults, in 12 US states. Descriptive statistics and multinomial logistic regression were conducted.

Results In 2015, 19.2% (5.3 million) were current, 25.0% (6.9 million) former, and 55.7% (15.3 million) never smokers. Approximately, 40.0% were 55 years of age or older, 52.6% female, 72.0% non-Hispanic whites, and 55.7% were married. About, 16.0% of adults reported that they always worried or stressed about having enough money to pay the rent or mortgage in the past 12 months. About 11.0% of adults reported that they always worried or stressed about having enough money to buy nutritious meals in the past 12 months. Controlling for all covariates, participants who always (AOR 2.58, 95% CI 2.32-2.89) and sometimes (AOR 1.59, 95% CI 1.43-1.79) reported being worried or stressed about having enough money to pay the rent or mortgage in the past 12 months were significantly more likely to be current smokers than never smokers. Controlling for all covariate, participants who always (AOR 2.37, 95% CI 2.10-2.68) and sometimes (AOR 1.62, 95% CI 1.44-1.83) reported being worried or stressed about having enough money to buy nutritious meals in the past 12 months were significantly more likely to be current smokers than never smokers.

Conclusions To reduce smoking prevalence, it is important to target social context of smoking.

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ABSTRACT 64

Socioeconomic class in smoking cessation groups– who perseveres?

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Introduction Meuhedet offers smoking cessation groups throughout Israel. Participants receive subsidized medication only if they participate in these groups. The aim of this study was to examine attendance in smoking cessation groups and whether it is related to socioeconomic class.

Material and Methods We analyzed all participants in groups over the years 2013-2016. Participation was defined as very low (attended less than 25% of sessions), low (26-50%), medium, (51-75%) and high (over 75% of sessions). Socioeconomic class (SES) was defined using participants' home address, according to the Israeli Bureau of Statistics definitions of social class, and we divided these into 3 categories- low, medium and high.

Results Between 2013 and 2016, 10,782 members participated in smoking cessation groups. Of these we had SES information for 88%. 35% of participants were in the low SES category, 52% in the medium category and 13% in the high category. Attendance was higher in the lower SES group, with 35% of those in the low SES category attending 75% and over of sessions compared with 27.6% of those in the high SES category.

Conclusions One quarter of participants in smoking cessation groups only attend 1 or 2 sessions. This may be partly due to the requirement of enrollment in the groups to obtain subsidized medication, but SES was not associated with the decision to drop out. People in the lower SES category were more likely to attend more sessions, possibly because they have less sources of support and information.

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ABSTRACT 65

A systematic review of the methods and outcomes of Smoke Free Work Hours and other smoking regulations at workplaces

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This study's initial aim was to investigate literature on Smoke Free Work Hours and its effects, but preliminary results based so far on four reviews and 20 underlying studies used in these reviews, indicate that Smoke Free Work Hours is a purely Scandinavian model, and that literature on the concept is scarce. Apart from this, we find, that the extent of legislations and rules regarding workplace smoking differ worldwide as well as the research concerning smoking regulations in workplaces. We thus see a need for a review describing the different types of regulations and rules used worldwide to prevent smoking in workplaces. Our adjusted research strategy thus aims to categorize the different kinds of smoking regulations used worldwide and the outcomes of the different regulation types. The strategy is still based on the key words as mentioned in the former abstract, but will only include reviews on smoking regulations and the studies used in these reviews to look into details regarding the smoking regulations. Preliminary findings indicate, that the stricter the regulation the greater the effect on smoking prevalence. This knowledge can contribute as a guideline for decision-makers when considering new kinds of smoking regulations.

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ABSTRACT 66

Behavioral counseling intervention for youth waterpipe smokers

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Introduction Youth are the most affected group of the epidemic of tobacco waterpipe smoking. Dependence on waterpipe smoking is well demonstrated by researchers. Yet no studies were reported on waterpipe smoking cessation interventions among youth. The current study aims to evaluate the effectiveness of a culturally adapted, school-based 5As-guided counseling intervention for waterpipe smoking cessation.

Material and Methods A Randomized Clinical Trial [RCT] was conducted to test the effectiveness of a behavioral counseling waterpipe smoking cessation intervention among youth in Jordan. Eight schools (4 intervention, 4 control) in Jordan were school students who reported current waterpipe smoking were recruited to participate in the study. School counselors served as the study Interventionist. Waterpipe smoking abstinence was assisted at study entry (baseline) and at 1-, 3-, and 6-month follow-up to assess the short and long term effect of the intervention.

Results The final sample consisted of 185 participants (48% boys and 51% girls). The majority were 10th or 11th graders with a small percentage of 12th grade students. A decrease in number of times for waterpipe smoking is observed between pre- and post-intervention among participants. Smoking waterpipe two times or more weekly decreased for current smoking between pre- and post- intervention (27.6%, 23.3% respectively). Results of waterpipe smoking dependence level indicated a slight change between pre-, and post- intervention nicotine levels as indicated in Figure 6. A decrease is observed in high dependence level, while other categories did not show any change except an increase in the moderate dependence category.

Conclusions This is the first reported study of waterpipe smoking cessation intervention among adolescents. Our study demonstrated that behavioral counseling is effective in decreasing waterpipe

smoking habits among youth.

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ABSTRACT 67

The Effect of a "Class Smoke Free Pledge" on Breath Carbon Monoxide in Arabic Male Adolescents

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Introduction Arabic male adolescents have a high smoking prevalence. Introduction of "Class smoke-free" pledges have been successful amongst European adolescents but have not been evaluated using objective valid measures. We tested the impact of adding a smoke free pledge strategy to a proven peer-led asthma and smoking prevention program on breath carbon monoxide level (BCO) in male high-school students in Jordan.

Material and Methods We enrolled male students from four high-schools in Irbid, Jordan. Schools were randomly assigned to receive either TAJ (Triple A in Jordan, n= 218) or TAJ-Plus (with added class smoke-free pledge, n=215). We hypothesized that students receiving TAJ-Plus would have greater reduction in BCO levels than those only receiving the TAJ intervention. Asthma and smoking status were assessed by self-administered questionnaires. Smoking outcomes were collected using a BCO Monitor.

Results Both groups had significant reductions in BCO levels post-intervention ($p<0.0001$), however, decreases were greater in TAJ-Plus group (3.9 ± 0.2 vs 4.8 ± 0.2, $p<0.0001$). Intervention effects on BCO over time did not vary by smoking status ($p=0.085$), asthma status ($p=0.602$), or a combination of the two ($p=0.702$).

Conclusions An added smoke-free pledge strategy to a proven peer-led asthma education program appears to be a promising approach to motivate adolescents to abstain from smoking in Jordan. Future research is required to determine if these results can be extended to Jordanian adolescent females.

