Review Article

Tobacco control in Poland—successes and challenges

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Abstract: For many years, tobacco smoking was the major single avoidable cause of premature mortality in Poland. In the 1970s and 1980s, Poland was a country with an extremely high prevalence of smoking and lung cancer mortality among men in the world. By 1990, over 40% of Polish men died prematurely from smoking-attributed diseases. However, the enforcement of comprehensive tobacco-control measures and programs based on the World Health Organization recommendations and the best practices from other countries, contributed to a spectacular decrease of smoking incidence, particularly in men. This led to dramatic decrease in lung cancer incidence and mortality, and to a substantial improvement in public health in Poland. This article reviews the achievements of tobacco-control in Poland over the past decades and points out current challenges in this field.

Keywords: Tobacco control; Poland; successes and challenges

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In the 20th century, tobacco smoking was the leading health burden and the major cause of death in the world. It is estimated that around 100 million people died from smoking-attributed diseases at that time (1). The epidemic of cigarette smoking in the past century was mostly continued in developed countries. Recent estimates show that currently 1.2 billion people use tobacco worldwide, mostly in developing countries. Based on current trends in tobacco exposure, 8 million people will die every year by 2030 from different forms of tobacco (2). Since the 1960s, smoking rates and its health consequences have gradually decreased in rich countries and have rapidly increased in developing countries, including the region of Central and Eastern Europe (3). Poland, being at the time part of the communist bloc, was among countries with particularly high tobacco consumption. In the mid-1970s and early 1980s, 65% to 75% of Polish men aged 20 to 60 smoked cigarettes every day (4). In consequence, Poland faced a catastrophically high level of premature mortality among young and middle-aged adults. By 1990, over 40% of Polish men died prematurely from smoking-attributed diseases (5). The health impact of smoking, including cancer, was particularly high in poor and uneducated groups of society (6). At that time, effective tobacco-control measures, such as increasing taxes on tobacco products, ban on tobacco advertising and promotion, health warnings on tobacco products and advertisements, as well as establishing "non-smoking" areas, were already well known in Europe and worldwide. However, Poland was one of the largest tobacco producers in Europe, and this state-run industry was a source of high revenues (7). Hence, in view of the difficult economic situation of the country, the government did not undertake any real tobacco-control legislative measures, and sparse tobacco-control regulations were ineffective because of a lack of their enforcement.

After the fall of the communist system [1989-1990] and the introduction of a market economy, the tobacco industry in Poland was extensively privatized and in over 90% of cases became the property of multinational corporations. In view of the dramatic decline in the prevalence of smoking in North America, Poland, along with other Eastern European countries, became a fertile field for future growth and a strategic target of the international tobacco companies. In 1990, it was planned to increase cigarette sale in Poland by 10-20% by 2000 (8). In the first half of 1990, new attractive

cigarette brands became easily available and were relatively cheap due to government concessions to multinational companies by keeping tobacco taxes low for several years. Tobacco companies introduced aggressive advertising of their products in the private media, especially on billboards and in the press (television advertising was already banned at that time). In consequence, smoking rates increased steadily, particularly among children and adolescents. According to data of the World Health Organization (WHO) and the Polish Central Statistical Office, Poland reached an average cigarette consumption of over 3,600 cigarettes per adult person per year, thus zooming from 11th place in 1972 to the first in the world in 1992 (9). Heavy smoking was taking a deadly toll in high rates of lung cancer and cardiovascular diseases. The estimated number of deaths in Poland caused by tobacco smoking in 2000 reached approximately 69,000, of which 43,000 occurred prematurely i.e., between the ages of 35-69 (5). Around 43% of all deaths in males aged 35-69 were caused by smoking; middle aged adult smokers lost nearly 22 years of life and smokers aged 70 and older lost an average of 8 years of life (5). Lung cancer killed half of all Polish men who died before reaching 65 (6).

