

SELECTED ASPECTS OF TOBACCO CONTROL IN BULGARIA: POLICY REVIEW

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SUMMARY

This paper seeks to outline the challenges of tobacco consumption control in the transitional economy of Bulgaria. It focuses on issues of taxation, high unemployment, and smuggling while attempting to meet European Union (EU) requirements for tobacco control legislation that reduces smoking consumption. The issue of tobacco control is not a simple one and requires a multi-pronged approach. While Bulgaria has made some progress in adopting legislation, it needs to strengthen its efforts in terms of enforcement, stronger legislation and increased taxation of cigarettes.

Key words: smoking, tobacco control, Bulgaria, public health, economics, tobacco policy

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INTRODUCTION

Tobacco Control Legislation

Tobacco control legislation has gained prominence at the European Union (EU) level and the rest of the world due to the serious health impact of smoking. It is well known that smoking harms nearly every organ of the body, causing many diseases, and reduces quality of life and life expectancy. The highest recorded level of smoking was among men and was first recorded in 1948 when surveys started. At that time, 82% of men were smoking (1). It has been estimated that between 1950 and 2000, 60 million people worldwide have died from tobacco-related diseases (2). It is further estimated that by 2030 the worldwide death toll due to smoking will be around ten million annually (3).

The concern about smoking has been heightened as evidence mounts about the cost of smoking and the effects of second-hand smoke. Tobacco is the single largest cause of avoidable death; it accounts for over half a million deaths each year in the EU (4).

A “smoke-free Europe” is one of the priorities of the European Commission’s public health, environment, employment and research policy. Substantial steps have already been taken to promote a smoke-free environment in the EU. Progress has been achieved due to legislative efforts and diligent health promotion efforts. In the early nineties, a number of EU health and safety at work directives defined certain restrictions on smoking at work. These were complemented by the Recommendation on Smoking Prevention of 2002 which called on Member States to provide protection from exposure to environmental tobacco in indoor workplaces, enclosed public places, and public transport (5).

National legislation differs widely across Member States. Italy, Malta, Sweden and parts of the United Kingdom have been cited as having excellent examples of effective measures to protect their citizens from the harmful effects of smoking. Other countries are less stringent in their legislation to restrict tobacco use. At present

there is, however, a clear trend towards smoke-free environments throughout the EU Member States driven by legal requirements and public support at the EU level. For example, many Member States have regulations banning or restricting smoking in major public places, such as health care, educational and government facilities, and public transport.

In order to become part of the EU, a country is legally obligated to comply with and implement certain legal acts. Tobacco control legislation at the EU level consists of legally binding directives and non-binding resolutions and recommendations regarding tobacco control (6). Since 1991, Bulgaria has been a parliamentary democracy, and since January 2007, the country has been a member of the European Union. As such, the Bulgarian regulatory framework has been enacted somewhat exogenously by the process of joining the EU. Efforts to reduce tobacco consumption are not straightforward in a country with both an evolving economy and a change in the political system. The goal of this paper is to explore the pros and cons of tobacco taxation in the transitional economy of Bulgaria.

RESULTS AND DISCUSSION

Smoking Prevalence in Bulgaria

Tobacco has been grown, consumed, and exported in Bulgaria for centuries. It is believed that the tobacco culture was brought to the Balkan Peninsula by Italian merchants probably at the end of the nineteenth century. Tobacco production has been developed on a broad industrial base since the turn of the twentieth century. At the beginning, only oriental varieties were cultivated in Bulgaria. Later, in accordance with world trends, the cultivation of light tobacco brands (Virginian and Burley) was added. The traditional oriental brand, however, remains the dominant share produced. During the last hundred years, the habit of

cigarette smoking was highly prevalent, socially acceptable and considered a sign of adulthood. Data available from the Bulgarian National Statistical Institute taken from the European Health Survey 2008 found that 40.5% of males and 18.9% of females are daily smokers. The very vulnerable age group between 15 and 24 years old showed that 27.7% of males and 17.9% of females are daily smokers (7). For comparison, an estimated 19.8% of U.S. adults were current smokers in 2007 (8). The prevalence of current tobacco smoking is an important predictor of the future burden of tobacco-related diseases. World Health Statistics 2010 reported that the prevalence of smoking any tobacco product among adults aged 15 years or older in 2006 was 49% for males and 38% for females. This compares with 21.5% prevalence for males and 16.6% prevalence for females for the European region in general (9). There is a wide variation in smoking prevalence among EU 27 members. The proportion of those aged 15 years and over who smoke in the EU-27 ranges from 16% in Sweden to 38% in Greece. The most recent comparable data for Bulgaria is for 2001 and indicates that 32.7% of those aged 15 years and over smoke (10). Bulgaria ranks second only to Greece as the European country with the highest percentage of smokers (11). According to expert estimation, smoking causes directly or indirectly some 20% of all Bulgarian deaths (12).

