2010

Review of Smoking Prevention & Cessation Methodologies for Adolescents and their Families

Jagiellonian University Medical College, Krakow, Poland
Edited by BARBARA BIK
August 2010

Having spent so many hours translating documents connected with smoking, the facts have finally spoken to me and I decided to quit. After almost two months I am still proud of the decision. Hopefully, the efforts of all the people involved in the smoking cessation project will have the reason to be proud of their activity.

Paulina Zielinska-Bałaga
Translator

euFAQT PARTNERSHIP

MAIN PARTNER

PANIA KARNAKI, DINA ZOTA	Institute of Preventive Medicine, Environmental & Occupational Health, Prolepsis, Greece

ASSOCIATED PARTNERS

	Jagiellonian University Medical College, Krakow, Poland
BARBARA BIK	Polish Team Coordinator/Researcher
KATARZYNA GUBERNAT	Project Administrator
KRZYSZTOF KRAJEWSKI-SIUDA	Researcher
LUCYNA PRZEWOŹNIAK	Researcher
ELŻBIETA RYŚ	Assistant Researcher
EWA DOBROGOWSKA-SCHLEBUSCH	Assistant Researcher
DAMIAN JANUS	Project Assistant
JERZY ROSIŃSKI	External Expert
THEODOR HARATAU	Romtens Foundation, Romania
	INNOVAMED Medical and Educational Development Ltd. Hungary
CSAKY LILLA	Researcher
SZILVIA GERGELY-SEUSS	Assistant Researcher
PETER ŠŤASTNÝ, JANA POTÚČKOVÁ	Stop fajčeniu, o.z / Stop Smoking, Slovakia
PLAMEN MIHAILOV	Foundation “BULGARIA YOUTH PREVENTION”, Bulgaria

COLLABORATING PARTNERS

COSTAS CHRISTOPHI, MARTHA PAISI	Cyprus University of Technology, CII, Cyprus
ALEXANDRA KMETOVA	Charles University in Prague, Czech Republic
SEVAL AKGUN	Başkent University, Turkey

FOREWORDS

The report on literature review has been elaborated within the frame of euFAQT Project engaging 6 countries: Greece (project coordinator), Bulgaria, Hungary, Poland, Romania, Slovakia, and three cooperating countries - Cyprus, Czech and Turkey.
The Project realization is planned for the years 2010-2012: Agreement n° 2008 1221, Executive Agency for Heath and Consumers (EAHC). The main goal of the Project is promotion of healthier, smoke-free lifestyle for European youth and their families. The remaining Project goals are oriented at supplementing the European Union policy by creating a culture of cigarette smoking prevention among teenagers and their families - promoting benefits resulting from tobacco smoke-free environment, increasing adolescents' level of knowledge and skills in the scope of not undertaking smoking and methods of quitting smoking [www.euFAQT.eu].

This report has been created based on: English-language literature found in available databases and reports and publications at WHO and EU websites. The report also includes information from euFAQT Country Reports prepared by 6 countries taking part in the Project. They cover conclusions from the national and international range publications review, data from national statistical databases, websites and various reports.

The presented review refers to multidimensional issue of tobacco smoking by teenagers in European countries, the USA, Canada and Australia. Moreover, the aim of the review has been to learn about: the trends of tobacco smoking among teenagers - similarities and differences determined by gender and other conditionings connected with family influences, contemporary lifestyle and culture of youth and adults; presenting interventions / activities typology and their evaluation in the context of usefulness in prevention and quitting of smoking aimed at adolescents and their families; identification of activities/interventions which have turned out to be successful, those which have caused a change in habits in the direction of tobacco abstinence and facilitating of cigarette smoking cessation.

In the subsequent stages of the Project, based on the literature review, a comprehensive approach towards prevention and cessation of smoking will be developed, including the family oriented approach. Guidelines on educational-informational interventions to be implemented in partner and cooperating countries of the euFAQT Project will be developed.

The intended final result is popularisation of Project results among various environments and organisations, decision-makers and policy-makers in order to encourage other European countries – including especially the Mediterranean countries not taking part in the Project – to undertake actions aiming at reducing smoking and quitting smoking.

Barbara Bik
Polish Team Coordinator

Preparation of the report was carried out as a team. The structure of the report was discussed at regular meetings of the Polish Research Team starting from February 2010 till August 2010.

Scientific editor: **Barbara Bik**

Contributors: **Krzysztof Krajewski-Siuda, Lucyna Przewoźniak, Jerzy Rosiński**

Assistant editors: **Katarzyna Gubernat, Elżbieta Ryś, Ewa Dobrogowska-Schlebusch**

Translation: **Paulina Zielińska-Bałaga**

The various parts of the report have been prepared by the following authors:

INTRODUCTION **Barbara Bik**

Chapter I
Epidemiology of smoking among adolescents and some factors influencing tobacco use

1.1. European countries
Barbara Bik, Elżbieta Ryś

1.2. USA, Canada and Australia
Barbara Bik, Elżbieta Ryś

1.3. Prevalence of smoking in euFAQT countries by Country Reports

Bulgaria **Plamen Mihailov**

Greece **Pania Karnaki, Athena Linos, Dina Zota**

Hungary **Lilla Csaky, Karoly Bako**

Poland **Lucyna Przewoźniak, Elżbieta Ryś, Barbara Bik**

Romania **Theodor Haratau, Eugenia Bratu**

Slovakia **Peter Šťastný, Jana Potúčková**

)

Chapter II
Determinants of tobacco use among adolescents
Damian Janus, Pania Karnaki

Chapter III
Smoke-free legislation
Katarzyna Gubernat

Chapter IV
Anti-smoking interventions among youth
Damian Janus

CONTENTS

INTRODUCTION 7

CHAPTER I

Epidemiology of smoking among adolescents and some factors influencing tobacco use 27

1.1 European countries 29
1.2 USA, Canada and Australia 53
1.3 Prevalence of smoking in euFAQT countries by Country Reports 84

CHAPTER II

Determinants of tobacco use among adolescents 105

2.1 Stages in the development of adolescent smoking 106
2.2 Theories of smoking acquisition among adolescents 108
2.3 Environmental influences on tobacco smoking among young people 110
2.4 Individual factors 117

CHAPTER III

Smoke-free legislation 122

3.1 WHO Framework Convention Tobacco Control 124
3.2 EU regulations 128
3.3 euFAQT countries 139

CHAPTER IV

Anti - smoking interventions among youth 157

4.1 General issues - types of intervantions 158
4.2 Evaluation of the basic types and models of intervantions 160
4.3 Conclusion 168

Bibliography 175

The globalization of tobacco began more than 500 years ago, but the public health response to the death, disease, and economic disruption that it has caused is fewer than 50 years old (1).

INTRODUCTION

WHO has released new data showing that while progress has been made, not a single country fully implements all key tobacco control measures, and outlined an approach that governments can adopt to prevent tens of millions of premature deaths by the middle of this century. Unless urgent action is taken, tobacco could kill one billion this century (2).

Authors of the latest Report, led by Thomas Glynn, American Cancer Society director of Cancer Science and Trends, point out that: "*the globalization of tobacco caused tobacco-related deaths: 100 million dead in the 20th century, currently 5.4 million deaths every year and by 2030 - there will be more than 8 million deaths every year, and by 2030, more than 80% of tobacco deaths will be in developing countries; 1 billion estimated deaths during the 21st century - unless urgent action is taken"* (1).

Dr Margaret Chan, WHO Director – General concludes – *"Reversing this entirely preventable epidemic must now rank as a top priority for public health and for political leaders in every country of the world"* (2).

Study results show that among one billion people smoking around the world, more than three quarters live in countries characterised by low or middle-low income, and where tobacco smoking indices grow rapidly. Tobacco smoking significantly contributes to health inequality in Europe where the prevalence of smoking is much higher among people with lower socio-economic status. People from lower socioeconomic groups not only smoke more frequently but consequences of tobacco use are more severe among them (3)(4).

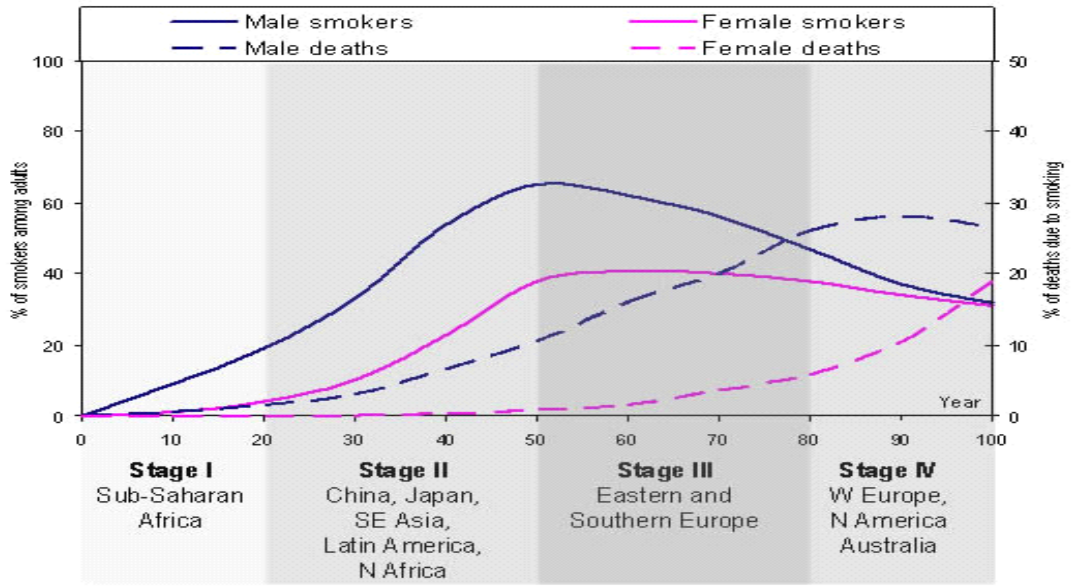
One of the examples of studies in Poland and UK has demonstrated an association between poverty or level of education and an increase in tobacco-related mortality. In Poland, researchers have estimated that tobacco use is responsible for about two-third of the excess

risk of death in middle age for those with only primary-level education compared with those with university education.[1]

According to the authors of this Report ("The Globalization of Tobacco Use: 21 Challenges For The 21st Century") tobacco now has at least 1.3 billion users and kills more than 14,500 people every day, while debilitating and sickening many times that number. With more than 1.3 billion tobacco users in the world today, if only half of them wished to stop their tobacco use, there would be need for access to tobacco dependence treatment for greater than 650 million tobacco users. Furthermore, the World Bank has estimated that more than 180 million lives could be saved in just the first half of this century if the prevalence of current tobacco users were cut in half by 2020, and providing access to adequate treatment would be a cornerstone of that approach (1).

Tobacco smoking epidemic model in developed countries was described in mid-90's(6). The concept was based on over 100-year-long observation in countries where smoking has its long-standing history. The model describes 4 stages of cigarette consumption and each of them has its estimated mortality rate among men and women due to smoking. (Fig.1).

Fig. 1. The smoking epidemic
(Adapted from Lopez AD, Collishaw NE, Piha T. A descriptive model of the cigarette epidemic in developed countries. Tobacco Control 1994; 3: 242-247)



According to data on the Heath-EU Portal –Public Heath Europe[2], (5) - the number of tobacco

[1] Quotation following: Tobacco or Health in the European Union. Past, Present and Future. Office for Official Publications of the European Communities, Luxembourg, 2004, p.56-57
[2] http://ec.europa.eu/health-eu/

smokers in the European Union countries is high and it refers to 1/3 of population and health problems connected with tobacco use are the cause of death in about 650 thousand deaths, of which almost a half dies at the age of 35-69 which means that they live shorter than the average life expectancy.

In general, levels of smoking have been seen as following 4 stages. In the 1st stage is a rapid rise in smoking by males (smoking begins as a male habit); in the 2nd stage a rise in smoking by females (men have adopted smoking - females begin to smoke); in the 3rd stage – a plateau in smoking among males or begins to decline, while female smoking prevalence remains stable; the 4th phase is characterized by plateau a decline and decline in both genders. Mortality patterns are now indicative of the impact of smoking trends two to three decades ago. Then, trends in prevalence are followed two or three decades later by similar peaks and falls in mortality caused by smoking.

Tobacco epidemic is at different stages in different European countries. In general, western European males began smoking early in the 20th century with females taking up smoking most commonly in the second half of that century. From 1950 onwards, the proportion of males smoking started to decline, but declines in females smoking only followed from the mid 1970s. Only some western European countries (most notably the UK, Germany, Denmark and Finland) and the USA, Canada and Australia – are in 4th stage of tobacco epidemic. The changes have been achieved among others by the development in policies in these countries aimed at tobacco smoking reduction (7). The situation is different in eastern and central European countries. The closed societies of the Soviet bloc were largely deprived of public education on the harmful effects of smoking. Reports from scientific studies of the relationship between smoking and cancer and other diseases, undertaken chiefly in the UK and the USA since the 1950s, apparently did not penetrate central and eastern European countries. Awareness of harm to health due to smoking was very low until the 1980s. This attitude towards tobacco, which prevailed until almost the end of the 1980s, put these countries on top of the list of world tobacco consumption from the early 1960s until the end of the 20th century[3]. The prevalence of smoking by males in these countries is now peaking or only just beginning to decline, whereas smoking is still increasing amongst females.

[3] Quotation following: Tobacco or Health in the European Union. Past, Present and Future. Office for Official Publications of the European Communities, Luxembourg, 2004, p.42-43

Most central, eastern and southern European countries are, therefore, in the 3rd stage of the epidemic. As it has been mentioned, the countries are characterised by a high percentage of smokers and the number of deceases due to tobacco use is growing. The national strategies of fighting against tobacco smoking are now under preparation (8)(9).

Gender and country differences in smoking trends follow the stages model of the smoking epidemic also among adolescents (6). On the base of 4 periods HBSC survey (1990-2002) 3 daily smoking trend groups were identified but the pattern of the smoking prevalence trend was slightly different among boys and girls at age of 14-15 (10).