Fortunately, democratic changes in the 1980s resulted in a more open society and a movement towards the rapid development of civil society. This led to the creation of health-focused non-government organizations (NGOs), such as the Health Promotion Foundation and the Polish Anti-Tobacco Society, which emphasized the devastating effects of smoking and the need for comprehensive tobacco-control legislation. These organizations, supported by health professionals, the free media, and local communities, were very instrumental in large-scale counter-tobacco promotion and educational activities. Examples of such nationwide actions included an annual campaign entitled "Let's Stop Smoking Together" that has been based on the Great American Smoke-Out and aimed at convincing as many smokers as possible to make a serious attempt to quit smoking. This population-based smoking cessation program included social and media campaigns, professional and community-based support for smokers, and a competition that motivated smokers to quit smoking and, as an award, to take part in a one-week trip to Rome, including a private audience with Pope John Paul II (8,10). Between 1992 and 2006, almost half a million Polish smokers took part in the contest. Nation-wide surveys estimated that over 4 million smokers decided to give up smoking between 1992 to 2008 as a result of the Great Smoke-Out campaign (11).

Medical doctors and health institutes were particularly active in building capacity for tobacco-control in Poland. The first smoking cessation clinics were established in the 1980s. The Polish Quitline, that was based on the best practices taken from the UK Quit® and Norwegian Quitline, was established in 1996 and was first in Central and Eastern Europe. In 2002, the Supreme Medical Council announced the "Declaration on Counteracting Nicotine Dependence" calling for the intensification of tobacco-control activities in the Polish medical community by creating health-conscious attitudes and rising health awareness in society (12). A few years later, several medical associations signed the Consensus on the Diagnostics and Treatment of Tobacco Dependence—a key guideline on smoking cessation addressed to all health professionals in Poland (13). In the meantime, separate guidelines have been published by general practitioners, cardiologists, oncologists and chest physicians, and over 10,000 physicians and nurses have been trained in methods of smoking cessation. Polish medical and scientific societies in cooperation with the WHO, the International Union Against Cancer (UICC), the American Cancer Society (ACS) and other international organizations and institutions launched several scientific studies on tobacco control in Poland and organized a series of large workshops and scientific conferences on tobacco and health. All these activities raised public awareness of tobacco-related dangers and proved to be truly effective. It has been estimated that the number of daily smokers diminished from 14 million in 1982 to 9 million in 2010 (11).

The most successful tobacco-control activity undertaken in the past 25 years in Poland, however, was the enforcement of comprehensive legislative measures in this field (8). In November 1990, very soon after democracy came to Poland, a working group at the Institute of Oncology in Warsaw invited the WHO, UICC, ACS, public health leaders and tobacco-control advocates from Western and Eastern Europe to Kazimierz in Poland in order to discuss and prepare a long-term strategy for "A New Tobacco Free Europe". The Kazimierz Declaration was a milestone for the enforcement of tobacco-control legislation in Central and Eastern Europe including Poland, and one of the few public health resolutions that have been fully implemented. A few years later, the same group of Polish tobacco-control advocates developed policy recommendations and prepared a draft of a tobacco control bill in Poland. The bill, based on the WHO gold standard, included a comprehensive set of provisions for reducing the tobacco epidemic in Poland. This initiative faced a furious counteraction from the powerful and well organized tobacco lobbies, who questioned the impact of

an advertising ban, health warnings, economic regulations and public health education. They also emphasized the right to free advertising and the potential adverse impact on the Polish economy. Meanwhile, however, Polish public attitudes on this matter have turned to smoke-free solutions, and political parties took notice. The members of the Sejm (the lower house of the Polish Parliament), including around 40 medical doctors, were encouraged to vote for the Tobacco-Control Bill. As a result, in November 1995, the Polish Parliament with an overwhelming majority from all political parties, passed new tobacco-control legislation, the toughest in any of the former communist countries of Eastern Europe. Its main provisions and subsequent amendments in 1999 and 2002 included:

- A ban on smoking and the sale of cigarettes in health care centers, schools and enclosed workplaces;
- A ban on the sale of tobacco to minors (under 18) and by vending machines;
- A ban on electronic media advertising, including radio and television (in 1999 extended to all media);
- A ban of tobacco promotion and sponsorship;
- 30% textual health warnings on cigarette packs (one of the largest in the world at that time);
- Free provision of treatment for smoking dependence;
- The gradual reduction of tar, nicotine and carbon monoxide according to the European Union (EU) standards;
- Developing the government program aimed at reducing health and socio-economic consequences of smoking in Poland;
- Establishing a tobacco-control fund comprising of a levy of 0.5% from the excise tobacco tax for the abovementioned program (however, actual funds transferred annually for tobacco-control were substantially lower).

Furious attempts by the tobacco lobby to block the new legislation, in particular to thwart the introduction of the ban on tobacco advertising and promotion and the placement of large health warnings on cigarette packs, failed (8). These regulations made Poland a country with a most favorable climate for tobacco-control and a model for other countries. The WHO welcomed it as "an example for the rest of the world" (14) and the World Bank praised it as a "courageous" move (15). This Polish legislation became the best practice for new members of the EU, and the provision on large health warnings on cigarette packs were proposed to be enacted by the European Parliament for all EU countries.

The next challenge for tobacco-control in Poland was to reduce exposure to tobacco smoke in public places and worksites. This issue was addressed in the Framework Convention on Tobacco Control (FCTC) developed in 2003 by WHO and ratified by Poland in 2006 (16). The FCTC (Poland was one of its initiators) was the first convention of the United Nations regarding public health. This document became a guidepost for global, regional, and national health policies and was ratified by the European Parliament in 2005. In 2007, the European Commission developed a strategy for reducing smoking in public places and workplaces (17) and, in 2009, the European Parliament issued a respective resolution. By that time, the ban on smoking in public places had already been introduced in some EU countries (for example, Ireland and England) and in Norway. Yet, the road to smoke-free Poland was again winding. The first draft of the legislation that banned smoking in public places was developed again by the medical community and first presented publicly in April 2006. A few months later, the new legislation was formally submitted to the Parliament as a project of the Parliamentary Health Commission. As expected, this sparked a vivid debate within the country, heated by the tobacco lobby. This time it was argued that the legislation was too strict and would limit civic freedom. Tobacco lobbyists and some parliamentarians warned that the new regulations would lower revenues from tobacco taxes, and cause bankruptcies and the scrapping of jobs on a large scale, especially in hospitality industry. Despite this, a Polish Radio survey conducted in 2006 showed that 77% of Poles supported the complete ban on smoking in all public places, and similar results were obtained in subsequent surveys performed in 2007 and 2008. Finally, after numerous discussions and modifications, the ban and other tobacco-control measures were enacted in April 2010 and came into effect six months later. With that, Poland joined ten other Europeans countries which enforced by that time a smoke-free policy in their countries. The new legislation foresaw a smoking ban in all workplaces, hospitals and other outpatient clinics and premises for patients, all educational premises, all means of public transport, bars and restaurants, public cultural and leisure venues, bus, tram, and train stops and children's playgrounds. However, according to the obtained political compromise, owners of venues in the hospitality sector, retirement homes, airports and universities might build (but were not obliged) special tightly sealed and ventilated smoking rooms. These regulations contributed to substantial changes in smoking behaviors and exposure to tobacco smoke in Poland. In a public survey conducted by the Cancer Center and Institute in Warsaw, in collaboration

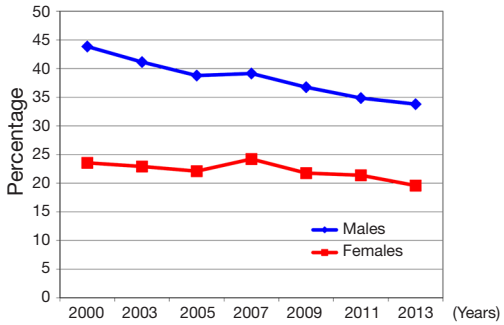

Figure 1 Percentage of daily smokers in Poland by gender, 2000-2013. Source: Polish nation-wide survey "Social Diagnosis 2013".

