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# Expert opinion for the Polish Chamber of Physicians and Dentists on innovative tobacco products and electronic cigarettes

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## **ABSTRACT**

This article is an amended version of the expert opinion dated 15 January 2019, prepared by the authors at the request of the Polish Chamber of Physicians and Dentists in response to the letter from the Ministry of Finance (no. PA5.8190.84.2018) regarding innovative tobacco products and electronic cigarettes. The article argues that the inclusion of both categories of products within the scope of excise duties is a rational regulatory solution. Such an approach allows for meeting not only the fiscal goal of excise taxation, but also the social goal in the area of public health protection (particularly with respect to adolescents).

KEY WORDS: e-cigarette, excise, innovative tobacco product, nicotine, tobacco control policy.

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Cigarette smoking and the resulting diseases remain a leading public health problem in Poland. It is estimated that nearly 8 million Poles still smoke conventional cigarettes – almost 19% of women and about 28% of men [1]. Poles consume 40 billion cigarettes per year. Considering the size of the current exposure to harmful tobacco smoke, as well as its history (at the beginning of the 1980s, Poland was the largest consumer of cigarettes per capita in the world – Fig. 1 [2, 3]), the health toll of smoking in Poland is still dramatic.

Cigarette smoking is the primary causal factor responsible for Poland's extremely high rates of premature adult mortality. In 2017, as many as 37% of men and 17% of women in Poland died before reaching the age of 65 years. This is in stark contrast with many Western European countries, where around 20% of men and 11% of women die before the age of 65 years (Fig. 2 [4]).

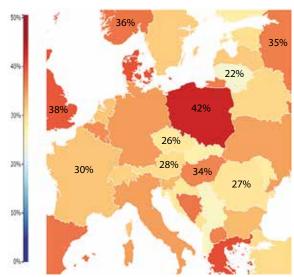


FIG. 1. Smoking prevalence in 1980 [2]

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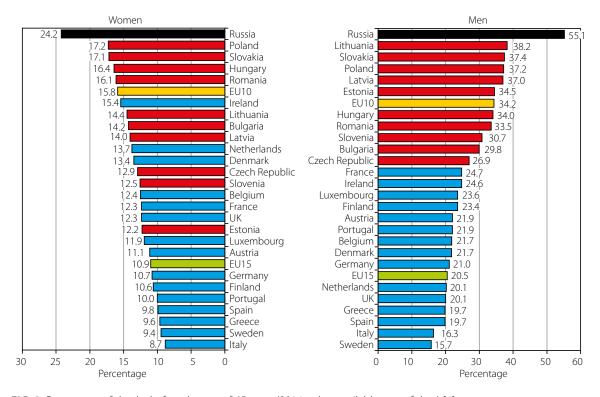


FIG. 2. Percentage of deaths before the age of 65 years (2014 or last available year of data) [4]

Given this situation, it is surprising that in 2016 the Polish government terminated the National Program for Limiting the Health Consequences of Smoking Tobacco [5] (implemented on the basis of the Tobacco Control Act [6] in the mid-1990s [7]). The lack of a clear pricing policy for cigarettes, which was part of the provisions of the terminated program, also seems to be one of the reasons for the current situation, in which the prices of cigarettes in Poland have stopped increasing, and they remain among the lowest in the European Union.

In the last decade, dozens of products, frequently referred to as nicotine delivery devices (NDDs), a category which includes electronic cigarettes ('e-cigarettes') and so-called innovative tobacco products (for example, 'heat-not-burn' products), have been introduced into the market. This trend is present throughout Europe and the United States, but it is particularly visible in Poland, especially when one looks at the activities of the producers of these products. For example, in June of each year Warsaw hosts the Global Forum on Nicotine – an international conference devoted to the popularisation of NDDs.

E-cigarettes appeared on the Polish market in 2008. Research conducted by the Main Sanitary Inspectorate in 2017 showed that about 3% of the adult population in Poland – almost one million Poles – claimed to have tried e-cigarettes, and 2% said they use them regularly. For some time, as in other countries around the world, the marketing activities of such devices have been inten-

sifying in Poland, especially accompanying the launch of new NDDs, for example 'heat-not-burn' products.

From the point of view of public health in Poland, conventional cigarettes are still the most important product on the Polish market, and the primary cause of the current burden of tobacco-related disease and mortality. These damages are increased by the high levels of ambient air pollution in Poland, which contributes to some of the same adverse health effects as tobacco smoking [8]. However, NDDs are ever more present on the Polish market and require constant monitoring and proper regulation, especially aimed at controlling their use by children and adolescents.

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This opinion has been prepared on the basis of a letter from the Ministry of Finance dated December 27, 2018, no. PA5.8190.84.2018. The letter is unfortunately not very precise. The Ministry of Finance indicates that its scope covers both innovative tobacco products and liquids for e-cigarettes. However, the invitation to the discussion concerns only innovative tobacco products. It is not clear if this is a mistake in the letter itself or if the consultation was supposed to be limited to only one category (from the legal point of view they are two separate types of products, subject to different rules). However, for the sake of comprehensiveness, both categories are included in the answer below.