Anti-smoking regulations can be classified into two main groups: price or tax-based policies and non-price measures. The non-price policies encompass a whole range of policies including geographic restrictions, tobacco advertising bans, sales limitations, packaging mandates, and health warnings about tobacco consumption. Table 1 and 2 summarize the current legislation on tobacco products currently in place in Bulgaria. Pricing policies to reduce tobacco consumption are essentially tax-based policies. This paper focuses primarily on the complexities of using tax-based policies to reduce consumption in Bulgaria.

Pricing Policies to Control Tobacco Consumption

The ability of governments to influence tobacco use via higher price depends on the price elasticity of demand. Relatively low price elasticity signifies a small demand and thus the inability of higher taxes to reduce cigarette consumption. One of the most effective means of reducing tobacco consumption is by taxation. With respect to young people, tax increases are the most effective intervention to persuade people to quit or not to start smoking (13). Young people and others with low income tend to be highly sensitive to price increases. Because price is an especially powerful determinant of smoking initiation in youth, it significantly moderates long-term trends in cigarette consumption. In the US, a 10% increase in the price of cigarettes can lead to a 4% reduction in the demand for cigarettes. This reduction is the result of people smoking fewer cigarettes or quitting altogether (14). Although there is no available data on the impact of pricing policies on cigarette consumption in Bulgaria, experience from another Eastern European country Hungary found that regular tobacco tax increases resulted in decreased cigarette consumption and lower prevalence figures in some population groups (15). Raising taxes on tobacco products is considered a highly effective component of a comprehensive tobacco control strategy.

Cigarette tax is composed of excise tax, ad valorem tax (levied as a percentage of price) and value added tax (transaction

tax). According to data from the World Health Organization, the structure of taxation for tobacco products (%) 2005 for Bulgaria is as follows:

Specific excise	15.93
Ad valorem excise	31.8
Total excise	16.67

In EU countries, total taxes often exceed 75% when value-added tax (VAT) is included (16).

Bulgaria lags behind other European areas in its use of a taxing strategy to combat smoking. The reasons are multiple and complex. In general, governments often hesitate to act decisively when adopting tobacco tax increases for fear that the economy may be harmed through a loss of jobs and income from growing, manufacturing, exporting, and selling tobacco. The direct or indirect pro-smoking lobbying efforts also mitigate efforts to raise cigarette taxes. This is the case in Bulgaria.

The major tobacco company in Bulgaria is state-owned Bulgartabac. Bulgartabac enjoys a dominant position as a Bulgarian taxation regime has helped to create a monopoly at the expense of the other major players. Many transnational tobacco companies have expressed an interest in the thus far failed privatization of Bulgartabac. Bulgartabac is a major regional cigarette producer with large export markets in Eastern Europe. Its flagship brand Victory is the most recognized and best-selling cigarette in Bulgaria.

Table 3 shows the price of a pack of cigarettes in Bulgaria for the most popular foreign and local brands (2010).

By comparison, the price of a pack of Marlboro cigarettes in New York State is approximately \$ 9.00 (6.8 €) and in France is \$ 9.22 (7.0 €). The price of a pack of Victory, the most popular domestic cigarettes in Bulgaria is 4.60 BGN compared to a kilogram of apples 1.10 BGN, one loaf of white bread 1 BGN, 10 eggs 1.70 BGN, a ½ liter bottle of local beer (Zagorcka) 0.66 BGN, a movie ticket 4.0 BGN, a routine veterinary visit 15 BGN. Another common measure of purchasing power parity is the cost in minutes of labour of a pack of the most popular cigarette brand. Unfortunately, no data is available for Bulgaria for this parameter. These numbers show that cigarettes are relatively affordable, particularly given the availability of smuggled cigarettes which can be bought even more cheaply.