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POSTERS

ABSTRACT 68

Is this for real?! Smoking cessation groups for Muslim women in Baka-El-Gharbie

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Introduction Smoking prevalence in Israel is highest among Arab men (44% compared with 22.1% among Jews), and lowest among Arab women (6.7% compared with 15% among Jewish women). Smoking is socially unacceptable among women in the Arab population in general, and Muslims in particular. Muslim women are therefore «secret» smokers. The Aim of this project was to provide smoking cessation services within a safe environment for Muslim women. Our objective was to recruit these women into a smoking cessation group within our clinic, and support them throughout the process.

Material and Methods During 2013-2016 we proactively recruited women attending our clinic. The clinic serves 4,000 members, among them 700 women aged 25-65. Recruitment was conducted by all staff- physicians, nurses, social workers and administrative staff. This process was extremely sensitive, as the women's social and family relationships could be affected if their smoking status was exposed. In 2016 we succeeded in starting our first group with 9 women. The group was led by a social worker with significant experience in smoking cessation, and was conducted in Arabic.

Results Most of the women reported beginning to smoke after their marriage, encouraged by their husband. Half of them reported smoking while pregnant. Of 9 participants, 7 attended all 8 sessions. The two women who left the group did so because they were related, and had not known about each other's smoking. Five women did not smoke by the end of the group intervention, 2 of which continued taking smoking cessation medication for 6 months. This is unusual among Meuhedet group participants.

Conclusions This study demonstrates the need for tailored smoking cessation recruitment and intervention among Muslim women in spite of the challenging recruitment process. It is essential to conduct individual preparation with each woman during the recruitment process to avoid social embarrassment.

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ABSTRACT 69

The Development of Measuring Instruments Intention Early Adolescent Smoking on The Behavior: The Study of The Validity of The Rasch Model

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This research aims to develop an instrument to measure the behavior of smoking in early adolescent intention. The smoking behavior of intention is one of the stages of the translation that connecting the psychological attitude of an individual's behavior. The intention is seen as the most effective psychological invalid constructs to predict actual behavior. Many found the behavior of smoking that began at the age of adolescent. Based on this, then preventive efforts need to be made on the smoking behavior of the adolescent. This study used a survey method and interviewing a professional. Researchers have developed a tool to measure the smoking behavior in early adolescent intention totaling 16 items with a rating scale of 1-5. Rasch model is used because it is judged more objective and better able to meet the definition of measurement in the study of the science of psychology. The results of the test the validity of the instrument shows the value of reliability for the respondents obtained is 0.65. This shows the congruency between respondents with instruments used. The reliability values for the item is 0.99, which indicates that the instrument has a very good reliability (alpha >0.94). Based on process research done, measuring instruments intention early adolescent smoking on the behavior of the start made in the form of the scale that has been analyzed with a Rasch model which suggests that the valid scale and reliability so that it can be used to measure the behavior of smoking on intention early adolescent.

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ABSTRACT 70

The Innovation and Use of Vernonia cinerea Jelly Candies for Smoking Cessation, Ubon Ratchathani Region, Thailand

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Introduction The study aims to help develop a method for a smoker to quit cigarettes easy and effectively.

Material and Methods It is a quasi-experimental study. There were totally 50 conscripts enrolled in the study. Each group had 20 subjects. Study (VC) subjects took 5 to 8 pieces of VC jelly candies, whereas those in the control group went 'cold turkey' for 6-month periods. Continuous abstinence rate (CAR), CO levels, nicotine withdrawal levels, side effects, and VC jelly candy satisfaction were investigated via questionnaire items. Both descriptive and analytical statistics were implemented.

Results VC group had a longer smoking duration compared to the control group.There was no statistical significance of CAR at different periods between groups ($p>.05$). Additionally, the differences of CO levels between groups were significantly decreased by 1.89 ppm (95% CI; 0.06, 3.74) at 2-month periods ($p<.05$). For nicotine withdrawal levels, VC jelly candies could possibly better cope with nicotine withdrawal symptoms in VC group than those in the control group. Some common side effects of VC were found including, dry mouth and throat, headache, and insomnia. Those taking VC jelly candies revealed they were overall satisfied with its taste and convenience. Finally, the finding revealed only VC jelly candies and numbers of cigarettes (per day) had been significantly related to smoking cessation behavior ($p= .003, .021$, consecutively).

Conclusions VC jelly candies were investigated to be an alternative for smoking cessation. The overall results both efficacy and toxicity were favorable. Further evaluations of its long-tern side effects as well as efficacy would be addressed.

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ABSTRACT 71

Development and Evaluation of the Effectiveness of Vernonia cinerea (VC) Cookies for Smoking Cessation

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Introduction Vernonia cineea (VC) has been known as a herbal medicine for long time. Recently, it was used for smoking cessation. The study investigated the effectiveness of VC cookies, side effects and satisfaction of its product.

Material and Methods The study was designed as a quasi-experimental study. VC cookies were developed. A total of 63 subjects (high school students) were selected with 75% of them were current smokers. Each subject was selected into the VC and non-VC

(Control) group. The study (VC) group received 5 VC pieces a day, whereas the control (non VC) group received 5 plain cookies per day for six months. All data were collected via a questionnaire paper. The descriptive and analytical analyses including Chi-square (x2) test and Mann-Whitney –test, and adjusted odds ratio and 95% confidence interval were used.

Results The percentages of quitters in the study (VC) group were significantly higher than those in the control (non VC) group throughout 6 month periods (p <.001, .001, and <.001, consecutively). Additionally, average carbon-monoxide (CO) levels of the VC group from 1-month to 6-month periods were significantly different compared to the non VC group (p <.001). Common side effects of VC found, including; mouth and throat, high blood pressure. Finally, there was a significant relationship between VC cookies and cessation behavior (95% CI: 1.65, 251.60).

Conclusions Vernonia cinerea (VC) has been shown the high percentages of continuous abstinence rates with the decrease of CO levels compared to non VC group. Some minor side effects and favorable feedback of VC cookies were also reported. Further investigations of the efficacy and safety of VC products need to be addressed.

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ABSTRACT 72

The Evaluation of the Smoking Cessation Strategies Related to Quit Results across Ubon Ratchathani Region

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Introduction

Smoking cessation services the in Ubon Ratchathani region of Thailand has been established since 2010. Our aim was to evaluate the current smoking cessation strategies related to cessation results among smokers living in the Ubon Ratchathani region.

Material and Methods It is a quasi-experimental, cross-sectional study. All conscripts training at the Sanpasithiprasong Military Base were divided into either mouthwash or 'going cold turkey' groups. Patient data was collected at 1st visit, 2nd visit (3-month), and 3rd visit (6-month). Carbon-monoxide (CO) levels were also measured via CO meter. For demographic information, descriptive statistics including, percentage, frequency, mean, standard deviation (SD) were used. Regarding quit results and CO levels between groups at 1-, 3-, and 6-month periods, chi-square test and mixed effects linear regression were implemented. The relation between variables and quit results was analyzed via multiple logistic regression via enter.