Daily smoking prevalence among boys:

Group A: countries with a significant decline (Finland and Sweden) or stagnation in daily smoking (Norway, Austria and Hungary).

Group B: countries with an increasing trend (Belgium, Canada and the UK) in smoking prevalence in 1994 and 1998 followed by a significant decrease in the survey of 2002.

Group C: countries with an increasing trend or without stabilization (the Eastern European countries – Poland and Latvia) and Switzerland - where smoking prevalence has increased since 1990, followed by stabilization in survey of 2002. The smoking odds between 1990 and 2002 even doubled in Latvia and Switzerland.

Daily smoking prevalence among girls:

Group A: countries where daily smoking prevalence remained constant from 1990 to 2002 (Finland, Norway and Sweden); in Finland – stabilization occurred after a decline in 1994 and 1998 compared with 1990.

Group B: countries with an increasing trend - includes the same countries as among boys (Belgium, Canada and the UK) where smoking prevalence in 1994 and 1998 followed by a significant decrease in the survey of 2002. But it is remarkable to notice that Canada is the only country in this study where girls have a significantly lower smoking prevalence in 2002 compared with 1990.

Group C: daily smoking prevalence increased in 1994 and/or 1998, with stabilization between 1998 and 2002 (Austria, Switzerland, Latvia, Poland). An exception is Hungary, where smoking prevalence remained stable till 1998 followed by an increase in 2002. The highest

increases in girls' daily smoking prevalence between 1990 and 2002 are found in Latvia and Switzerland.

However, these mentioned above theories are helpful in categorizing country by smoking prevalence but do not explain the large differences in smoking prevalence between the countries (6). Moreover, preventive approach with young people can prevent disease 30-50 years in the future, whereas smoking cessation in current adult smokers brings population health gain more quickly, over 20 to 30 years (11).

Additionally, findings coming from GYTS (2002 – 2005) (12) can be also put into context with the descriptive model for cigarette smoking epidemic developed by Lopez et al. (6). According to this model, most of the surveyed 25 European countries currently fall into its 3rd or even 2nd stage characterized by distinct predominance of smoking of men and gradual growth of smoking of women. Such development leads to disappearance of gender differences and consequently to increase of smoking attributable diseases among women as seen currently in Western Europe and North America.

Due to smoking prevalence among teenagers, the alarming facts include ever growing percentage of regular smokers and early – even before the age of 10 – age of smoking initiation. Due to the fact that smoking behaviour is often initiated in late childhood and adolescence early smoking onset is predictive of heavy smoking in adulthood (13).

Smoking among adolescents may well show important fluctuations in regularity, from weekly to daily smoking. Daily smoking adolescents are a public health problem as they are more likely to smoke in the future and to develop smoking-related health problems leading to premature deaths. However, since daily smoking is defined as an important part of nicotine dependence, it may serve as an indicator in order to get a clear picture of the current and future burden of smoking on the public health. If daily smoking is declining, this behaviour can be overtaken by occasional smoking and can go to a stop and quit smoking. Prevention and delay of adolescent smoking is therefore an important issue in public health (14).
Vast majority of adult smokers began smoking as teenagers and only very few individuals begin smoking after age 21[4].

[4] Fritz, D. J., Adolescent smoking cessation: how effective have we been?; J.Pediatr.Nurs.; 2000; Oct.;Vol. 15; Iss. 5, p. 229

Moreover, those, who do not smoke before the age of 20, are significantly less likely to start as an adult. This is the strong cause for programs for young people that address both prevention and treatment. Ages 10-16 are the high risk period for first nicotine use, so it should be a main target of prevention (15).

Studies on smoking prevalence among children and adolescents at school age have been carried out in many countries and many editions. They include the following WHO cross - national studies:

- Health Behaviour School-aged Children (HBSC) – school- based survey, carried out every 4 years since 1982 (16).
- Global Youth Tobacco Survey (GYTS) – school-based survey carried out within the years 2000 -2007 (17).
- The European School Survey on Alcohol and Other Drugs (ESPAD) – carried out within the years 1995- 2007 (18) Each of the quoted studies has its own, separate standardised methodology: questionnaire, target population, core questions, data collection instrument, timing and data processing. Thanks to it, it is possible to compare the gained data and to monitor the similarities and differences among the countries.

Studies carried out within the years 2002 - 2005 within the frame of GYTS among teenagers aged 13-15 from 25 European countries produced representative data for each country.
Its purpose was to identify among others similarities and differences in tobacco prevalence, its initiation before the age of 10, and also some other aspects or influences connected with adolescent smoking like: susceptibility to initiate smoking among never smokers, exposure to second-hand smoke (SHS) at home and outside the home, parental smoking, exposure to indirect tobacco advertising (having an object with a tobacco company logo on it and ever having been offered a "free" cigarette by a tobacco company representative (12).

Daily smoking prevalence

Overall, among students in the 25 European countries, 22.0% of boys and 17.8% of girls smoked cigarettes. For boys, current cigarette smoking was highest in Georgia (35.5%) and lowest in Montenegro (6.0%); for girls current smoking was highest in Bulgaria (39.4%) and lowest in Armenia (0.9%). For boys and girls, current cigarette use was greater than 20%

in all Baltic, Central (except Poland for boys and girls), and Eastern European countries (except Moldova for girls). Boys were significantly more likely than girls to currently smoke cigarettes in 7 of the 25 countries; girls were significantly more likely than boys to currently smoke cigarettes in Bulgaria; there was no difference by gender in the 17 other countries.

Smoking initiated before the age of 10

Almost 4 in 10 boys (37.0%) and 2 in 10 girls (21.6%) in the 25 European countries who ever smoked cigarettes, initiated smoking before the age of 10. Early initiation of smoking was more than 40% for boys in the Baltic, Eastern Europe (except Belarus), and Caucasus regions. Boys were significantly more likely than girls to initiate smoking early in 13 of the 25 countries; there was no difference by gender in the 12 other countries.

Smoking initiation among boys

The highest percentage of boys starting smoking before the age of 10 was found in Montenegro (54.8%), Georgia (51.7%) and Moldova (51.1%), then among Baltic countries – Latvia (45.4%), Estonia (47%), also in Lithuania (41.5%) as well as in Armenia (44.3%) from Caucasus regions. Early initiation of smoking was also high in the Russian Federation (40.7%) and Ukraine (40.4%).

Smoking initiation among girls

Among girls the highest level of starting smoking before the age of 10 was in Caucasus regions – in Armenia (53.4%) and in Georgia (47.4%). The high level of early initiation age of smoking was also noted in Southeastern Europe: in Montenegro (37.6%), Bosnia and Herzegovina (36.9%), Croatia (32.4%) and in the Republic of Serbia (30.2%).

Smoking initiation in euFAQT countries

In 4 out of 6 euFAQT Project participating countries the level of smoking initiation before the age of 10 was almost the same, i.e. in Poland – 22.8%, Romania – 22.1%, Greece – 21.4% and in Slovakia – 29,1%. The greatest differences by gender were noted in Romania, Slovakia and Poland; and the smallest differences referred to Hungary and Greece.

Susceptibility to smoke among never smokers

Among students in the 25 European countries who had never smoked cigarettes, 29.9% of boys and 35.8% of girls indicated that they were susceptible to initiate smoking in the next

year. Susceptibility to smoke was highest in Moldova for both boys (60.3%) and girls (69.9 %) and was lowest in Turkey for both boys (8.2%) and girls (5.3%). There was no difference by gender in 22 of the 24 countries; boys were significantly more likely than girls to be susceptible in Hungary: 15.6% boys versus girls 29.8%, but also in Bulgaria – 25.5% boys and 34.3% girls, and Romania – 19.7% boys and 33.7% girls. Susceptibility to smoke was the lowest in Turkey – for both boys and girls 8.2% and 5.3% respectively.

Exposure to second-hand smoking (SHS) in homes

Exposure of adolescents to second-hand smoke (SHS) was very high throughout the 25 European countries. Almost 8 in 10 students (78.7%) reported being exposed to smoke at home in 7 of the 25 countries. The greatest number of people was exposed to second-hand smoke in Georgia – almost all (95.0%) and in Southeastern Europe countries: the Republic of Serbia (97.7%), Bosnia and Herzegovina (96.5%), Montenegro (96.1%), Croatia (94.9%), FYR Macedonia (91.9%), Romania (90.4%) and in Greece (89.8%). Apart from the two named countries taking part in the euFAQT Project in the remaining partner countries the exposure of adolescents to second-hand smoke was: in Poland (86.7%), Hungary (84.0%), Slovakia (79.5%) and Bulgaria (67.7%).

Exposure to SHS second-hand smoking outside homes

Exposure to SHS in public places was over 90% in 10 of the 25 countries; 87.3% reported they were exposed to smoke from others in public places during the past week. The highest exposure was identified in Moldova (96.7%), Greece (94.1%) and Georgia (93.8%). In the euFAQT countries the exposure was high also in Hungary (92.8%), Poland (90.4%), Slovakia (85.7%), Romania (81.5%) and Bulgaria (75.7%).

Other aspects or influences connected with adolescent smoking

With regard to smoking parents, 61.6% of adolescents reported at least one of their parents smoke; the highest percentage of adolescents having one or more parents who smoke cigarettes was living in Bulgaria (75.5%) and Georgia (73.0%), the lowest level – but still high – was indicated in Albania (46.3%) and Slovenia (46.5%).

Almost 2 in 10 students in 25 European countries (18.2%) reported that they had an object with a cigarette brand logo on it; the highest indication was in Latvia (33.2%) and the lowest in Turkey (10.1%).

With regard to the fact of offering "free" cigarettes it may be pointed out that in 25 European countries 10.9% reported that they had ever been offered "free" cigarettes by a tobacco company representative; being offered "free" cigarettes was over 20% in Poland, the Republic of Serbia and Montenegro.

Based on the results gained in the GYTS (2002-2005) from 25 European countries, the following conclusions were drawn:

- Remarkably high prevalence of girls' smoking together with high occurrence of smoking susceptibility is a reason for concern and should be reflected in effective preventive measures.
- Very high prevalence of second-hand smoking suggests a high level of acceptance of smoking throughout the 25 European countries, particularly in Southeastern region.
- Despite of current legislative restrictions, a significant proportion of students reported indirect pro-tobacco advertisement, namely having an object with cigarette brand logo and being offered free cigarette samples.

Undoubtedly, both theory and empirical findings demonstrate the multivariate complexity of the aetiology of tobacco use. The reasons adolescents begin and continue to smoke depend on a complex array of factors contributing to an adolescent's decision. The risk factors positively correlating with adolescent smoking include physiological, social, psychological, environmental, and economic factors (15).

One of the most important tasks during adolescence is emotional development, especially development of the ego and identity. Many adolescents choose to initiate cigarette smoking as a result of conflicts during this phase of normal developmental progression. Youth smokers believe smoking offers emotional or social benefits, and intend to continue smoking. Many investigations showed that smoking prevalence is generally lower among female than among male but increasing rates of smoking initiation and continuation by female compared with male adolescents are found in many countries.

There is some evidence suggesting the different reasons for girls and boys starting smoking. The significance of social influences, self-image and self-esteem may be particularly important to teenage girls. Probably, females are more susceptible to the negative influence of smoking friends. Other cultural expectations may also place females at increased risk for smoking (19).

In a study carried out in north-western U.S. on adolescents (in rural region) regarding modifiable social and intrapersonal influences on smoking, different predictors of smoking initiation and susceptibility to smoking among non-smoking population over a 2-year period have been identified. Initiation of weekly smoking was associated with: having a parent, sibling, or close friend - who smokes; low school grades; higher levels of deviant behaviour; susceptibility to smoking; use of smokeless tobacco. Susceptibility, defined as not being able to rule out the idea of smoking a year after the survey, was identified as a strong predictor of smoking and a valuable intermediary measure. Susceptibility to smoking was associated with deviant behaviour, low grades, lower parental monitoring, relaxed parental attitude toward youth smoking, ease of access to tobacco, and lower exposure to anti-tobacco messages (20).

There is one important implication that prevention programs should be assessed in terms of their impact on both smoking behaviour and susceptibility to smoking. Research and practice in tobacco prevention would benefit from assessing factors related to changes in susceptibility as a mediating factor in the progression towards smoking,

This study also adds important information to existing evidence; it supports the idea that susceptibility to smoking, as an intermediary to smoking initiation, could be subject to tobacco research. Moreover, it could guide the tailoring of anti-tobacco messages according to the unique risk profile of individual adolescents (21). Nevertheless, it would be an interesting and unquestionably valuable discovery, to detect "abstinence correlates" not only in relation to cigarette smoking but also to the use of other psychoactive substances.

Within ESPAD survey conducted among 16–year old high school students from six European countries (Bulgaria, Croatia, Greece, Romania, Slovenia and the UK) correlates of smoking were also examined: environmental, behaviour-related, and psychological factors. Studies identified that the strongest correlates to the use of all legal (including tobacco smoking) and illegal substances were: peer and older sibling model of use, and peer-oriented lifestyle,

followed by patterns of antisocial behaviour and truancy. Family-related factors such as not living with both parents, parental monitoring and relationships with parents were less significant (22)(23).

All these data allow concluding that tobacco use study among youth - in age below 13 as well 13 – 15, and 15+, in all regions and countries, also in Europe, are urgently needed. Moreover, some of countries need to develop and implement comprehensive tobacco control programs including public education campaigns, cessation programs, enforcement of existing measures, and related policy efforts.

Tobacco control policies varied widely in European countries in the last 20 years (24). Undoubtedly, however, the Framework Convention Tobacco Control declared by the Word Heath Organization on 21 May 2003 and entered into force on 27 February 2005 played an important role in diminishing the scale of the tobacco smoking phenomenon and its health implications (25).

It is the world's first international treaty for public health. It has been ratified already by 171 countries. The WHO FCTC provides a useful framework for implementing comprehensive approach to tobacco control in all countries. Convention Tobacco Control obliges countries all around the world to introduce ever more strict means not only limiting the consumption of tobacco by adults, children and adolescents but also limiting exposure to second-hand smoking in homes and in public places, which as a consequence is supposed to decrease the number of tobacco smoking related deaths.