Smuggling

Corruption and organized crime are linked to cigarette smuggling and are admittedly widespread in Bulgaria. The smuggling of goods is an important source of income for various groups ranging from political leaders and government officials to people living in border areas. Cigarettes represent perhaps the most popular item for smuggling due to their specific features (small size, high price, very large consumption, and high import tax rates). Cigarette smuggling is also more profitable and less risky than drug smuggling. The illicit trade volume of cigarettes sold in Bulgaria increased significantly over the course of 2009. According to the Euromonitor, the main reason is the growing prices of legally taxed cigarettes and the relatively low income of Bulgarian consumers (17). The effectiveness of tax policies is undermined because of availability of smuggled or counterfeit tobacco products on the market which are of course not taxed and therefore cheaper. In fact, tobacco companies assert that increased

Table 1. Legislation on advertising and distribution of tobacco products

Description	Ban	Partial restriction	No restriction
Direct advertising of tobacco products			
National TV	X		
Cable TV	X		
National radio	X		
Local magazines, newspapers	X		
International magazines, newspapers			X
Billboards, outdoor walls	X		
Points of sale, kiosks		X	
Cinemas	X		
Indirect Advertising of tobacco products			
Product placement - TV and films	X		
Sponsored events with tobacco brand name	X		
Non-tobacco products with tobacco brand names	X		
Non-tobacco product brand name used for tobacco	X		
Direct mail giveaways	X		
Promotional discounts	X		
Distribution of tobacco products through various outlets			
Vending machines			X
Self-service displays			X
Mail order or electronic sales			X
Sale of single or unpacked cigarettes	X		
Sale of duty free tobacco products	X		
Free samples of cigarettes	X		
Smoke-free areas			
Health care facilities	X		
Educational facilities	X		
Government facilities	X		
Restaurants		X	
Pubs and bars		X	
Indoor workplaces and offices	X		
Theatres and cinemas	X		
Smoke-free public transit			
Buses	X		
Taxis	X		
Trains		X	
Domestic air transport	X		
International air transport	X		
Domestic water transport			X
International water transport			X

taxation does not necessarily lead to decreased consumption and increased state revenues but to promotion of smuggling. Additionally, smuggling allows international brands to become affordable to low income consumers and to image conscious young people in developing countries. Recent experience in Bulgaria suggests that tax hikes while leading to a decrease in sales of legal

cigarettes has also led to an increase in black market cigarettes. One source estimates that up to 15% of the cigarette consumption comprises smuggled cigarettes (18). In Bulgaria, cigarettes are widely available on the black market. Indeed, a carton of black market cigarettes (10 packs) can be readily purchased for 10 BGN (approximately 5.12 €) less per carton than regularly

Table 2. Legislation on health warnings, ingredients/constituents, number of cigarettes per pack and minimum age for buying tobacco

Description	Required/regulated	Not required/regulated	No data available	Comments
Minimum age for buying tobacco products	X			18 years
Health warnings on tobacco products	X			Size of warning 4%
Placing of the message	X			
Colour, contrast, font size	X			
Area to cover	X			
Content	X			
Number of messages	X			
Language	X			
Pictorial warnings		X		
Measurement of				
Product ingredients	X			
Smoke constituents	X			
Content of				
Nicotine	X			
Tar	X			
Additives		X		
Carbon monoxide		X		
PH			X	
Disclosure of ingredient or constituent information				
To government	X			
On packages	X			
In advertisements				Not applicable
Minimum number of cigarettes per pack	X			20

Table 3. Prices per pack of cigarettes* in Bulgaria for the most popular foreign and local brands in 2010

Foreign brand	Price	Local brands	Price
Marlboro	5.50 BGN (2.82 €)	Victory	4.60 BGN (2.35 €)
Winston	4.70 BGN (2.41 €)	G&D	4.10 BGN (2.10 €)
Camel	4.50 BGN (2.30 €)	Melnik	4.00 BGN (2.05 €)

*20 cigarettes per pack. Prices include taxes

priced cigarettes. A single pack of smuggled Victory cigarettes costs 2.75 BGN on the black market. Smuggling in Bulgaria is a complex and multi-factorial issue. Goods that are smuggled are most often those that tend to undergo transformation or like alcohol and tobacco, are consumed. This makes the tracking of smuggled goods more difficult. Cigarettes are high import tax items which make them especially appealing for smugglers and consumers alike. Cigarette smuggling in Bulgaria often involves both locally produced cigarettes and major international brands such as Marlboro. Tobacco companies seem to have little incentive to reduce smuggling as lower priced cigarettes contribute to consumption. The common scheme for smuggling locally produced cigarettes usually involves “export” to a neighboring country, followed by illegal transport back into the country of origin.