Results Totally there were 1,094 participants, 953 were in 'going cold turkey' group, the other 141 were in mouthwash group. Most participants were married, alcohol drinkers, and smoked cigarettes between 10 and 15 rolls a day. It revealed there were no statistically significant differences of quit results between groups at 3- and 6-month periods (p=.418, .525 respectively). Average CO levels at 6-month periods of the mouthwash group was significantly lower than those in the 'going cold turkey' group by 1.79 ppm (95% CI: -3.14, -0.44, p = .009). Only two variables including, numbers of cigarettes and CO levels were significantly related to the quit results at 6-month periods (p <.05).

Conclusions Overall both mouthwash and 'going cold turkey' strategies were shown to be effective for smoking cessation. Carbon monoxide (CO) levels were significantly different between groups only at 6-month periods (p<.05). Only numbers of cigarette rolls and CO levels were significantly related to the quit results (p =.001).

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ABSTRACT 73

Optimal locations of establishing smoking cessation services for cancer patients in Crete, Greece

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Introduction To identify the optimum geographic locations of establishing smoking cessation services for cancer patients in Crete.

Material and Methods Data (1992-2013) for selected tobacco induced cancers (lung, oral cavity and pharynx, nasal cavity and paranasal sinus, larynx, esophagus, stomach, pancreas, kidney, liver, bladder, uterus, cervix, colon/rectum, ovary and leukemia)

were obtained from the Cancer Registry of Crete (CRC). Age-Adjusted Incidence Rates (AAIR) and Smoking Attributable Fraction (SAF%) were estimated. Smoking rates were estimated by age group and other selected socio-economic and clinical variables. All rates were mapped and analyzed in the ArcGIS 10.3.1. The Getis ord statistic, K-Means (a=0.05) and multi-criteria model builder were performed.

Results The AAIR for tobacco-related cancers was 160 new cases/100,000/year (AAIRmales=222.1/100,000/year; AAIRfemales=98.7/100,000/year). Larynx (SAF=71.4%), esophagus (SAF=42.4%), lung (SAF=41.9%), oral cavity (SAF=38.7%) and bladder (SAF=36.5%) presented the highest SAFs in all the municipalities of Crete. Significant variations were observed in the geographical distribution of all estimated rates (Pvalue<0.05). Higher smoking rates among the cancer patients were observed in two urban centers, as well as in several rural municipalities with lower income rates (mean income/year<9,000euro). Ten different locations were identified as optimal areas for smoking cessation services; alternative locations are also provided.

Conclusions The proposed optimum locations for establishing smoking cessation services are expected to contribute to the enhancement of cancer control in Crete. Furthermore, this study will guide a smoking cessation program in the region of Crete aiming to minimize the burden of tobacco-induced cancers.

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ABSTRACT 74

Development and evaluation of STAR – an expert digital platform supporting training and delivery of cessation interventions by healthcare professionals

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Introduction Access to smoking cessation treatment is limited in many countries. Digital tools could support healthcare professionals (HCPs) who have limited training and resources to deliver evidence-based cessation treatment to patients. This project aims to develop, evaluate and disseminate STAR (Smoking Treatment Advisory Resource) Programme – a novel internet-based platform acting as a support tool and expert system for data gathering, delivery of evidence-based treatment, networking, and training for HCPs, with initial focus on Poland.

Material and Methods The project is conducted as part of Global Bridges RFP: European Program (2017-2019). Phase 1 is devoted to development of STAR, including consultations with Polish HCPs and patients and adaptation of training resources created by the National Centre for Smoking Cessation and Training in the UK. Phase 2 will involve mixed-methods evaluation including quantitative assessments of changes in key indicators from baseline to immediate post-training and at 6-month follow-up, and analysis of STAR usage; as well as qualitative evaluation. Finally, during Phase 3 the STAR Programme will be refined based on results from Phase 2 and promoted among a wider community of HCPs and patients.

Results The presentation will outline the project methods and the STAR Programme.

Conclusions It is expected that the project will result in the development of an acceptable and sustainable Programme that will increase the number of HCPs delivering evidence-based cessation support. STAR will offer possibilities for further development, and adaptation for other settings and countries.

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ABSTRACT 75

Polymorphism rs4680 of gene COMT and rs578776 subunit of the nicotinic cholinoreceptor and drug resistance to anti-Smoking therapy

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Introduction The aim of the study was the identification the relationship of clinical characteristics indicating unfavorable course of tobacco addiction in individuals with drug resistance, with a variation (polymorphism) of the gene nicotinic receptor rs578776 and COMT gene rs4680.

Material and Methods Clinical and psychopathological study was conducted in 53 patients with tobacco dependence of high level (Fagerstroem). All patients were divided into 2 groups - primary (n=29, age 48,5±2,5 years) with a history of pharmacological resistance (to Varenicline, Nicorette ore Citizine) and control (n=24, age of 45.3±2.4 years) without evidence of pharmacological resistance.

Results Patients were similar according to age, duration of current tobacco dependence, differing only in the quantity of cigarettes smoked per day (47±5,1 and 25.2±2,6, p<0.01). Ranked evaluation of the structure of the syndrome of pathological craving for tobacco smoking showed a predominance of the ideational component of maximum level (3,75±0,96 balls) in primary group, medium level (1,67±0,083 balls) – in the control group. The presence of patients with homozygotes for valine in the prime group was significantly higher than in the control (X2=5,78, p=0,0109). The same patterns identified for rs578776 polymorphism of the gene alpha3 subunit of the nicotinic cholinoreceptor. The results of the study

of two haplotypes indicate their association with high intensity of Smoking and the lack of effect of application of standards of tobacco dependence therapy.

Conclusions Pre-clinical-genetic study of patients at the stage of selection of therapy will promote the formation of individualized approach to the treatment of patients with tobacco addiction.

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ABSTRACT 76

Factors affecting smoking cessation in patients with cancer

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Introduction Smoking and passive smoking shows a strong correlation with highly increased risk for lung cancer. 87 percent of lung cancer deaths are due to smoking. Cancer diagnosis is a strong motivation of smoking cessation for patients. Our aim is the clinical significance of smoking cessation after cancer diagnosis and smokers characteristics that influence positively or negatively the success of smoking cessation.

Material and Methods 1020 smokers were examined, 83 with a history of cancer and 937 without cancer. They attended a 12 weeks program with counselling and first line medical treatment of smoking cessation. Exhaled carbon monoxide measured in every visit. Determination of dependence on nicotine, the level of mobilization in terms of trying to quit smoking and deprivation during the quit attempt evaluated.