The scope of consultations is also not clear. The letter indicates that the Ministry of Finance is interested in the

specificity of innovative tobacco products and not the rationality of the imposition of excise duties on them. However, for the same reasons as above, the assumption was made herein that the specificity of innovative products is one of the elements that determines the necessity and scope of covering these products with excise duties.

An excise duty has a dual function [9]. On the one hand it is of purely fiscal character (increasing state budget revenues), while on the other hand its social impact is also important. By raising the price of tobacco products (of which the excise tax is an important component), the state can influence the behaviour of consumers by performing its tasks within the scope of certain social policies (i.e. protection of public health). From the point of view of the first function, the maximisation of tax revenues is the most important, and therefore the introduction of excise duties on NDDs is a fully rational operation, although the issue that remains to be resolved is the extent of tax – it should be set at a level that allows maximisation of income.

From the point of view of achieving social goals an excise tax should in principle be related to the risk associated with a given product and the importance of a specific regulatory objective. This factor may lead to the excise duty being higher or lower than would result from a purely fiscal analysis. It is worth adding in this context that numerous studies clearly show that the price of a tobacco product is one of the most important elements taken into account by the majority of consumers when deciding to buy such a product [10, 11]. Consequently, an excise duty may be an important tool in reducing tobacco consumption.

NDDs have the same function as traditional tobacco products (they serve to deliver nicotine). In addition, innovative tobacco products are also similar to traditional tobacco products in physical terms (in both cases we are dealing with tobacco). What distinguishes them is the way the nicotine is delivered – in the case of conventional tobacco products this is done by inhaling the smoke that arises in the combustion process, whereas in the case of innovative tobacco products it is an aerosol produced in the process of heating specially prepared tobacco (some specialists believe that the more appropriate designation is 'smoke', not 'aerosol' [12]). This similarity does not exist in the case of e-cigarettes, where a special solution (not tobacco) that contains nicotine (and other chemicals) is heated. NDDs normally contain nicotine or its derivatives, albeit in different forms. Some e-cigarettes may be nicotine-free, but this part of the market remains very small.

NDDs can create their own risks at the macro level. Some researchers point out that these products may lead to the renormalisation of smoking (re-recognising smoking as a socially acceptable activity) and thus undermine the achievements of the anti-smoking policy implemented so far [13, 14]. In some countries, there has

also been an increased interest in these types of products on the part of adolescents [15] (note, however, that existing research in this regard concerns mainly e-cigarettes, and not innovative tobacco products). In Poland, the use of e-cigarettes among young people is at a particularly high level. According to the Global Youth Tobacco Survey (GYTS) from 2016, as many as 26.9% of children aged 13-15 years declared having used e-cigarettes in the previous 30 days, a higher percentage than the 20.5% of children of the same age, who declared having smoked conventional cigarettes [15]. In the United States, the use of e-cigarettes among youths at the level of 20.8% was already declared an 'epidemic' and led to a fierce reaction from the U.S. Food and Drug Administration [15]. Some local constituencies in the United States have also considered or taken specific regulatory actions. The most notable example is the sale ban on e-cigarettes recently introduced by San Francisco (the ban will become operative as of January 2020 [16, 17]).

There is a risk that some of these people will eventually switch to traditional tobacco products or will continue to use NDDs due to nicotine addiction, while in the baseline scenario some of these people would never use any nicotine products – be they traditional or innovative [18]. At the moment, however, we do not have enough data to fully assess both of these risks (and some scientists even question their existence [10]).

Considering the similarities between traditional and innovative tobacco products (and potential risks at the macro level), it seems that the inclusion of the latter within the scope of an excise duty is a rational solution. At the same time, the benefits for individual adult smokers resulting from the potentially lower harmfulness of these products can be taken into account when determining the tax rate.

A recent report by the World Health Organisation and U.S. National Cancer Institute has shown that an increase in the excise duty on nicotine products helps to reduce their use, and that children and adolescents are more sensitive to price changes in these products than adults [19]. In addition, the GYTS Poland research has shown that the probability of using e-cigarettes is twice as high among children and young people receiving the highest pocket money [15]. Thus, the data confirm the assumption that affordability is an important factor shaping the consumption of these products.

In this context it is worth adding that the two most important innovative tobacco products currently available in Poland are IQOS (a Philip Morris product) and Glo (a British American Tobacco product). Despite the lack of an excise duty on refills to these products (Marlboro Heets and Neo), their price is at a level similar to the price of traditional tobacco products (in this case cigarettes). This means that a disproportionately large part of the profits from the sale of these products goes to their producers, even taking into account the costs of

developing these products and placing them into the distribution network. Therefore, the inclusion of an excise duty on these products can be partially amortised by tobacco companies, thus allowing the implementation of both a fiscal and social goal.