Cigarette smuggling can prosper in a region where the borders are kept relatively porous for political reasons such as the border between Bulgaria and Greece, Macedonia, Serbia, and Romania. Visas are no longer required between Bulgaria, Macedonia, and Serbia. The end of visas has led to an increase in the so-called “suitcase trade” in cigarettes between these countries (19). The “suitcase trade” involves people crossing national frontiers on foot carrying suitcases and/or bags. Suitcase carriers reach the nearest market place in a neighboring country and sell their “goods”. Smuggling in Bulgaria is further facilitated by its 378 kilometer long coastline of the Black Sea which is difficult to patrol. Due to high import taxes and duty rates, smuggling cigarettes can be a profitable activity. In addition to smuggled cigarettes, the incidence of counterfeit cigarettes continues to diversify and

grow in Bulgaria. A recent rash of counterfeit “Victory White” cigarettes marked “For duty free sale only” has been intercepted in a number of cities in Bulgaria. These cigarettes contained low grade tobacco and excessive levels of nicotine.

Statistics of cigarette smuggling are difficult to locate as the topic does not easily lend itself to being a topic of academic scrutiny. The volume of cigarette smuggling in Bulgaria can be most accurately determined if the data from customs statistics are compared with the data from marketing research on the sales of imported cigarettes in the country. According to the latter, the annual cigarette market in the country can be estimated at 500–560 million BGN. Imported cigarettes represent 12–15% of all cigarettes sold (60–80 million BGN). Based on these estimates, experts calculated that in 1999, less than 10% of imported cigarettes sold in Bulgaria were legally imported (20). The head of Bulgartabac estimated that in 2008, smuggled cigarettes in Bulgaria account for 30–40% of the market (21). There are no officially published estimates for the proportion of cigarettes smuggled. To combat illicit trade, legislation needs to include measures such as requirements for package markings or creation of a system for conclusively tracking and monitoring products through the entire distribution chain. A specific intrastate task force and more stringent border control may be needed to address this problem. In 2011, Bulgarian customs officials made a significant step in reducing cigarette smuggling when over 9 million illegal cigarettes were confiscated at the port in Varna, Bulgaria. The origination of these cigarettes was Poti in Georgia.

Bulgaria is not alone in terms of its issues with cigarette smuggling. The United States also suffers from cigarette smuggling. Although reliable statistics are not available, a spokesman for the Federal Bureau of Alcohol, Firearms, Tobacco and Explosives notes that 8 years ago there were only 100 tobacco smuggling investigations in New York state, and now there are several hundred (22). Indeed, a study conducted by Lovenheim (2008) estimated that the proportion of consumers who smuggle is between 13% and 25% nationwide (23). Other scholars have advanced similar theses. A small sample of convenience in Bulgaria seems to indicate that the percentage is higher in Bulgaria.

Unemployment

From 1944 to 1989, Bulgaria was under communist rule. After the collapse of the communist regime, the country experienced a long and challenging transition period in the 1990’s with severe changes in the labour market. Under the previous socialist regime, unemployment was virtually non-existent due to pronounced job security. Bulgaria’s painful transition from a centrally planned economy to market-oriented capitalism has produced an economic and social upheaval. The transition to a market economy has resulted in a high unemployment rate, increasing inequality of incomes, and de-industrialization. Unemployment is a burning topic for the current center-right government, irrespective of the considerable differences in data about unemployment from various official sources. Tobacco growing has always provided employment in Bulgaria. The country brings in large profits from the tobacco industry. The main domestic product is oriental tobacco. Tobacco constitutes an important sector of agriculture and industry which contributes heavily to the national budget. In agricultural exports, Bulgaria is one the largest exporters of

tobacco in the region. The European Commission Directorate General Taxation and Customs Excise Duty tables note that the Bulgarian government received 1,764,01 BGN (901,94 €) (in millions) in revenue on consumption (excise duties and similar charges) of cigarettes in 2009 (24). As smoke-free policies motivate some smokers to give up smoking, there may be a loss of profit to the tobacco industry and, consequently, reductions in tobacco-related employment. Among EU members, Bulgaria is particularly vulnerable in this area with a relatively high unemployment rate of 9.1% and an average nominal monthly wage of 563 BGN (293 €) (25).