Exposure to second-hand smoking is very common world wide in homes and outside of it in public places. As Dr Ala Alwan, Assistant Director – General, World Health Organization said: *"Despite progress, only 9% of countries mandate smoke-free bars and restaurants, and 65 countries report no implementation of any smoke-free policies on a national level"*. According to new WHO Report on "Implementing smoke-free environments"**,** globally, about one third of adults are regularly exposed to second-hand tobacco smoke (26).

In the European Union, 14% of non-smokers are exposed to other people's tobacco smoke at home, and a third of working adults are exposed to second-hand tobacco smoke at the workplace at least some of the time (27).

In Canada, about 25% of non-smokers report regular exposure at home, in vehicles or in public places (28). An estimated 700 million children worldwide – about 40% of all children – are exposed to second-hand tobacco smoke at home (29). The global average of children with at least one smoking parent, according to the definition used by the Global Youth Tobacco Survey (GYTS), is estimated to be 43% (*20*). Data from the GYTS indicate that, among those surveyed, nearly half of youth aged 13 to 15 who have never smoked are exposed to second-hand tobacco smoke at home, with a similar percentage exposed in places other than the home; these youth are 1.5 to 2 times more likely to initiate smoking than those not exposed (30). Second-hand tobacco smoke is estimated to cause about 600 000 premature deaths per year worldwide, approximately the same number of people who are killed by measles or women who die during childbirth each year (31). Of all deaths attributable to second-hand tobacco smoke, 31% occur among children and 64% occur among women. About 50,000 deaths in the United States each year – about 11% of all tobacco-related deaths – are attributable to exposure to second-hand tobacco smoke (32). In the European Union, second-hand tobacco smoke exposure at work is estimated to cause about 7,600 deaths per year, with exposure at home causing an additional 72,100 deaths (33).

This report on "Implementing smoke-free environments" provides a comprehensive overview of the evidence base for protecting people from the harms of second-hand tobacco smoke through legislation and enforcement. There is a special focus on the status of the implementation of smoke-free policies, with detailed data collected for the first time ever on a global basis at both the national level and for large sub-national jurisdictions. Because there is no safe level of exposure to second-hand tobacco smoke, all people should be protected from such exposure and smoke-free policies should be implemented all over the world as relatively inexpensive but effective one (26).

Moreover WHO makes the following four key policy recommendations to protect the public from exposure to second-hand smoke:

- **Remove the source of the pollutant – tobacco smoke** – by implementing 100% smoke-free environments. This is the only effective strategy to reduce exposure to second-hand tobacco smoke to safe levels in indoor environments and to provide an acceptable level of protection from the dangers of exposure. Ventilation and smoking areas, whether separately ventilated from non-smoking areas or not, do not reduce exposure to a safe level of risk and are not recommended.
- **Enact legislation requiring all indoor workplaces and public places to be 100% smoke-free environments.** Laws should ensure universal and equal protection for all. Voluntary policies are not an acceptable response to protection. Under some circumstances, the principle of universal, effective protection may require specific quasi-outdoor and outdoor workplaces to be smoke-free.
- **Implement and enforce the law**. Passing smoke-free legislation is not enough. Its proper implementation and adequate enforcement require relatively small but critical efforts and means.
- **Implement educational strategies to reduce second-hand tobacco smoke exposure** in the home, recognising that smoke-free workplace legislation increases the likelihood that people (both smokers and non-smokers) will voluntarily make their homes smoke-free (26).

  It is also worth mentioning that since 1986, there have been a series of authoritative reports analysing evidence, and concluding, beyond doubt, that there is significant risk to health caused by passive smoking (7).

In another WHO Report which presents the first comprehensive analysis of global tobacco use and control efforts, WHO finds that only 5% of the world's population live in countries that fully protect their population with any one of the key measures that reduce smoking rates (2).

The report also reveals that governments around the world collect 500 times more money in tobacco taxes each year than they spend on anti-tobacco efforts. It finds that tobacco taxes, the single most effective strategy, could be significantly increased in nearly all countries, providing a source of sustainable funding to implement and enforce the recommended approach, a package of six policies called MPOWER.

Dr Margaret Chan, Director-General of WHO said *"While efforts to combat tobacco are gaining momentum, virtually every country needs to do more. These six strategies are within the reach of every country, rich or poor and, when combined as a package, they offer us the best chance of reversing this growing epidemic."*

In opinion of the New York Mayor Michael Bloomberg "*The report released today is revolutionary. For the first time, we have both a rigorous approach to stop the tobacco epidemic and solid data to hold us all accountable. No country fully implements all of the MPOWER policies and 80% of countries don't fully implement even one policy. While tobacco control measures are sometimes controversial, they save lives and governments need to step up and do the right thing."*

The six MPOWER strategies are as follows:

- Monitor tobacco use and prevention policies
- Protect people from tobacco smoke
- Offer help to quit tobacco use
- Warn about the dangers of tobacco
- Enforce bans on tobacco advertising, promotion and sponsorship
- Raise taxes on tobacco

The report also documents the epidemic's shift to the developing world, where 80% of the more than eight million annual tobacco-related deaths projected by 2030 are expected to occur. This shift, the report says, results from a global tobacco industry strategy to target young people and adults in the developing world, ensuring that millions of people become fatally addicted every year. The targeting of young women in particular is highlighted as one of the "*most ominous potential developments of the epidemic's growth."*

The global analysis, compiled by WHO with information provided by 179 Member States, gives governments and other groups a baseline from which to monitor efforts to stop the epidemic in the years ahead. The MPOWER package provides countries with a roadmap to help them meet their commitments to the widely embraced global tobacco treaty known as the WHO Framework Convention on Tobacco Control, which came into force in 2005.

WHO is also working with global partners to scale up the help that can be offered to countries to implement the strategies.

Dr Douglas Bettcher, Director of WHO's Tobacco Free Initiative, said: *"The six MPOWER strategies would create a powerful response to the tobacco epidemic. This package will create an enabling environment to help current tobacco users quit, protect people from second-hand smoke and prevent young people from taking up the habit,"* he said.
In the report there are other key findings:

- Only 5% of the global population is protected by comprehensive national smoke-free legislation and 40% of countries still allow smoking in hospitals and schools.
- Only 5% of the world's population lives in countries with comprehensive national bans on tobacco advertising and promotion.
- Just 15 countries, representing 6% of the global population, mandate pictorial warnings on tobacco packaging.
- Services to treat tobacco dependence are fully available in only nine countries, covering 5% of the world's people.

Moreover, tobacco tax revenues are more than 4000 times greater than spending on tobacco control in middle-income countries and more than 9000 times greater in lower-income countries. High-income countries collect about 340 times more money in tobacco taxes than they spend on tobacco control[5].

Globally, the data are very clear in indicating that the tobacco epidemic has now expanded to, and become more focused on, the world's low- and middle-income countries (LMIC), due largely to the expansion of the multinational tobacco industry's marketing efforts in Eastern Europe, Asia, Africa, and Latin America. Fortunately, although the sharply increasing tobacco use prevalence rates in these regions is a cause for considerable alarm, the deadly experience of the high income nations need not be wholly repeated in the LMICs (1).

Following the information in the report, the WHO Centres for Disease Control Global Youth Tobacco Survey found that greater than 70% of youth around the world reported that they can buy tobacco in a store without providing a proof of age. Unfortunately, for most youth,

[5] http://www.who.int/entity/tobacco/mpower/mpower_report_full_2008.pdf

in both the high income nations and LMICs, access to tobacco products is relatively simple (34).

In addition, youth can access tobacco from their homes, from friends, from vending machines, and in single- or limited-number packets from street vendors. To complement efforts to decrease the targeting of youth by the multinational tobacco companies, access points and loopholes must be addressed and closed whenever possible. This would include, as recommended in Article 16 of the FCTC ("Sales to and by Minors"), establishing and enforcing a uniform minimum age for tobacco purchases, eliminating access to tobacco vending machines, vendor enforcement of purchase restrictions, and the elimination of single and small-packet sales.

In the report (1) ("The Globalization of Tobacco Use: 21 Challenges For The 21st Century"), the authors discuss the wide range of issues that must be addressed, and the equally wide range of expertise that is needed if the global health community is to be successful in reducing, and eventually eliminating, the rising tide of tobacco use, particularly in the low- and middle-income nations that are the target of the multinational tobacco industry.

Now, in the early 21st century, with the FCTC in force in more than 165 countries, covering approximately 85% of the world's population, it is an appropriate time to look anew at the challenges facing tobacco control. Although there is good reason to focus on promoting interventions that we know have a significant impact on the reduction of the incidence and prevalence of tobacco use (e.g. increasing tobacco taxes; promoting smoke-free environments; banning tobacco advertising, sponsorships, and promotions), there is also reason (because every opportunity that may contribute to success needs to be exploited and because we need to take advantage of the full range of skills available among those who wish to contribute to tobacco use reduction) to consider the full range of interventions and tools that the data lead us to believe will also contribute to reductions in tobacco use. In some cases, guided by the Framework Convention Tobacco Control and MPOWER strategies, focus is required on increasing certain activities, policies, or interventions and, in other cases, reducing certain activities, policies, or interventions. Some suggested areas or challenges for increase/decrease are listed below:

Increase challenges:

- Increase support for and adherence to the Framework Convention on Tobacco Control (FCTC): the report calls this the single most important action in the effort to eliminate tobacco-related death and disease, saying all governments should be encouraged to join the more than 165 nations who already have ratified the treaty, and that those who have joined the Framework should faithfully implement it.
- Increase tobacco taxes: raising tobacco taxes is considered perhaps the most effective intervention to reduce tobacco use.
- Increase access to comprehensive treatment for tobacco dependence: with more than 1.3 billion tobacco users in the world today, if only half of them wished to stop their tobacco use, there would be need for access to tobacco dependence treatment for greater than 650 million tobacco users. Furthermore, the World Bank has estimated that more than 180 million lives could be saved in just the first half of this century if the prevalence of current tobacco users were cut in half by 2020, and providing access to adequate treatment would be a cornerstone of that approach.
- Increase media-based tobacco counter-marketing campaigns: although the tobacco industry will always far outspend tobacco control advocates, novel, entertaining, cutting-edge tobacco counter-marketing campaigns have been shown to attract attention and support far beyond the amount of funds spent and to have a direct effect on reducing tobacco use.
- Increase regulation of all tobacco products: tobacco is the most unregulated consumer product on the market today, exempt from important basic consumer protections, such as ingredient disclosure, product testing, accurate labelling, and restrictions on marketing to children.
- Increase health warnings on tobacco packaging: as warnings become more graphic, tobacco users are more likely to pay attention to them.
- Increase availability of tobacco health/economic information to the general public: many tobacco users, policymakers, and even health care professionals are largely unaware, or only vaguely aware, of the other cancers, heart disease, lung disease, pre- and postnatal conditions, etc that are caused by tobacco use.
- Increase primacy of health over commerce in trade agreements: successful arguments have been made that excluding tobacco from trade agreements is compatible with international law, which provides for other harmful products such as landmines to be

exempted. In addition, the World Trade Organization (WTO) has declared that human health is an important consideration and that if necessary, governments may "put aside WTO commitments" to protect human life.

- Increase basic biomedical and applied tobacco control research.
- Increase the extent and accuracy of tobacco epidemiologic and surveillance data.
- Increase litigation aimed at the tobacco industry.

Decrease challenges:

- Decrease tobacco use by physicians and other health care providers: many physicians and health care providers continue to use tobacco, with use reported to be as high as 50% or more in some countries.
- Decrease targeting of women: the WHO has estimated that the prevalence of smoking among women worldwide will be 20% by 2025, compared with the 12% of the world's women who currently smoke.
- Decrease exposure to second-hand smoke: providing smoke-free environments has been proven to not only protect non-smokers, but also encourage smokers to quit and focus greater attention on the need for tobacco control measures.
- Decrease illicit trade and smuggling.
- Decrease duty-free and reduced-cost sales of tobacco.
- Decrease tobacco advertising, promotion, and sponsorship.
- Decrease misleading tobacco product claims/descriptors.
- Decrease targeting of youth.
- Decrease subsidies for tobacco production.
- Decrease youth access to tobacco.

Authors of the report say there are certainly many other challenges not discussed in the report and that, while *"resources… will never be enough to address all of these challenges,"* actions taken with the resources currently available will have a significant effect on global health.

In conclusion: Tobacco control is unique in the public health and disease control field because it encompasses such a wide range of issues. These challenges need skilled physicians, nurses, attorneys, psychologists, teachers, product engineers, chemists, agronomists, economists,

epidemiologists, biostatisticians, health care system engineers, and many others to not only enter the field - but also to work together.