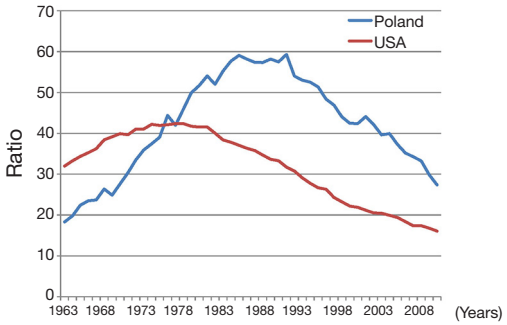

Figure 2 Standardized lung cancer mortality (ratio/100,000) in Poland and USA, men aged 35-54, 1963-2010. Source: WHO health database.

with TNS Poland one year after enacting the ban, over 1 million Polish smokers had made a serious attempt to quit smoking or had quit smoking for good. Results of nation-wide surveys, conducted by the Chief Sanitary Inspectorate and TNS Poland in 2009 and 2013, showed that exposure of smokers to tobacco smoke in workplaces dropped from 41% to 8% and that of non-smokers from 19% to 6%. Additionally, Poles declared a substantial decline in smoking tobacco in the presence of children (from 53% to 23%), pregnant women (25% to 11%) and non-smokers (83% to 54%). Surveys conducted before and after the enforcement of the ban on smoking in public places and worksites also showed an increase in public support for smoke-free policies, especially in bars and restaurants.

Besides the enforcement of smoke-free policies in Poland, new tobacco-control regulations included a gradual increase of tobacco excise taxes. Since the beginning of the 1990s, excise tax for cigarettes sold in Poland has increased over four times and now constitutes around two-thirds of the weighted average price, following the EU's excise tax rules. This led to a substantial increase in tobacco prices in Poland, especially for manufactured cigarettes (18). However, cigarette prices are still low when compared to other EU countries, especially in Western Europe. Additionally, Poland's rapidly growing economy has resulted in higher affordability of tobacco products.. Hence, increases in excise duties and prices of cigarette and other tobacco products should be steadily continued.

Lasting for over two decades, legislative and other efforts to combat tobacco in Poland has paid off. According to the year books of the Central Statistical Office of Poland, the number of sold cigarettes in Poland decreased from 101 billion per year in 1995 to 47 billion in 2013. Between 1980 and 2013, the proportion of smokers among men dropped from 65% to 28% and among women from 32% to 18%. If this trend continues, the consumption of cigarettes per capita in Poland in 2040 will fall to the level of the 1920s (*Figure 1*). Changes in cigarette consumption and smoking behavior have contributed to a substantial improvement in the health of the Polish population. According to the National Cancer Register, age-standardized mortality rates per 100,000 from lung cancer in men declined from 71.1 in 1990 to 56.2 in 2010. The patterns of changes in lung cancer mortality among Polish men became similar to those observed two decades earlier in the Unites States (*Figure 2*). Between 1991 and 2005, the death rate from coronary heart disease halved in Poland, and 15% of this decrease in men was attributable to reduced smoking (19).

However, considerable progress in tobacco-control in Poland has been facing challenges. In the years 2003-2012, tobacco production in Poland increased by 90%, of which around two-thirds is now exported. This places Poland third in Europe, after Germany and the Netherlands in tobacco production and sale. In consequence, Poland ceased to support EU policy restricting smoking, and does not implement consecutive FCTC regulations, such as pictorial health warnings on tobacco packs. Recently, Poland also appealed against the EU ban on flavored tobacco products. A worrying phenomenon is the persistently high proportion of smoking women. In the 35-44 age bracket, there is almost a gender parity between smokers (34% of women and 32% of men) (11). Although a similar trend has been reported elsewhere, Poland is among the countries with a particularly high prevalence of smoking women (20). In consequence, whilst the mortality rates from lung cancer among men are rapidly decreasing, they are still on the rise among women (*Figure 3*). The levels of premature mortality of young and middle-aged adults remain above those in Western Europe (21). The percentage of smokers is particularly