Taxation

Cigarette tax is a very important source of government revenue. State-owned Bulgartabac has a market share of more than 90% of the cigarettes sold legally on the market (26). Bulgarian state revenue is significantly enhanced by the contribution of tobacco taxes which were increased in 2009 and 2010 (27). Public health officials seem to be at odds with the sector that places an emphasis on the contribution of the tobacco industry to tax revenues and values the livelihood of people who make their living from growing or selling tobacco. The majority of tobacco that is produced in Bulgaria is produced by small family (lineal) farms concentrated in the Central, Southern and Southwestern part of Bulgaria (26) and 36,500 total hectares are devoted to tobacco production (27). Family farms receive state support and produce tobacco on a contract basis. There are eleven tobacco leaf processing firms and one cigarette factory in Bulgaria. The state holding Bulgartabac employs about 8,500 permanent workers and many seasonal workers. All of these producers contribute to the national employment rate in a country that is working hard to stimulate its economy. These factors contribute to the push-pull of health versus economy. Still, taxation remains a powerful tool, particularly in the young, to discourage smoking. Additional taxation with revenues earmarked specifically for public health efforts could be imposed.

CONCLUSIONS

Overall, progress on health reforms related to tobacco control in Bulgaria has been slow. The country has faced a push and pull between those who are concerned with governmental revenue and those whose primary mission is the health of the public. On May 21, 2009, the Bulgarian Parliament enacted a law making restaurants, bars, clubs, and cafes 100% smoke-free. Before the new law could go into effect, Members of Parliament delayed the full smoking ban citing economic concerns for unemployment and tourism. A positive development is that 1% of tobacco and excise duties were to be used to finance national programmes on tobacco, alcohol, and drugs from 2007 to 2010 (28). The health care system in Bulgaria is plagued with funding shortages, nationwide strikes by physicians, multiple personal changes at the Ministry of Health and a gross inequality of access. Reliable data on how this 1% was actually spent is not readily available. The issue of tobacco control in Bulgaria is not a simple one and requires a multi-pronged approach.

Bulgaria has theoretically accepted and embraced the modern concept of health promotion which intends to improve the level

of public health by tackling health determinants and not just preventing disease. A stronger effort aimed at the entire population is needed to encourage individuals to stop smoking. Ideally, action should include age and gender-based promotional and educational programmes. Treatment for smokers who would like to quit should be provided either at reduced cost or free of charge. Training in smoking cessation should be part of the basic curriculum for all health professionals. Even brief and simple advice from health professionals can lead to a substantial increase in smoking cessation rates. A primary focus of all primary health care providers (nurses, physicians, dentists, and pharmacists) should be efforts and education about smoking cessation.

The regulation about smoking in public places and the workplace should become more restrictive and there is the outstanding issue of effective enforcement of existing regulations. Current regulations should be enforced with very heavy penalties and litigation if necessary. Sanitation inspectors who oversee the implementation of the regulation should provide periodic automatic reports to the Minister of Health on what was found and the action taken. Specifically, smoking should be banned in all public places including restaurants, pubs, bars, and public transportation. Further, social marketing efforts should stress non smokers' rights to enjoy a smoke-free environment so that individuals will be less tolerant of public exposure to second hand smoke.

Additional efforts are needed with respect to the advertising of tobacco. It is suggested that legislation be enacted to ban advertising at point of sale, kiosks, and on billboards. Regarding promotion, sponsorship, and all forms of indirect advertising, the country would be wise to adopt a total ban on advertising.

In Bulgaria, smoking hazards are outlined in direct health warning labels on cigarette boxes. One side of the box says "Smokers die younger" and the other side says "Smoking hurts you and the people around you". Since 2004, it has been possible to accompany such warnings with a picture. Pictorial health warnings on the two main sides of tobacco products would serve to strengthen the health warning. Evidence from countries where pictorial warnings have already been introduced shows that images have a greater impact than text warnings alone (29). Renewing these pictures on a regular basis would enhance the health promotion message.