REFERENCES

(1) Glynn T, Seffrin JR, Brawley OW, Grey N, Ross H. The globalization of tobacco use: 21 challenges for the 21st century. CA Cancer.J.Clin. 2010 Jan-Feb;60(1):50-61.
(2) WHO Report on the Global Tobacco Epidemic. The MPOWER package. 2008.
(3) Mackenbach JP. Health Inequalities. Europe in Profile. 2005.
(4) Lewis PC, Harrell JS, Bradley C, Deng S. Cigarette use in adolescents: the Cardiovascular Health in Children and Youth Study. Res.Nurs.Health 2001 Feb;24(1):27-37.
(5) European Union. Available at: http://ec.europa.eu/heath-eu/.
(6) Lopez AD, Collishaw NE, Piha T. A descriptive model of the cigarette epidemic in developed countries. Tob. Control 1994(3):242-247.
(7) Tobacco or health in the European Union. Past, Present and Future. 2004:56-57.
(8) Available at: http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-30-08-357/EN/KS-30-08-357-.
(9) 20.04.2010; Available at: http://www.theipcrg.org/smoking/levels.php.
(10) Hublet A, De Bacquer D, Valimaa R, Godeau E, Schmid H, Rahav G, et al. Smoking trends among adolescents from 1990 to 2002 in ten European countries and Canada. BMC Public Health 2006 Nov 10;6:280.
(11) WHO European Partnership Project to Reduce Tobacco Dependence. WHO Evidence Based Recommendations on the Treatment of Tobacco Dependence. 2001.
(12) Baska T, Warren CW, Baskova M, Jones NR. Prevalence of youth cigarette smoking and selected social factors in 25 European countries: findings from the Global Youth Tobacco Survey. Int.J.Public.Health. 2009;54(6):439-445.
(13) Taioli E, Wyndetr EL. Effect of the age at which smoking begins on frequency of smoking in adulthood. N Engl.J Med 1991;325:968-9] 1991;325:968-969.
(14) McNeill AD. The development of dependence on smoking in children. Br J Addict 1991 1991;86:589-592.
(15) Fritz DJ. Adolescent smoking cessation: how effective have we been? J.Pediatr.Nurs. 2000 Oct;15(5):299
(16) Health Behaviour in School Children. Available at: http://www.hbsc.org.
(17) Global Youth Tobacco Survey. Available at: http://www.cdc.gov/tobacco/globar/gyts/.
(18) The European School Survey on Alcohol and Other Drugs. Available at: http://www.espad.org/espad-reports/.
(19) Barnett TA, Gauvin L, Lambert M, O'Loughlin J, Paradis G, McGrath JJ. The influence of school smoking policies on student tobacco use. Arch.Pediatr.Adolesc.Med. 2007 Sep;161(9):842-848.
(20) Forrester K, Biglan A, Severson HH, Smolkowski K. Predictors of smoking onset over two years. Nicotine Tob.Res. 2007 Dec;9(12):1259-1267.
(21) Strecher VJ. Computer-tailored smoking cessation materials: a review and discussion. Patient Educ.Couns. 1999 Feb;36(2):107-117.
(22) Kokkevi A, Richardson C, Florescu S, Kuzman M, Stergar E. Psychosocial correlates of substance use in adolescence: a cross-national study in six European countries. Drug Alcohol Depend. 2007 Jan 5;86(1):67-74.
(23) Kokkevi AE, Arapaki AA, Richardson C, Florescu S, Kuzman M, Stergar E. Further investigation of psychological and environmental correlates of substance use in adolescence in six European countries. Drug Alcohol Depend. 2007 May 11;88(2-3):308-312.
(24) Joosens L. Effective Tobacco Control Policies is 28 European countries. Report of the European Network of Smoking Prevention (ENSP). 2004.
(25) WHo Framework Convention on Tobacco Control FCTC. Available at: http://www.who.int/fctc/en/.
(26) WHO Report On The Global Tobacco Epidemic, 2009. Implementing smoke-free environments. 2009.
(27) Survey on tobacco – analytical report. Brussels. 2009;Flash Eurobarometer No. 253.
(28) Shields M. Smoking – prevalence, bans and exposure to second-hand smoke. Health Reports 2007;18(3):67-85.
(29) International Consultation on Environmental Tobacco Smoke (ETS) and Child Health. 1999.
(30) Centers for Disease Control and Prevention (CDC). Global Youth Tobacco Surveillance, 2000–2007. Morbidity and Mortality Weekly Report, 2008 2008;57:1-21.
(31) Mathers CD, Loncar D. Projections of global mortality and burden of disease from 2002 to 2030. PLoS Medicine 2006;3:e442.
(32) Centers for Disease Control and Prevention (CDC). Smoking-attributable mortality, years of potential life lost, and productivity losses – United States, 2000–2004. Morbidity and Mortality Weekly Report 2008;57:1226-1228.
(33) Lifting the smokescreen: 10 reasons for a smoke free Europe. 2006.
(34) Shafey O, Eriksen M, Ross H, Mackay J. The Tobacco Atlas. 3rd ed ed. Atlanta: GA: American Cancer Society; 2009.

CHAPTER I

Epidemiology of smoking among adolescents and some factors influencing tobacco use

1.1 European countries

1.2 USA, Canada and Australia

1.3 Prevalence of smoking in euFAQT countries by Country Reports

Introduction

In order to present statistical data on cigarette smoking epidemiology among adolescents in the countries taking part in the euFAQT Project, in the remaining European countries and in the US, Canada and Australia, international study results, study reviews and reports on health heath – related behaviour of adolescents have been used.

There is an urgent need to contimuously carry on with research. It is connected with the necessity to update data and use valuable, reliable, and representative for a particular country data. Moreover, the data should be comparable in particular age groups and study periods.

Although there are studies referring to tobacco smoking among adolescents available, comparing their results and trends tracking is prevented by methodological differences, such as sample selection, use of different research tools, way of conducting research and analysing their results. Other factors may also create limitations, e.g. different school systems in particular countries, resulting from different opportunities to include into cross- countries surveys.

1.1 European countries

Some international reviews encompassing many countries from Europe and other regions of the world have been selected for the purpose of the report:

- Health Behaviour in School-aged Children aged 13-15 – data from 1989 – 2002
- European School Project on Alcohol and other Drugs – data from 1995 – 2007
- Global Youth Tobacco Survey aged 13-15 – data from 2002 – 2007

The second part of the Chapter also includes literature review results sent by countries participating in the euFAQT Project on studies on tobacco smoking among teenagers in Bulgaria, Greece, Hungary, Poland, Romania and Slovakia. Those parts of country reports have been quoted which include data on adolescent's smoking epidemiology.

Health Behaviour in School-aged Children (HBSC) is one of the first international enterprises of this kind and it first took place in 1982[6]. The HBSC study is a cross-national and cross-country survey. The HBSC network membership currently comprises national teams from 43 countries in Europe and North America. The selected age groups – 11, 13 and 15 – represent the onset of adolescence, the time when young people face the challenges of physical and emotional changes; and the middle years, when young people start to consider important decisions. Survey questions cover a range of health indicators and health- related behaviours. The core questions provide information on: demographic factors, social background, family structure, socioeconomic status, peer culture, school environment, health and well-being, health behaviours and risk behaviours – cigarette use, alcohol use, sexual behaviour, bullying. (The publication of scientific articles in peer reviewed international journals is a priority for the study and its network members[7].).

Core Research Fields questions on tobacco use concern: ever smoked, frequency of current smoking, age first smoked (smoking initiation age) and also other questions.

The presented below results are based on data from HBSC study in the years 1990-2002; they regard daily smoking prevalence among adolescents aged 14-15. The goal of the study

6 http://www.hbsc.org

7 a full list of publications is available at http://www.hbsc.org/publications.html

was to specify similarities and differences among the 10 countries taking part in all 4 survey periods (1989–1990, 1993–1994, 1997–1998, and 2001–2002); included as follows: European countries - Austria, Belgium, Finland, Hungary, Latvia, Norway, Poland, Sweden, Switzerland, UK and Canada (1).

The prevalence of daily smoking among adolescents classified by survey years and by country for boys and girls separately is presented in Fig. 1. The studies indicated gender and country differences in the prevalence of smoking. It has been found, that in 2002 daily smoking prevalence ranged from 5.5% in Sweden to 20.0% in Latvia. Among girls, the daily smoking prevalence in 2002 ranged from 8.9% in Poland to 24.7% in Austria.

Daily smoking prevalence among boys

Among boys, the lowest prevalence in 2002 is found in Sweden (5.5%), followed by other participating European countries: UK – 10.2%; Switzerland – 12.9 %; Norway – 15.4%; Finland – 16.4%.

- The significant decline in 1990 and in 2002 was observed in Finland (from 22.7% to 16.4%), Sweden (from 9.5% to 5.5%), and Norway (from 17.1% to 15.4%) in daily smoking.
- The increase in 1994 and 1998 is followed by a significant decrease in the 2001-2002 in following countries: Belgium (from 17.8%; 21.9% and 16.4%), Canada (15.0%, 16.1% and 10.5%) and the UK (13.4%, 14.5% and 10.2%).
- The lowest prevalence in 2002 is found in Sweden (5.5%), followed by other participating European countries: the UK – 10.2%; Switzerland – 12.9 %; Norway – 15.4%; Finland – 16.4%.
- The highest prevalence in 2002 (and also the biggest increase 1990- 2002) was identified in: Latvia (20.0%); Austria (19.5%), Hungary (19.1%) and Poland (18.0%); also in Belgium daily cigarette use in 2002 (16.8%) is still significantly higher than in 1990 (10.1%).
- In Poland and Switzerland the smoking prevalence has increased since 1990 (from 12.7% and 6.3% respectively) followed by stabilization in last study 2001-2002 (to 18.8% and 12.9% respectively).

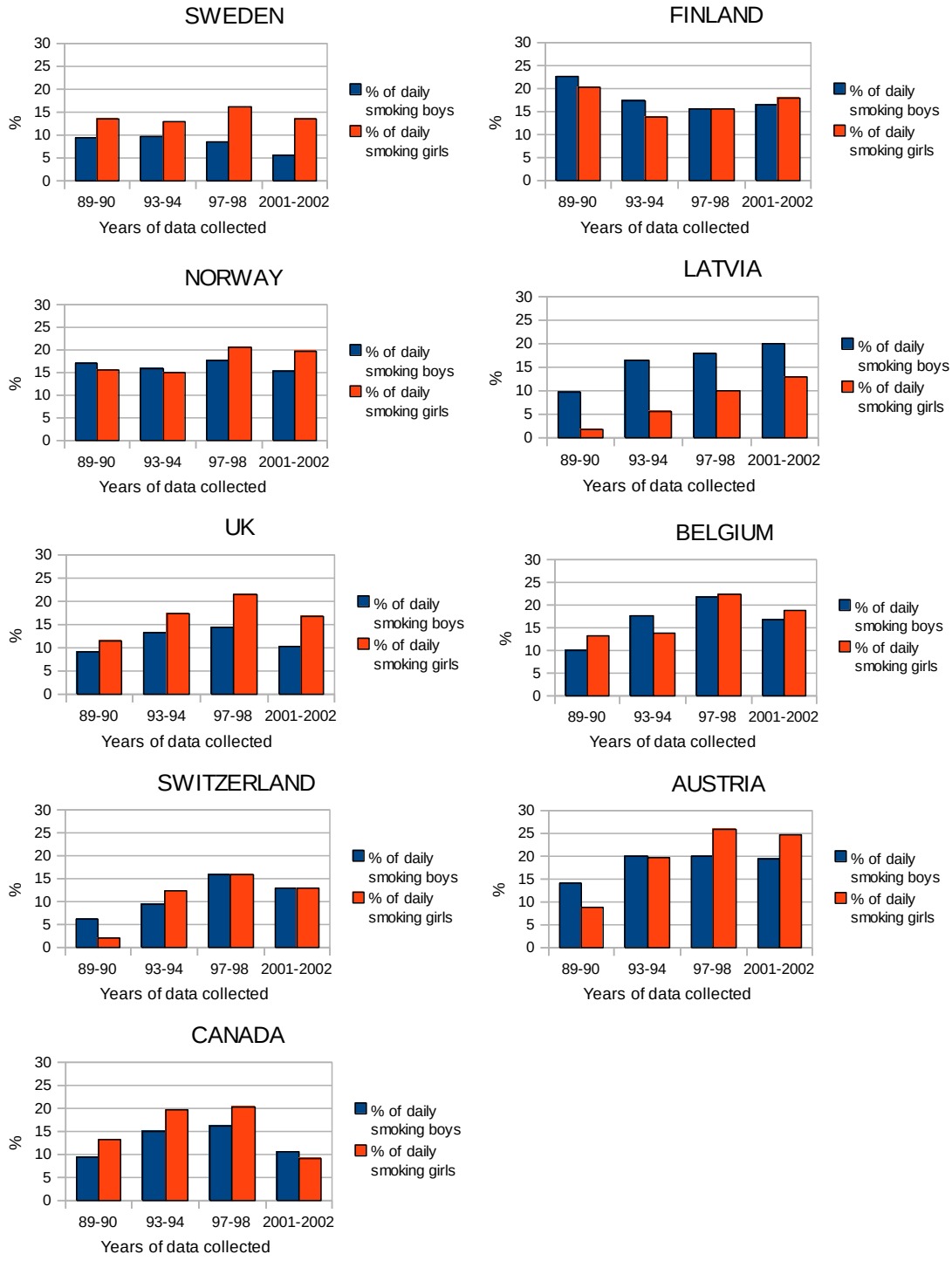


Fig.1 HBSC Survey. Prevalence of daily smoking among adolescent age 14-15. Hublet et al. 2006

Daily smoking prevalence among girls

A different pattern of smoking is observed among girls.

- The highest percentage of daily smoking girls in 2002 was found in Austria (24.7%), Norway (19.9%) and Belgium (19.0%)

- The group of countries with the lowest daily smoking prevalence in 2001-2002 includes Poland (8.9%), Canada (9.0%) and Sweden (13.7%)
- The daily cigarette smoking remained constant from 1990 to 2002 in Sweden (13.7% and 13.7%) and almost constant in Finland (20.3% and 18.0% respectively) and Norway (15.7 % and 19.7%)
- The significantly lower smoking prevalence in 2002 compared with 1990 was in Canada (13.2% and 9.0%)
- Daily smoking prevalence increased in 1994 and 1998 and stabilized between 1998 and 2002 in Austria (26.0% and 24.7%), Switzerland (15.8% and 13.0%) and Poland (9.8% and 8.9%)
- A sudden increase in smoking prevalence took place in Hungary (from 16.5% to 16.9%), Latvia (from 9.9% to 13.1%) and in Finland (from 15.7% to 18.0%)

As it may be observed based on the above quoted studies, they included Poland and Hungary – participants of the euFAQT Project. (Fig 1a.)

In Poland smoking prevalence among boys has not changed within the years 1997 - 1998 and was about 18.0 %. In Hungary, however, a significant increase from 12.8% to 19.1% was observed. Another significant issue observed is the fact that in Poland smoking prevalence among boys in 2002 was about two times higher (18.0%) than among girls (8.9%). In Hungary these differences were not so significant: 16.1%- boys and 16.9% - girls.