Results The Continuous Abstinence Rate (CAR) among cancer patients was 55.47% and in non-cancer patients was 67.02%. Sex and educational level did not affect the success of cessation. However, in cancer smokers found that the existence of severe dependence, contrary to the general population, does not affect smoking cessation.

Conclusions Smoking cessation in patients with cancer is accompanied by significant success, although this outcome is poorer compared with non-cancer smokers. Cancer patients must follow well-organized smoking cessation programs as soon as diagnosis is made, in order to have a successful and prolong smoking cessation.

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ABSTRACT 77

Attitudes of Serbian adults towards e-cigarette use

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Introduction To analyze the attitudes of Serbian adults related to e-cigarettes and provide a basis for the development of targeted interventions.

Material and Methods Data were obtained through a survey among the adult population of Serbia conducted via face to face interviewing on a nationally representative sample of 1041 citizens of Serbia 18+ years old.

Results Smoking prevalence was calculated at 39.2% (40% male, 39% female). Prevalence of ever use e-cigarettes was 11% (12% male and 11% female) and of current use was 2%, both for male and female. The main reasons to use e-cigarettes were curiosity (51%), use as a substitution to cigarettes or to reduce the number of cigarettes (23%), for smoking cessation (18%), while 2% use it as it looks fashionable. There was no statistically significant difference for various above listed reasons for e-cigarette use according to sex, type of residence nor age. E-cigarette use didn't have any influence on the smoking pattern of 77% of those who ever used e-cigarette. The majority of citizens think that e-cigarettes with nicotine should be regulated in the same way as tobacco products (63%) and that e-cigarettes are harmful to health (67%), while 28% of smokers think that they could help them to quit smoking.

Conclusions Curiosity was cited as the main reason for trying e-cigarettes among a substantial number of those who had ever tried them, calling for actions aimed to reduce experimentation with e-cigarettes and their wide distribution. Further education on all aspects of e-cigarettes is needed among the general population including on the harmful effects of nicotine in any form.

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ABSTRACT 78

Smoking among vulnerable populations in Serbia

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Introduction The aim of this study is to explore smoking prevalence among six vulnerable population groups in Serbia from 2008 to 2013 and identify the need for smoking prevention and cessation programs for highly vulnerable populations.

Material and Methods Smoking prevalence data were extracted from the databases from the (bio) behavioral surveillance surveys among populations most at risk for HIV and those living with HIV. Self-administered or interviewer administered questionnaires were used in 2008 (n=2,818), 2010 (n=2,305), 2012 (n=1,823) and 2013 (n=3,299). Different sampling methodologies are applied across the groups. Vulnerable groups included: men who have sex with men, (snow-ball sampling (SB) in 2008-2012 and respondent driven sampling (RDS) in 2013); sex workers (SB); Roma youth (RDS); children without parental care living in institutions (cluster sampling); prisoners (cluster sampling); people living with HIV (convenient sampling).

Results More than 50% of respondents in all groups report smoking, with the highest percentage among sex workers (90.5% in 2013). There were not significant changes between survey waves in majority of vulnerable groups.

Conclusions Smoking rates are exceptionally high among vulnerable populations in all age groups, among males and females. There is a concern that smoking prevention and cessation are not prioritized for these populations and ignoring tobacco use in these populations will worsen their already vulnerable health and social position due to the long-term health effects of smoking. Development and implementation of tailored individual and social network-level interventions are needed.

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ABSTRACT 79

Impact of cigarette "price wars" in Ukraine and Moldova

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Introduction In October 2015, tobacco corporations arranged "price wars" in Ukraine by decreasing maximum retail cigarette prices, while specific excise was increased by 40% since January 2016. In Moldova, the industry decreased prices of some brands by 20-30% in December 2014, when government presented plans to increase excises. We estimate price wars' impact on tobacco consumption and revenue.

Material and Methods Monthly data on cigarette prices, excise revenues, and cigarette sales were collected and analyzed.

Results In October 2015–February 2016, average cigarette prices in Ukraine decreased by 11%. For some brands, total tax exceeded the price. Despite increased excise, price wars made cigarettes cheaper, consequently, their sales increased. Price wars were beneficial for the governmental excise revenue because Ukraine applies an excise system with a minimum specific tax floor. In 2016, tobacco excise revenue was 49% higher than in same period of 2015, while excise rate increased by 40%. In Moldova, in the first quarter of 2015 average cigarette prices decreased by 9% and the excise revenue declined by 35%. The government of Moldova planned to increase both specific and ad valorem rates, but after the "price war" it increased the specific rate but decreased ad valorem rate.

Conclusions The tobacco industry uses "price wars" to keep customers and to press governments to adopt profitable excise rates. Tobacco companies can set price wars as they have right to determine maximum retail selling prices. If a country uses "maximum retail prices" to calculate ad valorem excise, regulations should prohibit downward changes of such prices.

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ABSTRACT 80

Impact of the implementation of a smoke free law in Serbia on exposure to tobacco smoke in different settings.

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Introduction The aim of this study was to analyse the impact of the implementation of a smoke free law in Serbia on exposure to tobacco smoke in different settings.

Material and Methods Data were obtained from opinion polls conducted on a representative sample of approximately 1000 (per wave) adult citizens. Opinion polls were conducted using face to face questionnaires in households. The opinion polls were conducted before the law had entered into effect, after three and six months and later annually or biannually (2010, 2011, 2012, 2014, 2015).

Results Comparing 2010 with 2015 we found a decrease in the percentage of citizens exposed to tobacco smoke as following: at work from 45% to 23%, in educational facilities from 44% to 6%, in the hospitality sector from 72% to 56% (partial smoking ban according to law) and in houses of friends/relatives from 83% to 76%. Among the total population (regardless of smoking status) citizens were most exposed to tobacco smoke in their own homes (6.2 hours a day in average) and at work (5.4 hours a day in average).

Conclusions Results indicate that the implementation of the Smoke Free Law in Serbia led to a decrease in exposure to tobacco smoke in all places where smoking is banned. Legislation should be improved

to protect customers and workers from exposure to tobacco smoke in the hospitality sector. It is necessary to improve compliance with the law as 23% of the population is exposed to tobacco smoke at work despite the ban. High exposure to tobacco smoke in citizens' homes calls for implementation of campaigns aimed at the general population.

