EDITORIAL

More than 60 years ago, in 1951, two important epidemiological studies introduced by R. Doll et al., and J. Wynder et al., using modern scientific approach demonstrated clear relationship between smoking and lung cancer. More than 10 years later, the U.S. Surgeon General's Report on Smoking and Health described in a more comprehensive way serious damages of human health caused by smoking. In 1988, another U.S. Surgeon General's Report branded smoking as a highly addictive behaviour, and nicotine as a strong psychoactive substance with similar potency to develop dependence as heroine and cocaine. Each year, hundreds of studies present new results about – formerly not anticipated – risks of smoking for health. The newest research described nicotine as a human neuroterratogen with significant potency to increase the risks of conduct and cognitive disorders, ADHD and vulnerability to drug abuse and addiction among children exposed in utero. According to FOAD hypothesis (fetal origin of adult disease), maternal smoking during pregnancy causes permanent fetal adaptation to sub-optimal uteral environment in structure, physiology, and metabolism. Such re-programming is beneficial for short-term fetal survival but might be the risk for obesity, type 2 diabetes, and cardiovascular diseases in adulthood. A substantial progress has been made in knowledge about health risks of smoking for children and adults involuntarily exposed to environmental tobacco smoke (secondhand, thirdhand smoke).

This special issue of the Central European Journal of Public Health includes some new aspects of smoking. Toxicological methods evaluated and described variations in nicotine yields in particular cigarettes (Goniewicz M. et al.), and also large variability in lead and arsenic content in tobacco and cigarettes (Lazarević K. et al.). These findings influence the level of smokers' exposure to harmful bioactive chemicals, which are associated with specific, direct health risks. Authors propose continual monitoring of levels of some important chemical compounds to improve more accurate exposure evaluation.

The results of the experimental study have found clear inflammatory and cytotoxic responses in lung tissues after exposure of bronchoalveolar cells to particulate matters corresponding to daily smoking of 8 cigarettes. The study contributes to understanding of the pathways of lung injury at the beginning of disease development (Hurbánková M. et al.).

Commonly accepted theses that smoking damages not only active but also passive smokers, sustain two epidemiologic studies from Serbia: exposure to environmental tobacco smoke enhanced the frequency of respiratory symptoms and illness among women and their more frequent absences from work (Stanković A. et al.). Significantly higher number of cases of wheezing, bronchitis, headache, and fatigue have been found in children exposed to household smoking (Stošić L. et al). Higher morbidity of children caused by parental smoking at homes and cars is really serious problem, as legislative bans of smoking in public places are not applied for private environment. Involuntarily exposed children cannot leave polluted spaces and protect themselves from dangerous chemicals.

Tobacco control strategies were developed and declared in the WHO Framework Convention on Tobacco Control (WHO FCTC). This document offered wide range of information and recommendations to governments, non-government organizations, and health professionals. Many countries worldwide have ratified FCTC and implemented the recommendations into their national anti-tobacco laws; in European Union, only politics from the Czech Republic refused ratification. Many countries have made progress in adopting legislation for tobacco control, however, the tobacco epidemic continues. The tobacco industry has launched multimillion dollar campaigns to combat rules and laws for tobacco control.

As some publications in this special issue described, the results of implemented tobacco control are inconclusive (Padjen I. et al.). Thus the further development of more effective plans for tobacco control (Erguder T. et al.; Loubeau P. R.; Paulik E. et al.) is warranted together with soliciting higher public support both among no-smokers and tobacco users (Fronczak A. et al.), and especially among adolescents (Lotrean L. M., deVries H.). In this specific segment of population, dissatisfaction with body weight may be the most important motivation for smoking and aspects of effective weight control must be involved into the preventive intervention (Pénzes M. et al.).

There are two main approaches to reduce number of smokers: (1) primary preventive interventions targeted on children with the aim to sustain their long-life decision not to smoke, and (2) motivation of smokers to stop smoking and provision of medical support for this important change of behaviour. The majority of primary preventive programmes are school-based and besides intervention they usually include also detection of factors determining and predicting the initiation and future attitudes to smoking. Some new experiences were obtained from the unique programme "Non-smoking Is Normal" targeting children aged 6−11 years. For such young children, models of smoking parents and other relatives are the most important limits of the effective anti-smoking primary prevention, while the social environment of the family has only marginal influence (Hrubá D., Žaloudíková I.).

In the past two decades, public health initiatives on smoking cessation have substantially increased. There is common consent that smoking cessation any time during the smoker's life is beneficial for his/her health. Those who stop smoking in early middle age substantially lower the risk of being killed by tobacco; the earlier break of the smoking habit, the quicker improvement of health. Epidemiologic data on decreasing of smoking-related morbidity and mortality can be demonstrated within few years after the significant reduction of smoking population rate. Smoking cessation is beneficial even for people with serious diseases: the changes in former smokers life style could slow down the progression, delay the acute exacerbation, and improve function. Yet smoking is strongly dependent behaviour and for some smokers it is hard to make the right decision although they know that each cigarette could be the last one for them. Such example is described in the study involving patients with intracranial aneurysm: one year after the treatment, only less than one fifth of followed up smokers were smoke-free (Zvolská K. et al.).

Physicians and all health professionals have the essential role in smoking cessation: they must be good models (of healthy life style), convincing advisers (personifying the individual risk of smoking), educated counsellors (offering behavioural and medical support). Thus the "teaching about smoking" is the part of pre-gradual curriculum for medical students and other specialists, and of post-gradual education. Two publications describe experiences from the 3rd Faculty of Medicine, Charles University, Prague (Schneidrová D. et al.) and Hungarian dental professionals (Antal M. et al).

Smoking is the single most preventable risk factor of premature death. Smoking increases health care costs, decreases workers' productivity. Growing tobacco occupies agricultural land. Global tobacco epidemic is worse today than 50 years ago and may be worse in another 50 years. Tobacco companies kill for profit. To improve their public image, they offer research funding. Accepting such donations is controversial, as unfavourable results could not be published. This issue of the Central European Journal of Public Health contributes little to the "anti-tobacco literature" from the Central European region; all publications had no tobacco industry support.

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