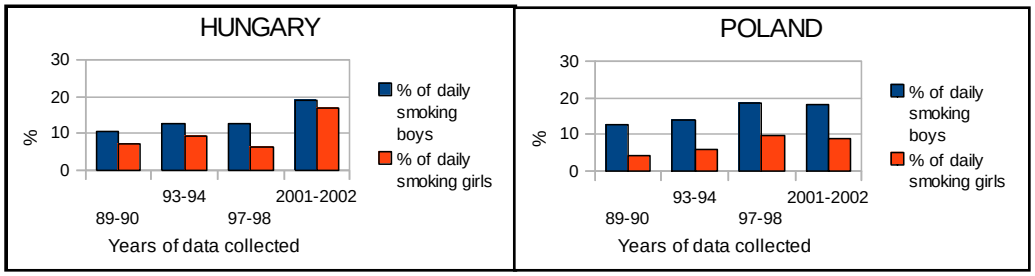


Fig.1a HBSC Survey. Prevalence of daily smoking among adolescent age 14-15 in Poland and Hungary. Hublet et al. 2006

In general in the European Union countries with membership before 2004, a converging trend among adult smokers has been observed (2). However, this trend was not observed in daily smoking among adolescents.

Taking into account also some new member states, in 2002 the smoking prevalence among boys and girls differed in those countries significantly. It is difficult to explain these differences not taking into account important differences in youth cultures among the countries.

Another important factor is differences in tobacco control policy in particular countries, which was and still varies in European countries (3).Undoubtedly, the Framework Convention Tobacco Control declared by the Word Heath Organization on 21 May 2003 and entered into force on 27 February 2005 obliges countries all around the world to introduce ever more strict means not only limiting the consumption of tobacco by adults, children and adolescents but also limiting exposure to second-hand smoking in homes and in public places (4).

The main purpose of the European School Survey Project on Alcohol and Other Drugs (ESPAD) is to collect comparable data on substance use among 15–16 year-old European students in order to monitor trends within as well as between countries.

ESPAD studies, in general, focus on various psychoactive substances use by adolescents; consequently, tobacco smoking issue is just one of them. Basically, questions on smoking regarded: lifetime use of cigarettes, last 30 days use of cigarettes, age of onset for cigarette use, perceived availability of cigarettes.

Consequently, this study concentrates mainly on quoting the most important results regarding smoking during the past 30 days. (Fig.2)

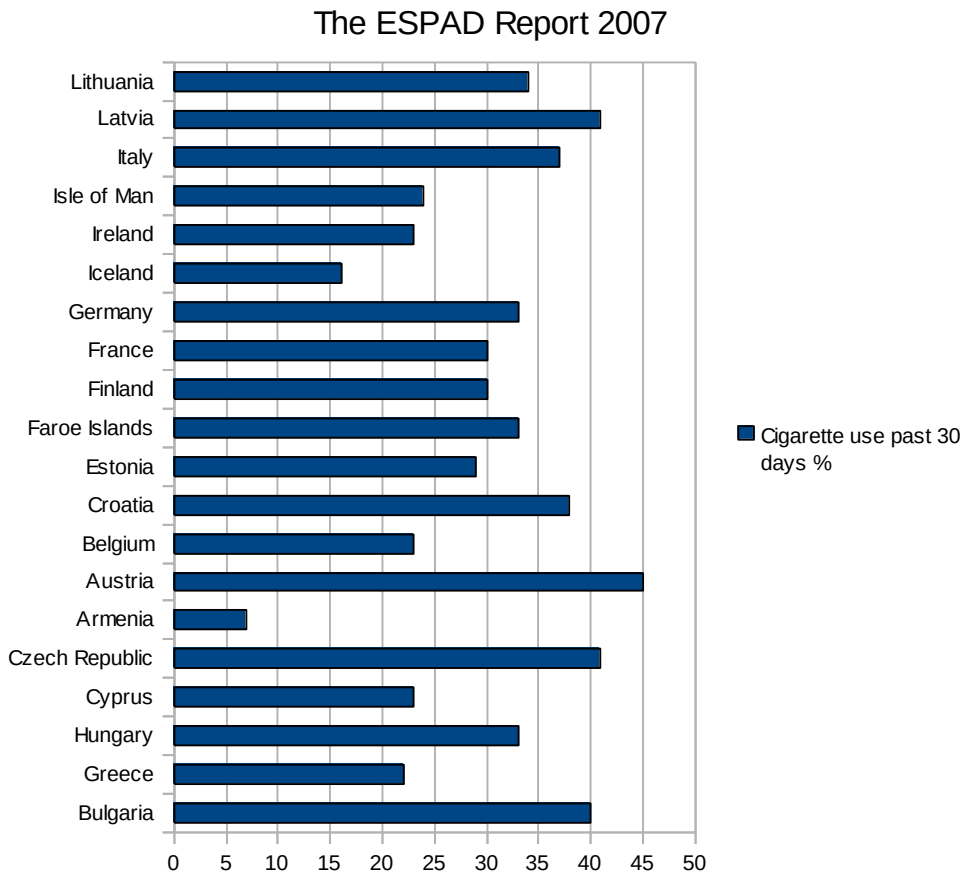


Fig. 2. Prevalence of smoking. Cigarette use in past 30 days. ESPAD report (http://www.espad.org)

The ESPAD project has been conducted among adolescents in mean age: 15.8 (born in 1991). The first study was held in 26 countries in 1995, while the 2007 data collection was performed in 35 countries.

In the 2007 survey, on average, 58% of the students in participating countries reported having tried smoking cigarettes at least once and 29% had used cigarettes during the past 30 days. Two percent of all students had smoked at least a packet of cigarettes per day during the past 30 days. The ranking orders of countries for lifetime and relatively recent use (past 30 days) are more or less the same.

High-prevalence countries for cigarette use past 30 days are Austria, Bulgaria, the Czech Republic and Latvia (40–45%) and low prevalence countries are: Armenia, Iceland, Norway and Portugal (19%).

It is significant that there is no obvious geographical pattern, but students in Central and Eastern European countries are often among those reporting higher rates of smoking.

In countries where more students smoke, one is also more likely to find students reporting that cigarettes are easily obtainable.

An early smoking debut (age of 13 or younger) is also associated, at the country level, with high levels of use in the past month. On average, 7% of the students said that they had been smoking cigarettes on a daily basis were at the age of 13 or younger.

Daily cigarette use at this early age is most common among students in the Czech Republic, Estonia, Latvia and the Slovak Republic (prevalence rates of about 13%) and least common among students in Greece and Romania (around 3%). At the aggregate country level, the gender differences in 2007 are negligible for smoking in the past 30 days. However, in individual countries great differences may be observable. For example, boys were 16 percentage points above girls in Armenia and conversely, girls were 19 percentage points above boys in Monaco.

Over time, a slight decrease in the past 30 days' smoking may be noticed, the total average prevalence rate having dropped by four percentage points between 1995 and 2007 in ESPAD countries with comparable data for all four waves. If the comparison is confined to the period between 1999 and 2007, the drop in relatively recent smoking is seven percentage points. A small overall gender gap (4 percentage points) was noticed in 1995 but this gap had vanished in 2007.

ESPAD studs concluded that only in four countries – Croatia, Czech Republic, Lithuania and Slovakia – contrary image regarding the long-term downward trend in recent smoking, displaying higher levels in 2007 than in 1995.
In all those countries, however, the actual increases took place already between 1995 and 1999 and the situation has been relatively stable thereafter. Hence, the overall picture of the trend in past 30 days smoking in the ESPAD countries is one of a decrease, or at least of a stabilized situation (5).

Having in mind the goal of this study, data on the last 30 days use of cigarettes among 15–16 year-old adolescents from countries taking part in the euFAQT Project have been discussed separately. (Fig. 3)

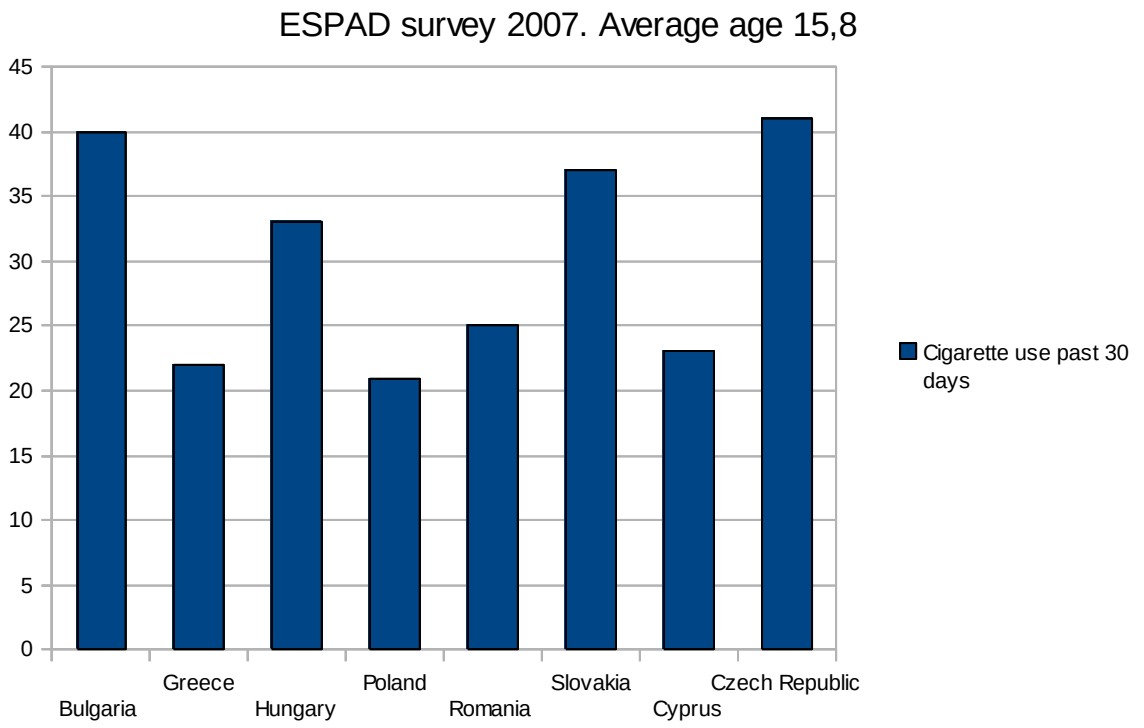


Fig. 3. Prevalence of smoking. Cigarette use in past 30 days in euFAQT countries. ESPAD report (http://www.espad.org)

Within the frame of the ESPAD study, study on daily smoking prevalence among boys and girls has also been carried out among lower age group (below 13 and 13-15). Based on data from ESPAD website[8] on adolescents aged 13 and younger, it is possible to compare daily smoking prevalence in particular years of study i.e. in 1995, 1999, 2003 and 2007.
Countries participating in euFAQT Project have been selected to be compared; comparing data from 2003 and 2007 the following trends have been observed:

- reduction of daily cigarette using among boys and girls - in Greece, Bulgaria, Romania and Poland

[8] http://www.espad.org/espad-reports/

- increase in percentage of smoking girls and boys - in Slovakia
- increase in percentage of smoking girls with parallel percentage of smoking boys staying at the same level in both compared periods - in Hungary

The Global Youth Tobacco Survey (GYTS), developed by WHO, the US Centres for Disease Control and Prevention and the Canadian Public Health Association, provides global systematic, reliable and representative data on tobacco use and related factors in schoolchildren 13–15 years of age.

Countries can use GYTS data to enhance their capacity to monitor tobacco use among youth; guide development, implementation, and evaluation of their national tobacco prevention and control programmes; and allow comparison of tobacco-related data at the national, regional, and global levels. GYTS data can also fulfil many of the surveillance requirements of the WHO Framework Convention on Tobacco Control Countries that have ratified the WHO FCTC are required to establish surveillance of "the magnitude, patterns, determinants, and consequences of tobacco consumption and exposure to tobacco smoke" (4).

Core Research Fields questions on tobacco use concern many aspects: prevalence of cigarette smoking and other tobacco use, knowledge and attitudes towards cigarette smoking, role of the media and advertising on the use of cigarettes, access to cigarettes, tobacco-related school curriculum, exposure to second-hand smoke (SHS), cessation of cigarette smoking and also other background information.

The presented below analysis of the GYTS study results regards 25 European countries grouped into regions (6):

- Baltic - Estonia, Latvia and Lithuania
- Central Europe - Czech Republic, Hungary, Poland, and Slovakia
- Eastern Europe - Belarus, Moldova, Russia, and Ukraine
- South-Eastern Europe - Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, FYR Macedonia, Greece, Montenegro, Romania, Serbia, Slovenia, and Turkey
- Caucasus - Armenia and Georgia

Overall, among students in the 25 European countries, 22.0% of boys and 17.8% of girls smoked cigarettes. Boys were significantly more likely than girls to currently smoke cigarettes in 7 of the 25 countries; girls were significantly more likely than boys to currently smoke cigarettes in Bulgaria; there was no difference by gender in the 17 other countries. For boys and girls, current cigarette use was greater than 20% in all Baltic, Central (except Poland for boys and girls), and Eastern European countries (except Moldova for girls).

Fig. 4 presents / shows current cigarette smoking in particular countries by gender. For boys, it was highest in Georgia (35.5%) and lowest in Montenegro (6.0%); for girls current smoking was highest in Bulgaria (39.4%) and lowest in Armenia (0.9%).