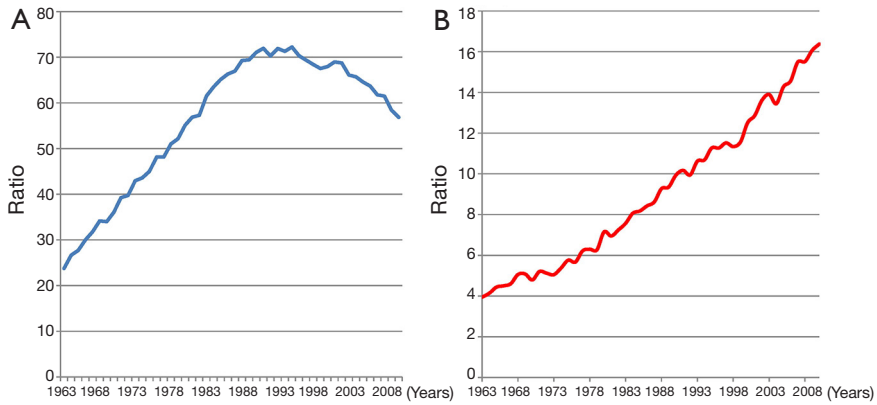

Figure 3 Mortality from lung cancer in Poland 1963-2010 (standardized mortality ratio/100,000), men (A) and women (B), age 0+. Source: Polish National Cancer Registry; Cancer Center and Institute, Warsaw.

high among less educated and unemployed Poles, reaching even 50% in men. While smoking traditional cigarettes is decreasing, there is a rise (including children) in the use of much cheaper, manually rolled cigarettes, water pipes (shisha) and electronic cigarettes (22,23).

There is certainly still room for improvement in tobacco-control in Poland (24). The government should consistently continue a tobacco-control policy according to the FCTC regulations and the 2012 EU directive (25). In the coming years, the following tobacco-control measures should be enforced in Poland:

- Raising awareness of tobacco smoking dangers through the continuous nationwide education of children and adolescents, teachers and educators;
- The introduction of large pictorial health warnings on all tobacco packs and information on the harmfulness of toxic substances in cigarettes;
- The introduction of plain cigarette packages;
- The placement of the Quitline number on all tobacco packs;
- A complete ban of tobacco advertisement in points of sale and in Internet;
- A complete ban of smoking in all public facilities;
- A ban on the sale of aromatic (e.g., menthol) and 'slim' cigarettes
- A ban on the sale of smokeless tobacco, including nasal snuff, electronic cigarettes and herbal smoking products;
- Stricter regulation for roll-ups prepared from loose tobacco and smuggled tobacco products.

The recently developed "Strategy for Cancer Control in Poland 2015-2024" (available at http://www.walkazrakiem.pl/) includes several long-term intervention measures to reduce the incidence and impact of recognized cancer risk factors, including tobacco smoking and passive exposure to tobacco smoke. This would vastly be facilitated by continued cooperation in this field between government institutions and NGOs. Finally, government programs to limit health and socio-economic consequences of smoking tobacco should receive adequate financial support. If all abovementioned tobacco control measures are successfully enforced, Poland will join again a group of leading countries in tobacco-control, and substantially improve its indicators in public health.

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References

1. Jha P. Avoidable global cancer deaths and total deaths from smoking. Nat Rev Cancer 2009;9:655-64.
2. World Health Organization. WHO Report on the Global Tobacco Epidemic, 2008 The MPOWER package. World Health Organization, Geneva, 2008.
3. Jha P, Chaloupka FJ. The economics of global tobacco control. BMJ 2000;321:358-61.
4. Zatoński W, Przewoźniak K. eds. The Health Consequences of Tobacco Smoking in Poland. Ariel, Warsaw, 1992.
5. Peto R, Lopez AD, Boreham J, et al. Mortality from smoking in developed countries 1950-2010. 2nd edition. Oxford University, Oxford, 2012.