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ABSTRACT 81

The effects of Smoke Free Work Hours in Danish municipalities

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Since 2011, 15 Danish municipalities have implemented smoke free work hours, meaning that an employee working for the municipality may not smoke in his or her work time (about 7,5 hours a day). This is a much stricter prevention method, than former strategies preventing smoking mostly at locations and not during working hours. Research concerning the effects of smoke free work hours is non-existing. We therefore wish to look into the specific outcomes of smoke free work hours related to smoking prevalence, sickness leave and work place culture through a semi-experimental study. As the decision to implement smoke free work hours is administrative and/or political, we will not be able to randomize the intervention. Instead, we use one or more Danish municipality who are planning to implement smoke free work hours as an intervention-group and similar municipalities as control group. Data will be collected both through questionnaires about employees smoking prevalence, sickness leave and work place community, and through register data about the citizens employed in the municipalities in question. This will primarily be data on socio-economic status and health. In this way we can compare the municipalities implementing smoke free work hours with each other and find similar control municipalities. We hope, that this study can contribute to understanding the specific outcomes of implementing smoke free work hours, focusing both on health outcomes and work place culture.

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ABSTRACT 82

To what extend the national tuberculosis control center in Armenia follows the smoke-free standards and policies

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Introduction Tobacco use was associated with twofold increase in the risk of tuberculosis (TB) infection. Implementation of tobacco control activities is essential in TB management processes. The Armenian tobacco control law prohibits smoking in healthcare facilities, however, enforcement of the ban is insufficient. We assessed the level of compliance of the National TB Control Center, the largest inpatient TB facility in Armenia, with tobacco control standards and evidence based recommendations.

Material and Methods Interviewers conducted observations in the hospital using a checklist developed based on the international tobacco control and Joint Commission International standards (JCI). The assessed items were grouped into three standards and scored from zero to ten.

Results The "No Smoking" signs were displayed only in the lobby, while the statements on financial and other penalties were absent (3.5/10). No direct tobacco advertisement, tobacco products sales and functional items with tobacco logotypes were found in the hospital, however functional items (ashtrays and lighters) were present in the hospital (7.0/10). Proofs indicative of smoking practices (tobacco smoke, tobacco litter and smoking staff) were observed throughout the building (0/10). The mean score of standards was 3.5.

Conclusions The tobacco control standards were met partially (35%). We recommend to take a leadership and enforce the JCI standards and tobacco control law to protect and increase cessation among TB patients/staff and further promote projection of the inpatient TB services' healthy image, demonstrating commitment to health in Armenia, a country in transition with high smoking and TB burden.

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ABSTRACT 83

Characteristics and attitudes towards smoking among Greek school teachers

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Introduction Teachers play a key role in students' attitudes and

behavior towards smoking. We aimed to investigate characteristics and attitudes towards tobacco smoking among Greek teachers.

Material and Methods The sampling frame consisted of schools in the two biggest cities of Greece. Teachers were invited to register online and complete an electronic questionnaire. Altogether, 1.032 participants enrolled in the study.

Results Current smoking was reported by 25.6% of the respondents. 13.6% reported smoking during the first 60 minutes after awakening, 2.7% reported difficulty refraining from smoking in places were it is forbidden and 5.6% reported smoking even if sick and in bed most of the day. A total of 22.6% reported successful smoking cessation and 15.5% reported unsuccessful quit attempts. Of those who reported smoking, 20.6% expressed health concerns, 18.1% reported intention to quit and 9.5% stated they would consult a physician or a smoking cessation clinic. The majority (98.4%) classified nicotine as an addictive substance, yet a smaller proportion of the respondents (66.2%) compared the addictive effect of nicotine to that of heroin and cocaine. Almost all teachers (98.5%) agreed with the development of smoking prevention activities among students.

Conclusions Greek teachers display a lower smoking rate as compared to the general adult Greek population, a similar smoking rate to the general adult European population and a considerable percentage of smoking cessation rate. Public health efforts should focus on bridging teachers' intention to quit with efficient cessation support and on pairing smoking prevention programs with their intention to participate.

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ABSTRACT 84

Tobacco control law compliance in the Greek school grounds and attitudes of school teachers towards prevention of smoking and tobacco control policies

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Introduction Proper enforcement of the tobacco control law in schools prevents students from smoking. Our study aimed to investigate compliance with tobacco control legislation in Greek schools and teachers' attitudes towards smoking prevention and tobacco control policies.

Material and Methods Twenty-six schools of Athens and Thessaloniki were selected during 2014-2015 school year. An online registration system was created and an electronic questionnaire was used to collect data. A total of 1.032 teachers were enrolled in the study.

Results A large proportion of teachers (63.8%) reported that smoking is permitted on school premises. Of those teachers who smoke, 19.0% reported smoking on school premises. No disciplinary measures were reported for teachers who smoke on school premises, except for 1.6% who recalled receiving a reprimand from their principal. Over half of the respondents (52.4%) reported that their students smoke on school premises. Almost all teachers (98.4%) stated they would take measures to prevent students from smoking and 17.9% believe that they serve as health models for their students. The majority of teachers (92.1%) reported that they support smoking bans in public places, as well as their enforcement in outdoor public spaces (82.5%).

Conclusions Tobacco control law in the school grounds is violated, both from teachers and students. Smoke-free school environment in Greece remains a challenge. Enforcement of tobacco control law must be placed at the top of the health policies agenda for Greece.

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ABSTRACT 85

Do women differ in Waterpipe Smoking: Do habits change over time?

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Introduction Waterpipe use (WP) has become a major contributor to female tobacco use in the Middle East and other regions of the world. In recent reports, WP use was considered a symbol of female emancipation, where women smokers reported feeling social, attractive, and defiant of traditional gender norms when smoking WP. This study aims to examine changes in WP smoking over three points of time before, during, and after Ramadan among a sample of Jordanian women.

Material and Methods A repeated measure design was used to assess differences in a 109 Jordanian women's waterpipe smoking before, during and after Ramadan. Using the Women Tobacco Smoking Questionnaire, participants recruited from two hospitals maternal outpatients clinics were asked about their tobacco smoking status over three periods of time (i.e., before, during, and after

Ramadan). Their nicotine dependence level was also assessed using a nicotine dependence scale.

Results Age ranged between 17-56 years (m= 25.97, SD ± 9.02) and the majority held a university degree. The percentage of women who smoked WP daily increased significantly between the study's three time points 19%, 32.1%, and 39.5% for before, during, and after Ramadan respectively. Smoking one «head» of WP tobacco also significantly increased from 56.9% for during to 67.9% for after Ramadan. While almost half (48.6%) the participants scores reflected mild nicotine dependency while 23.9% showed a sever level of dependence.

Conclusions This is the first study to report change in WP smoking habits, also it is the first to report nicotine dependence level among women within this Jordanian context.