It is well known that cigarettes are addictive. The Institute of Medicine, a unit of the National Academy of Sciences, has called for a gradual reduction of the nicotine content of all cigarettes to non-addictive levels (30). While this is a worthy strategy and should be considered as an amendment to Bulgarian law, this would take years to eliminate addiction. A firmer strategy would be one that includes raising cigarette taxes, a complete ban of smoking in public places, enforcing the laws against selling tobacco to children, and offering free or inexpensive help to smokers trying to quit. Finally, an economic package that stimulates the economy and reduces the burden of unemployment will do much to close the gap between those who feel the need for tobacco revenues and those who place a higher value on individual human life. Recently, Bulgaria has taken much needed steps to facilitate business development. The country has expanded the highway infrastructure, attracted new industrialization such as Russian and Chinese vehicle manufacturers and the food giant Unilever, and begun to look at solar power ventures. Further business development outside of the tobacco interests will decrease the reliance

on this industry and reduce the need for tobacco tax revenues.

The country of Bulgaria has many natural assets and talented and committed professionals. The Bulgarian people, however, do not seem to expect much from their politicians and bureaucrats. The country seems to have suffered from being under the thumb of a "pause" button in many areas of development under socialism. Placing a high value on and preserving the health of its citizens is consonant with a forward moving EU member. Although this is a challenge for a young democratic government with high unemployment and a state budget that includes a large contribution from tobacco tax revenue, the long term societal cost of smoking vastly outweighs the short term gains.

REFERENCES

1. Wald N, Nicolaides-Bouman A. UK Smoking Statistics. 2nd ed. Oxford (UK): Oxford University Press; 1991.
2. Peto R, Lopez AD, Boreham J, Thun M, Heath C Jr. Mortality from tobacco in developed countries: indirect estimation from national vital statistics. *Lancet*. 1992 May 23;339(8804):1268-78.
3. Saffer H, Chaloupka F. The effect of tobacco advertising bans on tobacco consumption. *J Health Econ*. 2000 Nov;19(6):1117-37.
4. European Commission. 2008 Eurobarometer survey on tobacco [Internet]. Flash EB Series' 2008 [cited 2008 Nov 25] #253-Dec08. Available from: http://ec.europa.eu/health/archive/ph_determinants/life_style/tobacco/documents/eb_253_sum_en.pdf.
5. Commission of the European Communities. Green paper. Towards a Europe free from tobacco smoke: Policy options at EU level [Internet]. Brussels: Commission of the European Communities; 2007 [cited 2009 Feb 24]. Available from: http://ec.europa.eu/health/archive/ph_determinants/life_style/tobacco/documents/gp_smoke_en.pdf.
6. World Health Organization. Legislating smoke-free workplaces [Internet]. Copenhagen: WHO Regional Office for Europe; 2006 [cited 2008 Jul 30]. Available from: <http://www.smokefreeengland.co.uk/files/who-euro.pdf>.
7. European health interview survey & Health Examination Surveys Database [Internet]. Brussels: European Commission [cited 2011 Sep 16]. Available from: <https://hishes.iph.fgov.be>.
8. Center for Disease Control and Prevention. CDC online newsroom. Press release. Slightly lower adult smoking rates [Internet]. Atlanta: Center for Disease Control and Prevention; 2008 [cited 2011 Nov 25]. Available from: <http://www.cdc.gov/media/pressrel/2008/r081113.htm>.
9. World Health Organization. World Health statistics 2010 [Internet]. Geneva: WHO; 2010 [cited 2011 Nov 25]. Available from: http://www.who.int/whosis/whostat/EN_WHS10_Full.pdf.
10. EUPHIX: EU Public Health Information & Knowledge System. Smoking prevalence varies widely among EU-27 member states [Internet]. Bilthoven: EUPHIX [cited 2007 Jul 23]. Available from: http://www.euphix.org/object_document/o4748n27423.html.
11. Americans for nonsmokers' rights (ANR). Bulgarian [Internet]. Berkeley: ANR; 2011 [cited 2011 Nov 25]. Available from: <http://www.no-smoke.org/goingsmokefree.php?id=644>.
12. Highlights on health in Bulgaria [Internet]. Copenhagen: WHO Regional Office for Europe; 2001 [cited 2011 Nov 25]. Available from: http://ec.europa.eu/health/ph_projects/1999/monitoring/bulgaria_en.pdf.
13. Green LW. Taxes and the tobacco wars. *CMAJ*. 1997 Jan 15;156(2):205-6.
14. Centers for Disease Control and Prevention (CDC). Tobacco use - United States, 1900-1999. *MMWR Morb Mortal Wkly Rep*. 1999 Nov 5;48(43):986-93. Erratum in: *MMWR Morb Mortal Wkly Rep* 1999 Nov 12;48(44):1027.
15. Szilágyi T. Higher cigarette taxes - healthier people, wealthier state: the Hungarian experience. *Cent Eur J Public Health*. 2007 Sep;15(3):122-6.
16. World Health Organization. The European tobacco control report [Internet]. Copenhagen: Regional Office for Europe; 2007 [cited 2010 Dec 9]. Available from http://www.euro.who.int/__data/assets/pdf_file/0005/68117/E89842.pdf.
17. Euromonitor International's Tobacco in Bulgaria market report. Tobacco in Bulgaria [Internet]. London: Euromonitor International; 2011 [cited 2011 Nov 25]. Available from: http://www.euromonitor.com/Tobacco_in_Bulgaria.