6. Zatoński W, Becker N. Atlas of Cancer Mortality in Poland 1975-1979. Springer-Verlag, Berlin, 1988.
7. Zatoński W, Harville E. Tobacco control in Poland. Eurohealth 2000;6:13-5.
8. Zatoński W. Democracy and Health: Tobacco Control in Poland. In: de Beyer J, Brigden LW. eds. Tobacco Control Policy: Strategies, Successes and Setbacks. The World Bank and the International Development Research Center, Washington, 2003:97-120.
9. World Health Organization. The Current Status of the Tobacco Epidemic in Poland. WHO Regional Office for Europe, Copenhagen, 2009.
10. Jaworski J, Linke D, Przewozniak K, et al. Prevention of tobacco-related diseases – national health campaigns. In: Zatonski W, Przewozniak K. eds. Tobacco-smoking in Poland: attitudes, health consequences and prevention. Part III, Chapter 1. Cancer Center and Institute, Warsaw, 1999:275-88.
11. Ministry of Health of Poland: Global Adult Tobacco Survey. Poland 2009–2010. Warsaw: Ministry of Health, 2010. Available online: http://www.who.int/tobacco/surveillance/en_tfi_gats_poland_report_2010.pdf
12. Radziwiłł K. Jak pomóc palącemu pacjentowi? Gazeta Lek 2002;11:20-1.
13. Zatonski W. eds. Consensus on the diagnostics and treatment of tobacco dependence. Update 2008. Gazeta Lek 2008;12:1-16.
14. Blanke DD, de Costa e Silva V. Tools for advancing tobacco control in the 21st century. Tobacco control legislation: An introductory guide. World Health Organization, Geneva, 2004.
15. World Bank. Development in practice. Curbing the epidemic. Governments and the economics of tobacco control. World Bank, Washington, 1999.
16. World Health Organization. The Framework Convention on Tobacco Control. World Health Organization, Geneva, 2003.
17. European Commission. Green Paper. Towards a Europe free from tobacco smoke: policy options at EU levels. COM (2007) 27 final. Directorate-General Health and Consumer Protection, Brussels, 2007.
18. Czart-Ciecierski C, Cherukupalli R, Weresa MA. The Economics of Tobacco and Tobacco Taxation in Poland. International Union Against Tuberculosis and Lung Disease, Paris, 2011.
19. Bandosz P, O'Flaherty M, Drygas W, et al. Decline in mortality from coronary heart disease in Poland after socioeconomic transformation: modelling study. BMJ 2012;344:d8136.
20. Giovino GA, Mirza SA, Samet JM, et al. Tobacco use in 3 billion individuals from 16 countries: an analysis of nationally representative cross-sectional household surveys. Lancet 2012;380:668-79.
21. Zatonski WA, Bhala N. Changing trends of diseases in Eastern Europe: closing the gap. Public Health 2012;126:248-52.
22. Centers for Disease Control and Prevention. Global Youth Tobacco Surveillance, 2000-2007. Surveillance Summaries, January 25, 2008. MMWR 2008;57(No. SS-1).
23. GTSS Collaborative Group. A cross country comparison of exposure to secondhand smoke among youth. Tob Control 2006;15 Suppl 2:ii4-19.
24. Zatoński W, Zatoński M, Przewoźniak K. Health improvement in Poland is contingent on continued extensive tobacco control measures. Ann Agric Environ Med 2013;20:405-11.
25. European Commission. Proposal for a Directive of the European Parliament and of the Council on the approximation of the laws, regulations and administrative provisions of the Member States concerning the manufacture, presentation and sale of tobacco and related products. COM (2012) 788 final. European Commission, Brussels, 19 December 2012.

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