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ABSTRACT 86

The Preparation of Being Part of Smoke-Free Ubon Ratchathani University

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The Health Professional Network for Anti-Tobacco Thai Society has selected Ubon Ratchathani University (UBU) to be one of fifteen universities enrolled into the program called "The Preparation of Being Part of Smoke Free». The president has entirely supported the policies throughout the project with the network members including, the health promoting hospital; Bua-Wat, the military-based hospital and the local population. The preparation activities included, 1. World No Tobacco Day, 2. The development of the innovations for smoking cessation including, cookies and jelly candies. Additionally, Pharsai Clinic team together with Bua-Wat health promoting hospital underwent the screening procedure, counseling, and cessation treatment for those who wanted to quit smoking. In term of university student activities, UBU required all new students (2015) to undergo the full screening tests including smoking history. CMP opened the course called "Addictive substances and tobacco related to health condition". It aimed to help students gain more knowledge and information related to the tobacco industry and the dangers of tobacco products.The outcomes of the project were favorable. Ubon Ratchathani University still keeps on the same policies related to tobacco campaigns and continue to work towards being a Smoke-Free University. Funding Thai Government.

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ABSTRACT 87

Smoking behaviour of lung and colorectal cancer patients during and after diagnosis. Which factors hinder smoking cessation?

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Introduction To assess the smoking behaviour of Lung Cancer (LC) and Colorectal (CRC) patients at the time of diagnosis and one year after diagnosis.

Material and Methods The study took place in the island of Crete, Greece. Data (LC patients=4,421; CRC patients=3,609) were derived from the Cancer Registry of Crete (1992-2010). Participants with I-III stage primary cancer and confirmed diagnosis (histologically/cytologically) were included. Patients with unknown stage were excluded after testing for potential statistical bias. Kruskal-Wallis (one-way analyses of variance) and logistic regression models estimated the risk of not quitting smoking after diagnosis. All tests were two-tailed (a=0.05).

Results Overall, 75.1% of LC and 51.4% of CRC patients were current smokers at the time of diagnosis. One year after diagnosis 49.5%% of the LC and 38.1% of the CRC patients were still smoking. Males, public insurance, high number of pack/years, not receiving chemotherapy/radiotherapy, not undergoing surgery, higher number of co-morbidities, advanced cancer stage (III) and alcohol consumption were significant predictors of not quitting smoking one year after diagnosis ($p<0.05$) among LC patients. In CRC patients, the above parameters were significantly associated, although the risk was higher for uninsured patients or patients with private insurance. Additionally, disease stage wasn't found to have an impact on CRC patients smoking habits upon diagnosis.

Conclusions The study findings highlight the urgent need of addressing more effectively tobacco treatment in cancer patients who are smokers. Physician's role should be enhanced towards smoking cessation while integration with anti-smoking centers is considered crucial.

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ABSTRACT 88

Knowledge and attitude towards smoking of pregnant women in Greece

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Introduction The aim of the study was to evaluate the smoking status of pregnant women and their knowledge and attitude towards smoking cessation, in Greece.

Material and Methods The research was conducted between May and December 2016 in two public Maternity hospitals in Athens, Greece. A structured questionnaire was filled in by 246 pregnant women.

Results 17.07% of pregnant women reported that they continued to smoke during pregnancy. Almost all pregnant smokers (81,3%) reported that they had considered quitting smoking and 69,9% of them had actually tried to quit. 50% of them failed quitting. 69.9% of pregnant smokers reported that they were not adequately supported by their partner and family in their attempt to quit smoking. 66.2% of pregnant smokers smoke the majority of their cigarettes in public places (cafeterias and restaurants) and only 10.8% reported also smoking at home. 22.5% of pregnant women have tried an e-cigarette. 7.8% of women reported been exposed to passive smoking by their partner, 40.3% reported that the main source of passive smoking exposure was in public places. Finally 91.2% reported having been informed about the risks of active and passive smoking during pregnancy. The main source of information was reported to be the internet (17.1%), instead of the health care professionals (14.9%).

Conclusions Having not being informed and helped adequately, a significant percentage of pregnant women continued to smoke throughout their pregnancy. The failure in imposing the clean indoor air law in public places in Greece has also contributed to the increased passive smoking exposure.

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ABSTRACT 89

Measuring for Change: TackSHS Work Package 4

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Second-hand smoke (SHS) exposure is a serious health hazard for children, contributing to harms including glue ear and meningitis. A range of interventions to protect children from SHS have been developed with varying success. One area that shows promise is personalised feedback interventions, using measures such as household air quality to encourage parents to keep their homes smoke-free. Measuring for Change is a pre-post study with arms in four European countries, testing a novel air quality feedback intervention. The study, which runs from 2016-2018, uses a new low-cost air quality monitor and innovative text- and email-based communications with parents/carers, to develop an inexpensive intervention which offers rapid feedback on the impact of smoking on indoor air quality to motivate behaviour change and encourage parents to make their homes smoke-free. This presentation will discuss a) the roots of the Measuring for Change study in a previous intervention development project (AFRESH), b) the process and the aims of the study, and c) our learning experiences from the early stages of the work. Measuring for Change is part of the TackSHS project, funded by the European Union's Horizon 2020 Programme (Grant No 681040).

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ABSTRACT 90

Rotation of tobacco pack health warnings by the tobacco industry in Ukraine

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Introduction Tobacco pack health warnings are an effective channel to inform smokers of the dangers they face. The FCTC (Article 11, item 2b) requires the rotation of health warnings. Since October 2012, 10 large (50% of the pack surface area) graphic health warnings on tobacco packaging have been introduced in Ukraine. This study aims to analyze the distribution of these 10 health warnings on cigarette packs purchased by Ukrainian smokers.

Material and Methods In three nationally representative cross-sectional surveys conducted in Ukraine in 2013, 2014 and 2015 and covering not less than 2000 respondents each year, during face-to-face interviews all participating smokers were asked to demonstrate a cigarette pack. The kinds of health warnings were recorded.

Results The distribution of 10 pictorial health warnings was uneven in all three surveys but consistent over time. The most frequently printed warnings were those related to lung cancer (30-37% of all current warnings on Ukrainian cigarette packs) and early death of smokers (18-21%). All other warnings were only seen on 2-13% of packs. The least seen were those related to benefits of quitting

(2-6%), skin aging (3-6%) and intrauterine tobacco-related harm (3-5%).

Conclusions Tobacco industry consistently overproduces packs with certain health warnings on tobacco packs to minimize the presentation of others. This might be caused by the industry's estimates of comparative potential impact various health warnings might have on users. To properly inform smokers of various aspect of tobacco-related harm, national legislation needs to require each health warning should appear on an equal number of packages.

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ABSTRACT 91

Evidence-based tobacco dependence treatment support for mental health/addiction patients in Portugal (Brazil-Portugal Champions Project)

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Introduction To reduce tobacco-related health disparities among Portuguese with substance use disorders (SUD), by training treatment providers and developing a select cadre of advocates—Champions—within the Portuguese SUD treatment system. The project will specifically target the providers and clients of Integrated Response Centers (Centros de Resposta Integrada-CRI) in Portugal.