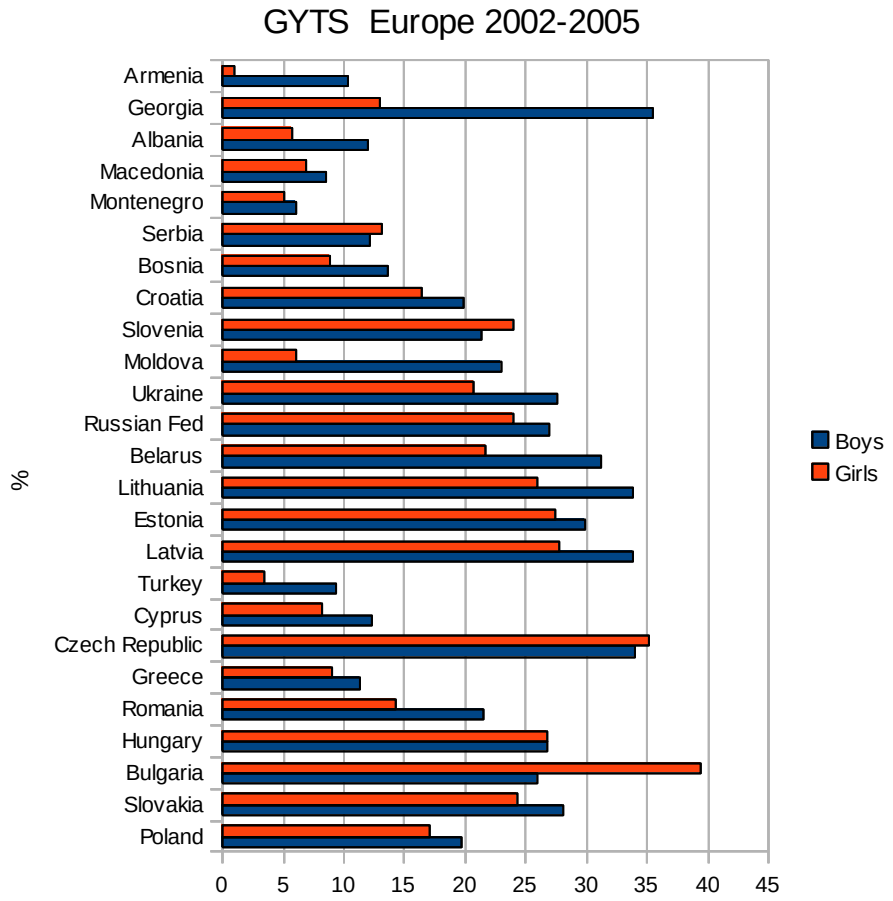


Fig. 4. Prevalence of cigarette smoking by gender. GYTS survey (Baska,T. 2009)

Fig. 4. presents / shows current cigarette smoking in particular countries by gender. For boys, it was highest in Georgia (35.5%) and lowest in Montenegro (6.0%); for girls current smoking was highest in Bulgaria (39.4%) and lowest in Armenia (0.9%).

Comparison of cigarette smoking prevalence in particular countries is presented in Fig 5a-5d.

- **Baltic Region**

  Among countries of this region the same highest prevalence of smoking among boys was observed in: Latvia and in Lithuania – 33.8% and only slightly lower in Estonia (29.8%). Among girls – prevalence of smoking was almost on the same level: from 25.9% - in Lithuania to 27.8% - in Latvia.

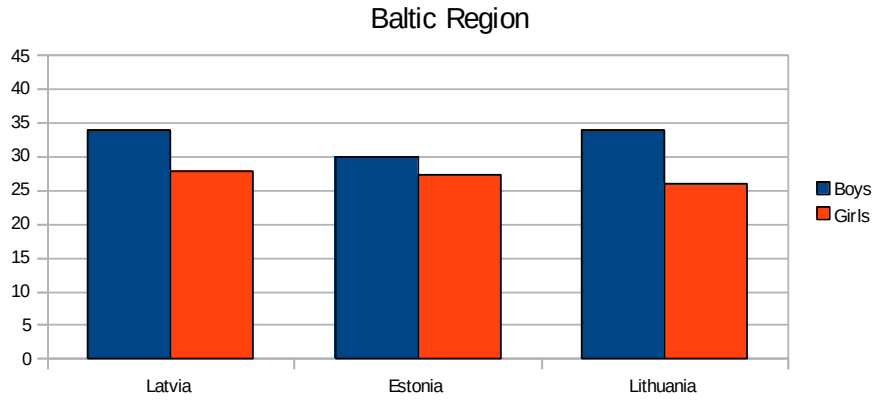


Fig 5a. Baltic Region: prevalence of cigarette smoking by gender. GYTS survey (Baska,T. 2009)

- **Central Europe**

  The highest prevalence of smoking among boys and girls was in the Czech Republic - 34.0% and 35.1%; in Hungary the prevalence of smoking also was on the same level among boys (26.7%) and among girls (26.8 %); the lowest level was observed in Poland for both genders: 19.6% (boys) and 17.1% (girls);

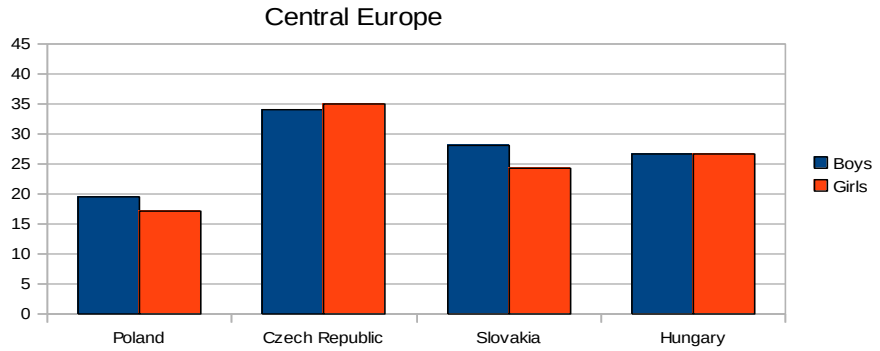


Fig. 5b. Central Europe: prevalence of cigarette smoking by gender. GYTS survey (Baska,T. 2009)

- **Eastern Europe**

  Among four countries of this region where the study was carried out, the highest prevalence of smoking among boys was observed in Belarus (31.2%) – and the lowest

in Moldova (23.0%); among girls the highest level was in the Russian Federation (23.9%) – and the lowest in Moldova (6.0%); then, in Moldova prevalence of smoking among boys was four times higher than among girls.

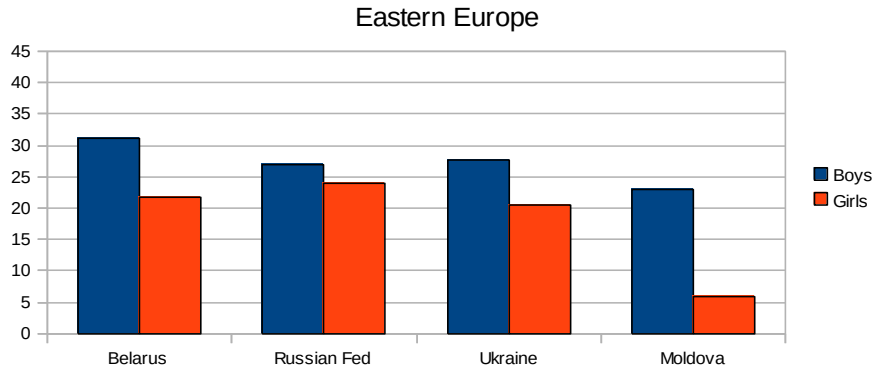


Fig. 5c. Eastern Europe: prevalence of cigarette smoking by gender. GYTS survey (Baska,T. 2009)

- **South-Eastern Europe**

  Among 14 countries the highest percentage of smoking boys was identified in Georgia (35.5%), and then in Bulgaria (26.0%), Slovenia (21.4%) and Croatia (19.9%). The lowest number of smoking boys was in Montenegro (6.0%), Macedonia (8.5%), Turkey (9.4%) and Armenia (10.3%). The greatest number of smoking girls was in Bulgaria (39.4%), and the smallest in Armenia (0.9%). In general, among both genders – the smallest number of smokers was in Montenegro and Macedonia. Among the results also the number proportions of smoking girls and boys draw attention i.e.: in Georgia the number of smoking boys exceeds the number of smoking girls significantly (about three times); in Bulgaria – an opposite tendency was observed i.e. there were about 1/3 more smoking girls than boys.

- **Caucasus**

  In two countries of the region – in Armenia and Georgia prevalence of smoking among adolescents differed significantly both among girls and boys. In Georgia almost three times more boys smoked (35.5%) than in Armenia (10.3%); also among girls a greater percentage of smoking girls was observed in Georgia (12.9 %) than in Armenia (0.9%). (Fig. 5d)

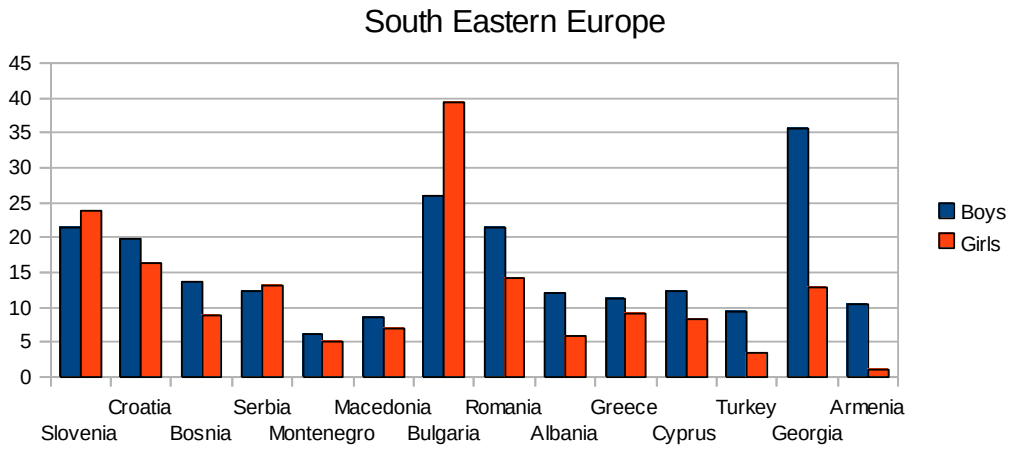


Fig. 5d. South Eastern Europe: prevalence of cigarette smoking by gender. GYTS (Baska,T. 2009)

When it comes to the countries participating in the euFAQT Project, the highest frequency of current smokers was observed among boys in Slovakia – 28.1% and girls in Bulgaria – 39.4% (Fig. 6).

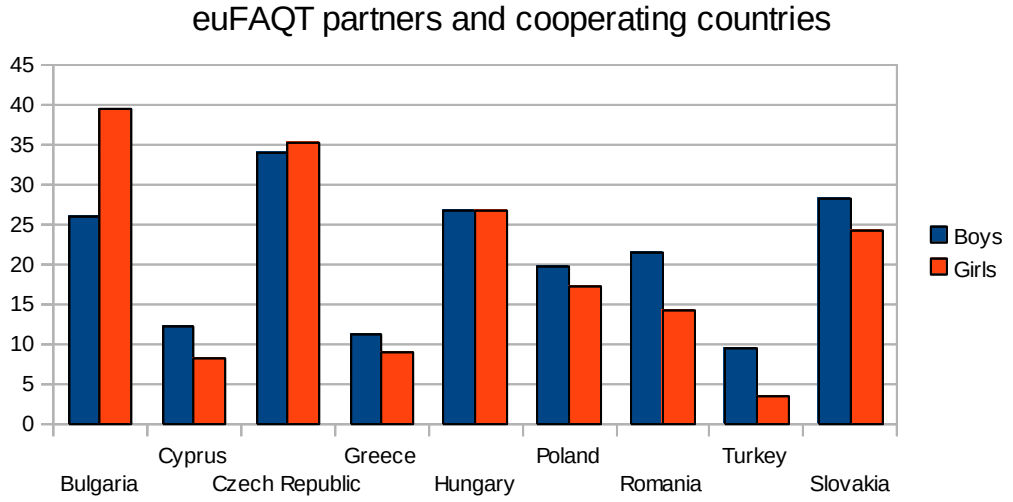


Fig. 6. Global Youth Tobacco Survey. 2002-2005. Percent of current smokers age 13-15. euFAQT countries and cooperating Cyprus, Czech Republic and Turkey. Baska et al.

The smallest percentage of current smokers was observed among teenagers in Greece: 11.3% (boys) and 9.0% (girls). Gender differences among current smokers were observed in Romania – 21.5% boys versus 14.3% girls. It was also observed that the prevalence of smoking among girls is on the increase e.g. in Bulgaria, where there are many more smoking girls (39.4%) than boys (26.0%). In Hungary the prevalence of current smoking boys

and girls was on the same level, i.e. 26.7% (6).

When it comes to the three countries cooperating in the euFAQT Project, i.e. Cyprus, the Czech Republic and Turkey – the same highest prevalence of smoking in both genders was in the Czech Republic. In the remaining two countries the prevalence of smoking was at a significantly lower level: in Cyprus 12.3 % (boys) and 8.2 % (girls); in Turkey 9.4% (boys) and 3.5% (girls). It is also necessary to notice, that the final result of euFAQT Project is to be the popularisation among various environments and organisations, decision-makers and policy-makers in order to encourage other European countries – including especially the other Mediterranean countries not taking part in the Project – to undertake actions aiming at reducing smoking and quitting smoking.

It seems interesting to compare of data on the prevalence of smoking from 2003 and 2005 in 4 Central Europe countries: the Czech Republic, Hungary, Poland and Slovakia (7)(6). For the Czech Republic and Slovakia it is possible to compare it against data from 2007 (8) (9).

Total prevalence of smoking (cigarettes) among adolescents was as follows:

- **Hungary**: 33.5% (2003) - 26.7% (2005)
- **Poland:** 23.3% (2003) - 18.4% (2005)
- **Slovakia**: 24.3% (2003) - 26.2% (2005) – 26.4% (2007)
- **the Czech Republic**: 34.9% (2003) - 34.5% (2005) – 31.1% (2007)

Comparing data from 2003 and 2005 on Hungary and Poland reduction of the prevalence of smoking among adolescents aged 13-15 was observed. With respect to the remaining two countries – Slovakia and the Czech Republic, basically, the percentage of smoking adolescents slightly decreased between 2003 and 2005 in Slovakia and then it remained stable. In the Czech Republic in2007 it reduced compared with the previous years.