18. Eastern Europe: EU expansion offers opportunities and challenges [Internet]. Tobacco China online; 2008 [cited 2010 Dec 12]. Available from <http://act.tobaccochina.net/englishnew/content1.aspx?id=36723>.
19. Tsoneva-Pentcheva L, Willmore I. Bulgaria: Conduit for Illicit Cigarette Trade between Asia and Europe. Framework Alliance Convention Bulletin. 2010;97:4.
20. Center for the Study of Democracy. Corruption, contraband and organized crime in Southeast Europe [Internet]. Sofia: Center for the Study of Democracy; 2003 [cited 2011 Nov 25]. Available from: <http://unpan1.un.org/intradoc/groups/public/documents/untc/unpan016997.pdf>.
21. Bakalov, I. Something fishy with cigarettes. Smuggling is more profitable than ever [Internet]. Impact Press Group; 2010 [cited 2010 Dec 22]. Available from: <http://e-vestnik.bg/9972/neshto-se-mati-s-tsigarite-ot-kontrabandata-se-pecheli-kakto-nikoga/>. (In Bulgarian.)
22. Medaglia A. Cigarettes are costly, but often less so in Chinatown. New York Times. 2007 Sep 18; sect.B:2 (col.0).
23. Lovenheim MF. How far to the border? The Extent of cross-border casual cigarette smuggling. Natl Tax J. 2008;61:7-33.
24. European Commission. Excise duty tables: part II energy products and electricity [Internet]. Ref.1033. Brussels: European Commission; 2010 [cited 2011 Nov 25]. Available from: http://ec.europa.eu/taxation_customs/resources/documents/taxation/excise_duties/energy_products/rates/excise_duties-part_ii_energy_products_en.pdf.
25. Bulgaria average salary up by 16.3% in first quarter of 2009. Business [Internet]. 2009 May 18 [cited 2011 Nov 25]. Available from http://www.novinite.com/view_news.php?id=103725.
26. Petkova R, Yildirak N. Employment trends in the tobacco sector: selected provinces of Bulgaria and Turkey. Working paper. Geneva: International Labour Office; 2003.
27. Balabanova A. IENICA Interactive European Network for Industrial Crops and Their Applications: report from the State of Bulgaria. Sofia: AgroBioInstitute; 2004.
28. Joossens L, Raw M. Progress in tobacco control in 30 European countries, 2005-2007. Swiss Cancer League. In: Proceedings of the 4th European Conference on Tobacco or Health; 2007 Oct 11-13; Basel, Switzerland.
29. Directive 2001/37/EC of the European Parliament and of the Council of 5 June 2001 on the approximation of the laws, regulations and administrative provisions of the Member States concerning the manufacture, presentation and sale of tobacco products. Official Journal of the European Communities. 2001;L 194/27.
30. Bonnie RJ, Stratton K, Wallace RB, editors. Ending the tobacco problem. Washington, DC: Institute of Medicine of the National Academies; 2007.

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