Material and Methods We aim to directly train 150 professionals involved in SUD treatment in 15 CRI units, with an average of 10 professionals per unit. In addition, we are going to develop 15 Champions (1 per CRI unit) among these 150 professionals, to advocate for effective tobacco control policy for SUD patients, and also for the general population. We estimate that our intervention can benefit approximately 16,416 smokers, among those who searched for treatment for another SUD in CRI units. The planned project consists on (i) Basic training and (ii) Champion development. We are going to offer training utilizing the peer credibility and capacity of the CRI and the expertise of the Clima Clinic. We will also search for and make use of key stakeholders and peer leaders from the CRI to broaden information distribution and follow-up avenues; expand expertise; and maximize data collection capability.

Assessment Our evaluation design will use Moore's analytic framework to assess learning outcomes. Following this rationale, we plan to collect data from (i) Champions, (ii) other members of the clinical staff and (iii) CRI units (aggregated individual data), using the first five Moore's levels: 'Participation'; 'Satisfaction'; 'Learning – Knowledge'; 'Learning – Competence'; and 'Performance'.

Funding This project (PI: Dr. Castaldelli-Maia) receives a Pfizer Independent Grant for Learning and Change (IGLC) managed by Global Bridges (Healthcare Alliance for Tobacco Dependence Treatment) hosted at the Mayo Clinic, to support free smoking cessation treatment training in addiction/mental health care units in Portugal (grant IGLC 25629313).

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ABSTRACT 92

Differences in reported vs. Measured Nicotine Concentrations among the most popular e-cigarette refill liquids across 9 European Countries

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Introduction This study aimed to identify and evaluate potential discrepancies in the reported vs. measured nicotine content of e-liquids.

Material and Methods Within the Horizon2020, EUREST-PLUS study, 122 of the most commonly sold e-liquids in 9 European Countries were randomly selected and purchased. A quantitative liquid chromatography - mass spectrometry based analysis was performed so as to assess nicotine concentrations.

Results Out of the 122 samples analyzed, differences in the concentrations of nicotine compared to the indicated levels on the vial were found. Refill vials from France had an increase in nicotine content between 3.7% up to 47.9% higher than the reported amount, while on the contrary samples from Romania were found to over report their nicotine content (-49.1% up to -9.9%). Samples from other countries identified both increased and decreased nicotine concentrations. Polish e-liquids had a range from -6.4% up to +37.2% in nicotine content, German samples (-71.7% up to +24.5%), Netherlands samples (-6.5% up to +23.6%), United Kingdom samples (-12.8% up to 22.9%), Spanish samples (-46.3% up to 7.2%), Hungarian samples (-41.9% up to 19,9%) and Greek samples (-34.5% up to 17.5%). Furthermore, out of all 122 samples, 12 samples exceeded the limit of 20 mg/ml based on the indicted nicotine levels of the vial and 3 samples were marketed to exceeded the limit.

Conclusions Results indicated that the regulations concerning nicotine content of the e-cigarette products are not yet fully adapted. Stricter strategies and surveillance necessary so that the products will be harmonized with the EU TPD.

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ABSTRACT 93

EPACTT 2 – Development of a EuroPean Accredited Curriculum on Tobacco Treatment

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Introduction The aim of the EPACTT2 project is to: 1) translate and disseminate the European Network for Smoking Prevention (ENSP) Network's Guidelines for treating tobacco dependence in 15 languages. 2) train and accredit professionals in Europe in smoking cessation and cutting edge issues in tobacco control.

Material and Methods A multi-country team has been assembled to support local adaptation and dissemination of the training program and guidelines. The updated 2017 ENSP guidelines will be translated into local language and disseminated in an e-format to health care professionals (>1000) in all ENSP associated network via project partners and linkages to professional associations in all 28 EU Member States and the wider European region. An interactive online curriculum will be developed in the 15 languages based on the ENSP guidelines and housed in a dedicated e-learning platform on the ENSP website. The online training will be fully accredited by the official European Accreditation Council for Continuing Medical Education (EACCME). Within all the participating countries we will train and accredit approx. 45 health care professionals per country. A pre-post evaluation will be used to assess the program's impact increases provider knowledge, attitudes, beliefs, perceived behavioral control, intentions and rates of provider's tobacco treatment delivery.

Conclusions Our project's future direction is to continue the development and expansion of an accredited curriculum for tobacco cessation in Europe, enhance the formulation of a network of healthcare professionals, dedicated to advancing evidence-based tobacco dependence treatment, facilitate and broaden network's outreach in Eastern and Southern Europe.

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ABSTRACT 94

Perceived Role and Self-efficacy to Provide Smoking Cessation Counseling: Results from a One-day Training Seminar on Health Care Providers

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Introduction The purpose of the study was to evaluate the effectiveness of a one-day training program in changing the perceptual role of participants and their self-efficacy to introduce tobacco treatment delivery into their daily clinical practice in the near future.

Material and Methods The training program took place in Brussels in April 2016. A pre-post study design was used to evaluate the effectiveness and data from 44 health care professionals from Eastern European Region were analyzed. A 15-item survey was used for the data collection.

Results The training program managed to establish new social and clinical norms related to tobacco dependence treatment in primary care practice settings, increase providers perceptions about the ease of delivering tobacco treatment and self-efficacy to deliver

smoking cessation treatment. All six items of perceived behavioral control were significantly improved, 3 out of 4 items of subjective norms, 3 out of 5 items of attitudes significantly changed and 5 out of 6 items of self-efficacy. Immediately after the intervention health care professionals were more confident to advice their patient to quit smoking, mean (SD)= 8.77(1.6) vs. 8.28(2.3), p=0.019; provide brief smoking cessation counseling, 8.72(1.6) vs. 8.03(2.7), p<0.001; provide counseling to patients not ready to quit 8.16(1.8) vs. 7.11(1.9), p<0.001; prescribe pharmacotherapy 6.64(2.6) vs. 5.89(3.6), p=0.003 and provide smoking cessation counselling 8.40(2.0) vs. 7.11(3.1), p<0.001.

Conclusions The results indicate that a one-day smoking cessation training program, can alter attitudes, subjective norms/normative beliefs, perceived behavioral control and intentions of the health care professionals in delivering tobacco dependence treatment interventions.

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ABSTRACT 95

The TackSHS Project. Tackling secondhand tobacco smoke and e-cigarette emissions: exposure assessment, novel interventions, impact on lung diseases and economic burden in diverse European populations

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Introduction Exposure to secondhand smoke (SHS) is classified as a Group 1 carcinogen by the International Agency for Research on cancer and has been shown to have adverse health effects on adults and children, including heart and respiratory diseases. Electronic cigarettes (e-cigarettes) have irrupted in the market with sales volumes increasing considerably across the EU. The TackSHS Project is aimed to elucidate the impact that SHS and e-cigarette aerosols have on the respiratory health and how health effects vary according to socio-economic parameters with particular emphasis on specific vulnerable groups (patients suffering from chronic lung diseases, heavy smokers, etc.).