To sum up, the study results delivered by GYTS show that the prevention and control of youth cigarette smoking in the European countries face many serious challenges:

- show disappearance of traditional gender differences, particularly on account of increased prevalence of tobacco use among girls

- the level of smoking among girls was higher than for adult females in 13 of the 25 countries, especially in the Baltic, Central, and Eastern regions
- findings can also be put into context with the descriptive model for cigarette smoking epidemic developed by Lopez et al. { Lopez…1994]. According to this model, most of the surveyed 25 European countries currently fall into its third or even second stage characterized by distinct predominance of men smoking and gradual growth of women smoking

The comprehensiveness o GYTS studies means that we receive not only data on the prevalence of smoking and age of smoking initiation but also other factors influencing tobacco use such as: susceptibility to smoke among never smokers which turned out to be a strong predictor of smoking initiation. Moreover, the following issues were studied: exposure among adolescents to SHS at home and in public places; offering "free" tobacco by tobacco company representatives; teaching in class about the health implications of smoking; teaching in class about the danger of smoking; discussion in class - why people their age smoke.

In literature of many researchers it is underlined that exposure to SHS can influence the behaviour of young people in terms of smoking initiation (10)(11)(12).

From the GYTS data, exposure to SHS at home was greater than 70% in all countries, except Latvia, Lithuania, the Czech Republic, Moldova, and Slovenia. Exposure in public places was greater than 70% in all countries; and parental smoking was greater than 45% in every country. These findings suggest that acceptance of smoking is high throughout these 25 European countries, especially in the South Western region where levels of smoking at home exceed levels in public places.

Exposure to SHS at home and in public has similar biological, psychological, and social effects on the community; however, very different enforcement challenges. Exposure outside the home can be effectively controlled by restrictive legislation, particularly the enforcement of smoking bans in public places. On the other hand, exposure to SHS at home can only be affected by the denormalization of tobacco use, through increasing the level of knowledge of the adverse effects of smoking and development of a social environment not tolerating

smoking around non-smokers. (The issue of SHS has been discussed in the Introduction, together with data from the newest sources, including WHO Reports, discussing the issue in many dimensions; in the context of health, smoking initiation among teenagers as well as from current recommendations - with indication for implementation in all the countries).

As the number of countries that have imposed bans on direct advertising has increased, the tobacco industry has increased "indirect advertising" methods such as: sponsoring sport events, putting their logos on promotional items, brand stretching, giving away free samples at events where young people concentrate, and sponsoring entertainment events (4).

GYTS data show also that between 10 and 30% of students in all 25 European countries had an object with a tobacco company logo on it and between 5 and 20% had been offered "free" cigarettes by a tobacco company representative. It should be stressed that countries that have ratified the WHO FCTC are required to "undertake a comprehensive ban on tobacco advertising, promotion and sponsorship within five years of ratification." Additionally, based on the GYTS data, despite of legislative restrictions of such forms of sales promotion of tobacco products in the most of European countries, a significant proportion of students reported these. Such discrepancy indicates that tobacco control legislation without proper enforcement, even looking progressive, has only limited effect on indirect tobacco advertisement.

The studies show that: less than 10% in Georgia but over 60% in the Eastern European countries admit having been taught about the dangers of tobacco use. While teaching levels of greater than 60% are positive for tobacco control, it is important that in each country the Ministry of Health and the Ministry of Education work together in order to meet the objectives of Article 12 of the WHO FCTC on education, communication, training and public awareness (4) .

The authors of GYTS data [Baska, 25 countries] quote the results of the studies review on the effect of school-based tobacco prevention programmes. It has shown that educational programmes will be most successful if they occur after other tobacco control policies are in place, such as, tax and price policies aimed at reducing tobacco consumption, 100%

smoke free environments in all public places and workplaces, and a comprehensive ban on all tobacco advertising, promotion and sponsorship (13).

The high level of smoking among girls suggests the need for tobacco control programmes that target girls specifically. Although recent data show a substantial decline in smoking among young women in the United States and Scandinavian countries, our results indicate a rather different picture in other parts of Europe. External validity of this finding is supported by another study reporting consistently with GYTS remarkable increased rate of tobacco use among adolescent girls (14).

For many years now, transnational tobacco companies have continued to identify women and girls as a major untapped market (15).

Studies have contributed to identifying the similarities and differences in tobacco use among boys and girls aged 13–15 years across countries in different regions – and especially in European countries. Although the reasons for the differences are not known, when explaining the reasons the following aspects should be taken into account: differences in youth culture, different level of tobacco control policy implementation. Undoubtedly, it is significant that in all these countries policy makers are encouraged to implement cost-effective strategies for tobacco control. Among adolescents, most effects are obtained by increasing taxes and prices, restricting advertising, sponsoring education media campaigns and also prevention and cessation programmes, subsidising treatment and others. But equally important is – in countries with a declining or stabilising daily smoking trend among adolescents – remaining alert. In those countries policy makers should face the challenge to keep the smoking prevalence declining or at least stable. This can be achieved by developing initiatives that are innovative and suitable for both boys and girls.

It should be stressed that all these findings regarding tobacco smoking among adolescents suggest that in the European countries, interventions shown to decrease tobacco use among youth (including increasing excise taxes, media campaigns, school programmes in conjunction with community interventions, and community interventions that decrease minors' access to tobacco) must be broad-based and have components directed toward prevention and cessation. If effective programmes are not developed and implemented soon

throughout European countries, future morbidity, and mortality attributed to tobacco will surely increase. These countries need to develop and implement comprehensive tobacco prevention and control programmes that include public education campaigns, cessation-assistance programmes, enforcement of existing tobacco restrictions, and related policy efforts to support tobacco control programmes.

Thanks to the use of GYTS methodology it is possible to compare results from 25 European countries (6) with data from other regions of the world and between countries on tobacco smoking among adolescents (16).

As mentioned before, GYTS uses a standardized methodology for constructing sampling frames, selecting schools and classes, preparing questionnaires, conducting field procedures, and processing data. GYTS standard sampling methodology uses a two-stage cluster sample design that produces samples of students in grades associated with students aged 13–15 years. Each sampling frame includes all schools (usually public and private) in a geographically defined area containing any of the identified grades.

The survey includes questions on tobacco use, knowledge and attitudes regarding tobacco, second-hand smoke (SHS) exposure, pro- and anti-tobacco media and advertising exposure, desire for cessation, access and availability to obtain tobacco products, and having been taught in school about the harmful effects of tobacco use.

This report includes GYTS data collected during 2000–2007 from 140 World Health Organization (WHO) member states, six territories (American Samoa, British Virgin Islands, Guam, Montserrat, Puerto Rico, and the U.S. Virgin Islands), two geographic regions (Gaza Strip and West Bank), one United Nations administered province (Kosovo), one special administrative region (Macau), and one Commonwealth (Northern Mariana Islands). The list of countries by region taking part in the research may be found on the website; the research excluded Australia and Canada (16).

When presenting GYTS participant countries a date has been taken into account - the year the data comes from; just as it has already been mentioned the GYTS studies are carried out in various countries but not at the same time and it should be remembered when analysing

the data. (16). Among 140 countries - 9.5% of students currently smoked cigarettes. The rate was highest in European Region (EUR) - 19.2% and lowest in East Mediterranean Region - 4.9%. (Fig. 7).

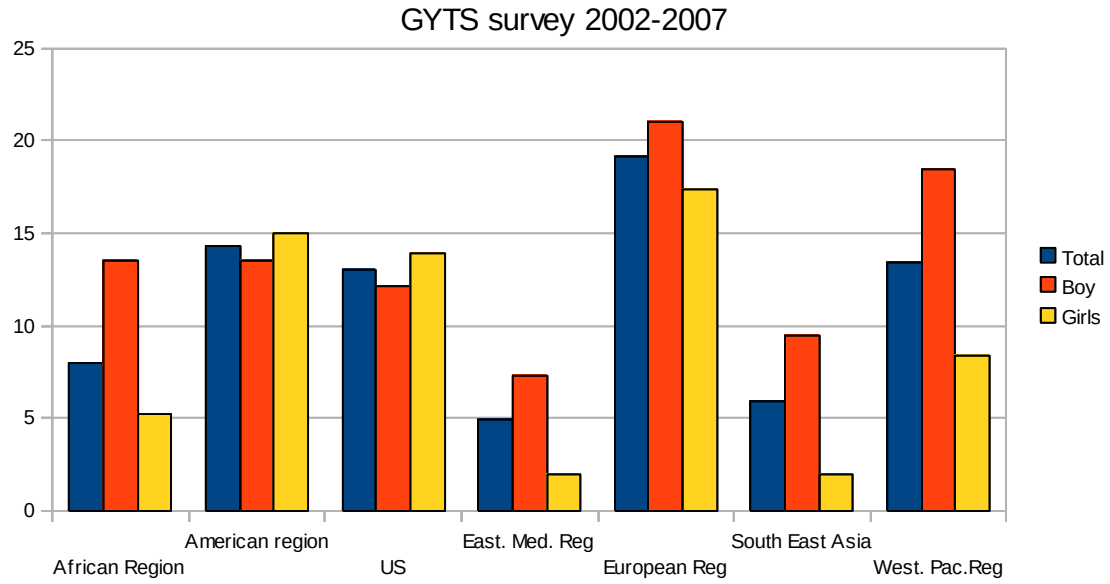


Fig. 7: Prevalence of tobacco use, by sex, WHO region. Global Youth Tobacco Survey, 2000-2007 (Global Youth Tobacco Surveillance, 200-2007. Morbidity and Mortality Weekly Report, January 25, 2008, vol. 57)

In this study the European Region covered not only countries taking part in the previously discussed studies (6) but also: Kosovo, Kazakhstan, Kyrgyzstan and Tajikistan - 30 European countries in all. In general, in the European Region countries the prevalence of smoking was higher in boys (21.0%) than in girls (17.4%).

When comparing the Regions it may be concluded that the prevalence of smoking is higher among boys in all regions apart from the American. The prevalence of tobacco use in the U.S.A. (2004), where current total percentage of smoking adolescents was: 13.0 %; among boys – 12.1% and was only slightly higher than among girl-smokers – 13.9%.

Bearing in mind the goals of this study also prevalence of tobacco use /percentage of currently smoked cigarettes by sex, and WHO European Region countries is presented. (Fig. 8)

Basically, the majority of European countries has already been characterised in the previously discussed studies (6). Additionally, based on the data from the 2000-2007 report it is possible to describe prevalence of smoking in such countries as: Kosovo, Kazakhstan, Kyrgyzstan and Tajikistan (16).

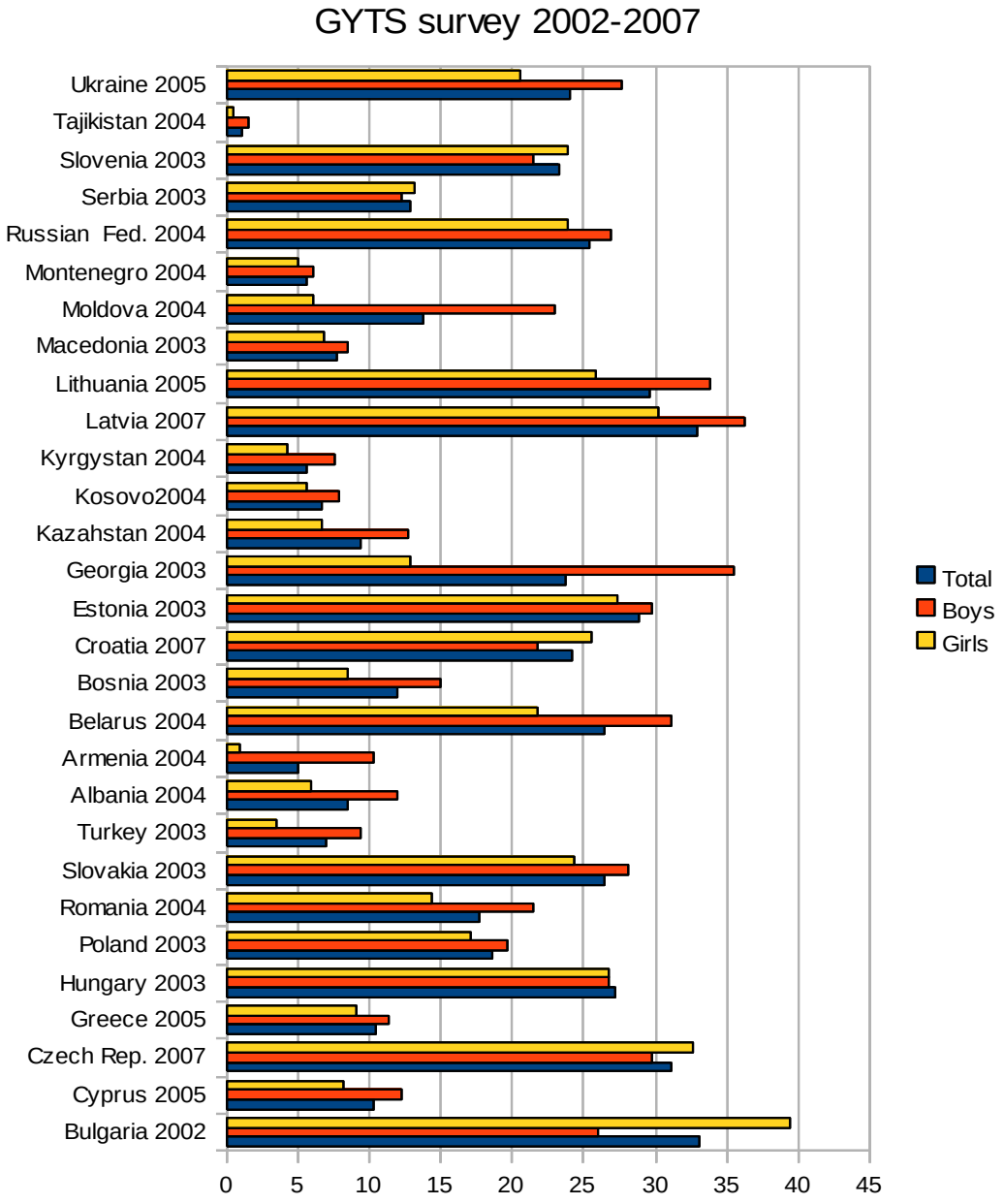


Fig. 8. Prevalence of tobacco use, by sex and WHO European region countries. Global Youth Tobacco Survey, 2000-2007 (Global Youth Tobacco Surveillance, 200-2007. Morbidity and Mortality Weekly Report, January 25, 2008, vol. 57).