Similar arguments can be made in the case of e-cigarettes. Therefore, the imposition of an excise tax on those products also seems to be a rational decision. Due to the relatively low price of these products (compared to traditional cigarettes), this should limit access to them for young people, especially taking into account that this age group is most sensitive to price changes. At the same time, the amount of excise duty should be related to the risk that this product creates for an individual user. This price should thus also be attractive enough to provide an incentive for smokers who cannot or will not quit smoking to switch to a less harmful product. Such a solution allows for meeting not only the fiscal goal but also the social goal in the area of public health protection.

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### **DISCLOSURE**

The authors report no conflict of interest.

# References

- Zatoński WA, Zatoński M, Janik-Koncewicz K, et al. Hundred years of cigarette smoking in Poland: three phases of the tobacco epidemic. J Health Inequal 2017; 3: 118-122.
- Zatoński M. State, society, and the politics of smoking in Poland, during and after communism (1960-2000). PhD thesis London School of Hygiene and Tropical Medicine, 2019. Available from: https://researchonline.lshtm.ac.uk/4653914/2/2019\_PHP\_ PhD\_Zatonski\_M\_images\_redacted.pdf (accessed: 25 May 2019).
- Hoffman SJ, Mammone J, Van Katwyk SR, et al. Cigarette consumption estimates for 71 countries from 1970 to 2015: systematic collection of comparable data to facilitate quasi-experimental evaluations of national and global tobacco control interventions. BMJ 2019; 365: l2231.
- Janik-Koncewicz K, Herbeć A, Zatoński M, et al. Building health literacy in a Polish region: protocol for the POWER project in Lower Silesia. J Health Inequal 2018; 4: 27-30.
- 5. Rada Ministrów. Program Ograniczania Zdrowotnych Następstw Palenia Tytoniu w Polsce. Cele i zadania na lata 2014-2018 [National Program for Limiting the Health Consequences of Smoking Tobacco in Poland. Objectives and tasks for 2014-2018], 2013. Available from: https://bit.ly/31MOzAJ (accessed: 18 March 2019).
- 6. Act of 9 November 1995 on the protection of health from the effects of the use of tobacco and tobacco products, consolidated text: Journal of Laws 2016, item 1331 as subsequently amended. Available from: http://prawo.sejm.gov.pl/isap.nsf/download.

- xsp/WDU19960100055/O/D19960055.pdf (accessed: 18 March 2019)
- Zatoński W and the HEM Project team. Closing the health gap in European Union. Cancer Center and Institute of Oncology, Warsaw 2008.
- Parascandola M. Ambient air pollution and lung cancer in Poland: Research findings and gaps. J Health Inequal 2018; 4: 3-8.
- 9. Dynysiuk Ł, Głuchowski J. Fiskalne i pozafiskalne aspekty podatku akcyzowego [Fiscal and non-fiscal aspects of an excise tax]. Krytyka Prawa 2016; 8: 22-39.
- 10. Yeh Ch-Y, Schafferer Ch, Lee J-M, et al. The effects of a rise in cigarette price on cigarette consumption, tobacco taxation revenues, and of smoking-related deaths in 28 EU countries – applying threshold regression modelling. BMC Public Health 2017; 17: 676.
- Hyland A, Bauer JE, Li Q, et al. Higher cigarette prices influence cigarette purchase patterns. Tob Control 2005; 14: 86-92.
- 12. Auer R, Cornuz J, Berthet A. Perplexing conclusions concerning heat-not-burn tobacco cigarettes reply. JAMA Intern Med 2017; 177: 1699-1700.
- Voigt K. Smoking norms and the regulation of E-cigarettes. Am J Public Health 2015; 105: 1967-1972.
- Fairchild AL, Bayer R, Colgrove J. The Renormalization of Smoking? E-cigarettes and the tobacco "Endgame". N Engl J Med 2014; 370: 293-295.
- Parascandola M, et al. Recent youth e-cigarette trends in the U.S. and Poland. J Health Ineqal [in preparation].
- Nedelman M. San Francisco major signs ban on e-cigarettes sales. CNN, 1 July 2019. Available from: https://edition. cnn.com/2019/07/01/health/san-francisco-mayor-ecigarette-ban-bn/index.html (accessed: 18 March 2019).
- 17. Satel S, Sandberg E. San Francisco, banning E-cigarettes is the worst solution to your least pressing problem. US Today, 26 June 2019. Available from: https://eu.usatoday.com/story/opinion/2019/06/26/san-francisco-shouldnt-ban-e-cigarettes-column/1551575001/ (accessed: 18 March 2019).
- 18. Zatoński WA, Aaro L, Samdal O, et al. Smoking- or nicotine-free generation, or both? What should be the public health priority? J Health Inequal 2016; 2: 105-108.
- 19. U.S. National Cancer Institute and World Health Organization. The Economics of Tobacco and Tobacco Control, National Cancer Institute Tobacco Control Monograph 21, NIH Publication No. 16-CA-8029A. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute; and Geneva, CH: World Health Organization, 2016. Available from: https://cancercontrol.cancer.gov/brp/tcrb/monographs/21/docs/m21\_complete.pdf (accessed: 18 March 2019).

# **AUTHOR'S CONTRIBUTIONS**

WZ conceptualised the article, LG conducted the analysis, all three authors contributed to writing the text.