Material and Methods Through an integrated series of workpackages, the TackSHS Project will investigate the determinants of SHS exposure, both assessed at the individual level and in the environment (survey and SHS assessment in 12 countries), the overall burden of disease caused (lung diseases and cardiovascular diseases), including the specific respiratory health changes in patients and healthy people, the economic impact of both mortality and morbidity caused by these exposures, the methods to characterize these exposures and novel interventions to reduce them.

Results This integrated approach will enable significant step-change beyond the state-of-the-art in understanding SHS and e-cigarette aerosols exposure. The Project will put together for the first time the first-line research teams, and the conjunction of the workpackages will result in a step forward to tackle exposure to SHS and e-cigarettes aerosols.

Conclusions TackSHS is a four-year project that started in 2015.

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ABSTRACT 96

Tobacco control and smoking cessation in healthcare system in Russia: successes and challenges

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Introduction Russian Tobacco control(TC) law supports integration of Smoking cessation (SC) in healthcare services. Still the implementation of those remains a challenge.

Material and Methods The study aims to examine to what extent the TC law is implemented with regards of rising public awareness for consequences of smoking and provision of smoking cessation services. Combined results of different evaluation studies and experts' assessment results for MPOWER were analysed.

Results The number of prevention service units, providing SC services, including counselling and pharmaceutical treatment has grown from 503 to 3065 in three years but 71% of smoking cessation units are badly understaffed. Still low compliance to smoke-free policies in HC institutions: compliance score- 3 out of 10. Smoking prevalence is still high among health professionals: 28% in men, and 17.4% in women. Awareness of TC law is low: 58.7% had only heard and 9% not even heard of it with higher awareness in smokers vs. never smokers (35% vs. 30.8%, $p<.05$) and higher among doctors (35.8%), vs. nurses (28.9%, $p<0{,}001$). Smokers supported smoke-free policies ($p<.001$) less than non-smokers . Smokers saw themselves less responsible than non-smokers for implementing TC policies in health institutions ($p<.001$). Smoking cessation first line medication is purchased at high costs.

Conclusions Active measures are needed to implement TC policies in health institutions.

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ABSTRACT 97

What Polish schoolchildren know about cancer prevention and tobacco use? Results of pilot survey from 32 schools

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Introduction Between 2013-2015 the Maria Sklodowska-Curie Institute - Oncology Center in Warsaw, Poland was responsible for the coordination of a nationwide educational program «School promoting the European Code Against Cancer». Over 770,000 students aged 11-15 years old have participated in the program. The aim of this work is to present results of the pilot survey on schoolchildren's knowledge on cancer prevention.

Material and Methods 32 schools and 1031 students aged 11-15 years old participated in the survey. We used a short questionnaire containing 14 single choice questions concerning European Code Against Cancer recommendations, including five questions concerning issues related with tobacco use. Data were collected between October and November 2014.

Results The majority of students had a high score of knowledge on cancer prevention, as the average percentage of correct answers in all schools was at the level of 71%. Highest scores were obtained for questions concerning tobacco smoking. The majority (93%) of students are aware that secondhand smoke is harmful, 88% know that lung cancer is the leading cause of cancer death in Poland and 84% know that tobacco use is the leading cause of the worldwide cancer burden.

Conclusions Results of our pilot study suggest that educational activities on cancer prevention are an effective measure of increasing schoolchildren health literacy. The vast majority of students is highly aware of the harm related to tobacco use.

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ABSTRACT 98

The prevalence of cigarette smoking and its correlates of depressive and anxiety symptoms among university students in Central Serbia

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The cigarette smoking of younger population has been an issue of growing concern globally, since young people already face various life situations which can enhance the occurrence of depression and anxiety disorders. Aim and objective. The aim of this study is to determine the prevalence of cigarette smoking and its correlates of depressive and anxiety symptoms in university students population. Methods. The study was conducted as cross sectional study of average on the sample of 1940 university students by using a self-assessment standardized questionnaire of World Health Organization. The survey, in addition to questions concerning the cigarette smoking habits in youth, also includes the Beck Depression inventory and Beck Anxiety Inventory. Results. Based on the results of this study, the prevalence of cigarette smoking in students population is about 18%. The depressive symptoms were significantly related to the cigarette smoking ($p<0{,}005$). Prevalence of depressive symptoms of cigarette smoking

students is 23.5%. In terms of anxiety symptoms, there were significantly related to cigarette smoking (p=0,002). Prevalence of anxiety symptoms of cigarette smoking students is 41.2%. Conclusion. This is one of the largest study examining smoking habits and its correlates of depressive and anxiety symptoms in a sample of university students in Serbia. The results obtained through this study indicate the importance of cigarette smoking prevention among university students can be essential for the mental health promotion and prevention of mental disorders.

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ABSTRACT 99

Obesity in Adolescent Smokers: The Irbid-TRY

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Introduction Adult waterpipe smokers are at increased risk of obesity. However, it is unclear if adolescents, who are at the epicenter of the global waterpipe epidemic, are at similar risk. Therefore, the current study examined the relationship of waterpipe smoking with obesity adolescents.

Material and Methods A sample of 2313 boys and girls in grades 7-10 were surveyed about waterpipe and cigarette use in Jordan. Weight, body mass index (BMI), waist circumference, waist/hip ratio, and waist/height ratio were measured. Obesity indices were assessed as a function of smoking status (never used tobacco, current waterpipe only, current cigarettes only, and current dual smoking) as well as frequency of use of each tobacco product.

Results About 51.5% of adolescents smoked waterpipe whereas 29.8% were overweight/obese. Students who smoked waterpipe weekly had two-fold greater odds of being obese than never-smokers (OR= 2.14; 95% CI= 1.08-4.21). Approximately 12% of students currently smoked waterpipe but not cigarettes, 2% smoked cigarettes but not waterpipe, and 11% smoked both. Body weight and age- and gender-specific BMI were greater for waterpipe and dual users compared to never users, especially for dual vs. never users (58.6± 0.8 vs. 55.6±0.4, and 0.48±0.07 vs. 0.29±0.03, respectively; $p<0.005$).

Conclusions For dual users, greater frequency of tobacco use was associated with greater weight and BMI. Waterpipe and dual use is associated with greater obesity, BMI, and body weight among Jordanian adolescents. Given the rising epidemics of both tobacco use and obesity among Middle Eastern adolescents, the clustering of these risk factors warrants public health action.

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