Data from these four countries are from 2004; the lowest prevalence of smoking was observed in Tajikistan – 1.5% among boys and 0.5 % among girls – and it was the lowest one among

the WHO European Region countries. In the remaining three countries the lowest was in Kosovo (6.7%), with boys – 7.9% and girls 5.6%; in Kazakhstan 9.4 % smoking adolescents were identified - and gender difference were as follows: 12.7% of smoking boys and two times fewer smoking girls (6.6%). In Kyrgyzstan the total level of smoking adolescents was 5.5%, but among boys – 7.6% and among girls – 4.2%.

If we consider other factors influencing tobacco use, it has been concluded that among students who never smoked cigarettes, 19.1% indicated they were susceptible to initiate smoking during the next year. The rate was the highest in EUR (29.8%) and lowest in Western Pacific Region (13.4%).

Studies confirm that the susceptibility and has been shown to be a strong predictor of smoking initiation among adolescents. (Susceptibility index was developed by Pierce et al. (17). Moreover, youth defined as susceptible have been found to be two to four times more likely to initiate smoking than non-susceptible youth (17)(18).

Other data on remaining factors influencing tobacco use in various regions and countries are as follows:

Exposure to Second-hand Smoke

Overall, approximately four in 10 students (42.5%) were exposed to smoke in their home during the week preceding the survey. Among the six regions, exposure to SHS at home was the highest in the European Region (77.8%). In the US (2004) – the exposure was almost two times lower (41.1%). Approximately half (55.1%) of all adolescents were exposed to SHS in public places during the week preceding the survey. Exposure to SHS in public places was highest in the European Region (86.1%).

Indirect Pro-Tobacco Advertising

More than three quarters (78.3%) of students in all regions thought smoking should be banned in all public places Overall, 14.9% of students owned an object with a cigarette brand logo on it. The rate was the highest in the Africa Region and the European Region (18.0% and 17.8%, respectively). Overall, one in 10 students (10.0%) had been offered free cigarettes by a tobacco company representative. The rate was the highest in the Africa Region (12.2%).

Cessation

Overall, 68.7% of students who currently smoke cigarettes reported that they desired to stop smoking. The rate was highest in Pacific Region (80.7%); in the European Region it was 62.5%. In 2004 in the US, the percentage of students who currently smoke cigarettes and reported that they desired to stop smoking was 51.5%.

Access and Availability

Overall, five in 10 (46.7%) students who currently smoke cigarettes usually purchased their cigarettes in stores. The rate was the highest in the European Region (61.7%) but in 2004 in the US – 51.1%.

School Curriculum

Overall, more than half of the students (57.6%) reported having been taught in school about the dangers of tobacco during the preceding school year; in the European Region – 63.8%. In the US (2004) – 57.1% of adolescents reported about it.

The Authors of the GYTS Report (2002-2007) summarise the results as follows:

- The GYTS study uses a standardized methodology considering studies carried out in particular countries in the years 2000 – 2007. They provide information on the general picture of smoking problems among adolescents aged 13-15 all over the world.
- Overall, 9.5% of students currently smoked cigarettes. The rate was the highest in EUR (19.2%) Current cigarette smoking was >30% in Bulgaria, Chile (Santiago), Colombia (Bogota), Cook Islands, the Czech Republic, East Timor, Latvia, and Papua New Guinea.
- The proportion of never smokers susceptible to initiating smoking is similar among boys and girls in majority of places / sites / countries / regions (except West Pacific Region).
- Among adolescents currently using tobacco products other than cigarettes (e.g., pipes, water pipes, smokeless tobacco, and bidis), >30% was in Latvia, Lebanon, Micronesia, and the Northern Mariana Islands. Boys were significantly more likely than girls to use other tobacco products overall.
- Commonly no difference was observed in smoking prevalence between boys and girls; boys had higher rates than girls in 1/3 sites/ countries, and girls had higher rates than boys in 5 sites. Findings suggest that cigarette smoking is high among girls compared with rates observed among adult females in other studies.

- For decades the tobacco industry has targeted females and continues to expand this market. The tobacco industry targets women through advertisements showing smoking associated with independence, stylishness, weight control, sophistication, and power.
- Although smoking rates among adult females might be low compared with adult males, millions of women smoke. This might be contributing to a change in cultural traditions and social influences, making smoking among women and young girls more acceptable.
- The findings in this report also indicate that efforts are needed to reduce the impact of the factors that have the most influence on tobacco use among adolescents - exposure to SHS in public places and offering free cigarettes by a tobacco company representative, stop to banning smoking in public places, as well as possibility to buy cigarettes by adolescents.
- Learning about the harmful effects of smoking in school during the year preceding the survey was reported by about 60.0% of the surveyed.
- Countries that have ratified WHO FCTC are required to enact comprehensive legislation to restrict advertising, require a higher standard of health warnings on product packaging, and reduce SHS exposure by prohibiting smoking in public places, rise tobacco taxes to increase prices, reduce cigarette smuggling, and diversify agriculture away from tobacco.
- Strategies for reducing and controlling tobacco use include: development, implementation, and enforcing of comprehensive tobacco control programmes to improve the health of the population by encouraging smokers to quit, eliminating exposure to SHS, and discouraging non-smokers from initiating tobacco use.
- Comprehensive tobacco-control programmes generally include public education campaigns to counteract tobacco advertising, community-based programmes to reduce tobacco use, cessation assistance programmes, school-based programmes, enforcement of existing tobacco restrictions, monitoring and evaluation of the control program, and related policy efforts to support the program (e.g. increased excise taxes, chronic disease programmes targeting tobacco-related health problems, and environmental tobacco smoke restrictions).

As many documents, publications and reports show, effective tobacco control efforts targeting adolescents are not taken in all countries. Undoubtedly it is important that all countries' policy makers were encouraged to implement cost-effective strategies for reduction of tobacco use among adolescents by prevention and cessation programmes and other activities.

Nevertheless, the synergy between countries in passing tobacco-control laws, regulations and decrees is necessary (19)(3)(20)(21)(22)(23).

1.2 USA, Canada and Australia

These countries require to be discussed separately mainly due to the fact that they have achieved considerable success in reducing smoking among younger and older adolescents as well as among adults. These countries introduced early on tobacco control policies and strategies including: increased taxation, mass media campaigns, promotion of quit-lines, reducing opportunities to smoke through public smoking bans and reducing the attractiveness, promotion and availability of cigarettes.

Reduction of tobacco smoking in these countries is mainly connected with the implementation of recommendation - suggested byWHO and national authorities (institutions) - which turned out to be the most successful in tobacco use prevention. These recommendations caused: reduction in the number of smoking adolescents and their exposure to second-hand smoke (SHS) in public places. This is the reason why this part of the study contains selected examples of research, valuable from the point of view of this study goal, which indicates the aspect of successfulness of some enterprises.

The possibility to compare study results is sometimes limited because different methodologies are used or a study is not representative for a particular country or group age etc. This is also the reason why data between countries may not be comparable. However, we are able to compare using international surveys, such as: Health Behaviour in School-aged Children (HBSC) or Global Youth Tobacco Survey (GYTS).

Studies of US adolescent tobacco smoking have been conducted within the Youth Risk Behaviour Survey (YRBS) that compliments the US Health Behaviour in School-aged Children aged 13-15 (HBSC) – which is a part of international studies including over 40, mainly European, countries.

Other studies on American adolescents aged 13-15 were conducted within the frame of the Global Youth Tobacco Survey. Countries can use GYTS data to enhance their capacity to monitor tobacco use among youth; guide development, implementation, and evaluation

of their national tobacco prevention and control program; and allow comparison of tobacco-related data at the national, regional, and global levels.

As it has been described earlier, within the GYTS study (2000-2007) the prevalence of currently smoking adolescents in the US (2004), was 13.0%; among boys - 12.1% and it was only slightly lower than among girl smokers – 13.9%. (Fig.7). It was also slightly lower compared with prevalence of smoking for Region of the Americas (14.3%) both for boys (13.5%) and girls (15.0%). When it comes to comparison to the whole European Region (19.2%) the prevalence of smoking among the US adolescents was significantly lower both in relation to the total of the studied and in relation to gender. In general, there were fewer adolescent smokers in the US than in 18 of 29 countries of the European Region, i.e. in Albania, Armenia, Bosnia and Herzegovina, Cyprus, Greece, Kazakhstan, Kosovo, Kyrgyzstan, Macedonia, Montenegro, Serbia, Tajikistan, and Turkey (16).

In a report from other national studies called National Youth Tobacco Survey (NYTS) carried out in 2000 it was concluded that current tobacco use ranges from 15.1% among middle school students to 34.5% among high school students. The report summarises data from national surveys and state surveys. So, data surveys are used by health and education officials to improve national and state programmes to prevent and control youth tobacco use. Several states use the data in presentation to their state legislators to demonstrate the need for smoking cessation and prevention programs for youth (24).

Another National Youth Tobacco Survey (NYTS) carried out in 2004 among middle and high school students showed, that 15.9 % of boys and 15.3% of girls reported being current smokers (25). This data indicate a drop in the prevalence of smoking among high school children.

The US Centres for Disease Control and Prevention, analyses data from the national Youth Risk Behaviour Survey (YRBS every 2 years to evaluate trends in cigarette use among high school adolescents in the United States. The main goal of CDC activities is to prevent children from smoking or to delay the onset of smoking in order to increase the chance that children will not become addicted or, at the very least, to reduce the number of years

of exposure to cigarette smoke. The results of CDC's 2010 analysis of YRBS data from 1991 – 2009 showed that:

- The percentage of students who ever smoked cigarettes did not change from 1991 (70.1%) to 1999 (70.4%), declined to 58.4% in 2003, and then declined more gradually to 46.3% in 2009
- The percentage of students who reported current cigarette use increased from 27.5% in 1991 to 36.4% in 1997, declined to 21.9% in 2003, and declined more gradually to 19.5% in 2009
- The percentage of students who reported current frequent cigarette use increased from 12.7% in 1991 to 16.8% in 1999, declined to 9.7% in 2003, and then declined more gradually to 7.3% in 2009 (26)

The findings in this report show that for three measures of cigarette use (ever smoked cigarettes, current cigarette use, and current frequent cigarette use), rates among high school students began to decline in the late 1990s, but the rate of decline slowed during 2003–2009. These trends are consistent with trends for 30-day and daily cigarette use report from monitoring the Future survey (an ongoing national study of behaviours, attitudes, and values of 13-, 15-, and 17 – year old students), which also showed a decline starting in the late 1990s which is though becoming more gradual more recently (27).

As a result of the slow decline in youth smoking described in this report, the *Healthy People 2010* national health objective to reduce the prevalence of current cigarette use among high school students to ≤16% has not been met. It should also be pointed out that within the frame of "Healthy People: understanding and improving health" strategy developed by the US Department of Heath and Human Services The following goals regarding tobacco smoking reduction among children and adolescents in the US were developed; they were to be met by 2010:

- HP 2010 Objective 27-2: Reduce tobacco use by adolescents
- HP 2010 Objective 27-3: (developmental) Reduce the initiation of tobacco use among children and adolescents
- HP 2010 Objective 27-4: Increase the average age of first use of tobacco products by adolescent and young adults [www.health.gov./healthypeople]

The findings in this report also show that since 2003 the rate of decline in current cigarette use slowed or levelled off for all racial/ethnic and sex subgroups except black female students, for which no slowing or levelling off occurred in the rate of decline after 1999. Cigarette smoking rates reflect complex and interrelated individual, social, and environmental factors (28) (29).

More detailed research is needed to explain why current cigarette use during 2003–2009 declined more slowly among some racial/ethnic and sex subgroups of high school students but remained stable among others. The impact of tobacco advertising and promotion activities on youth smoking initiation has been documented previously (30).

The increase in current cigarette use among high school students during the early to mid-1990s observed in this and other surveys might have resulted from expanded tobacco company promotional efforts, including discounted prices on cigarette brands most often smoked by adolescents, depictions of tobacco use in movies, distribution of nontobacco products with company symbols (e.g. hats and T-shirts), and sponsorship of music concerts and other youth-focused events (29).

Reductions in advertising, promotions, and commercial availability of tobacco products should be combined with expanded counter-advertising mass media campaigns and implemented with other well-documented and effective strategies (e.g. higher prices for tobacco products through increases in excise taxes, tobacco free environments, programmes that promote changes in social norms, and comprehensive communitywide and school-based tobacco-use prevention policies (31)(32)(33).

The findings in this report are subject to the following limitation: these data apply only to youths who attend school and, therefore, are not representative of all persons in this age group. Nationwide, in 2007, of persons aged 16–17 years, approximately 4% were not enrolled in a high school program and had not completed high school (31).

It should be stressed that Tobacco Control Act - The Family Smoking Prevention and Tobacco Control Act enacted in 2009, provides new opportunities for broad scale reductions in tobacco use. (34) This statute gives the Food and Drug Administration (FDA)

additional authority to regulate the tobacco industry. The Act imposes specific marketing, labelling, and advertising requirements, and establishes restrictions on youth access and promotional practices that are particularly attractive to youth. The provisions of the Act offer opportunities for FDA to work as a partner in tobacco prevention and control (e.g. thorough collaboration with CDC and other federal and state agencies (33). As suggested by the Institute of Medicine, the regulation of tobacco products is an important component of a comprehensive national strategy that will complement and strengthen the impact of traditional, evidence-based interventions (28).

Below studies will be discussed that used primary data from the 2001 to 2002 US Health Behaviour in School-Aged Children (HBSC) - nationally representative survey, a cross-sectional and school-based survey designed to assess the prevalence of health behaviours and social context influences on young people's well-being (35). The target population for the U.S. HBSC survey was students aged 11-15 (grades 6 – 10).

This study examines the prevalence of youth cigarette smoking in relation to state level youth access and clean indoor air laws, i.e. it has been evaluated whether the prevalence of high school students smoking daily, living in states with strict regulations differs from those living in states with no or minimal restrictions.

Individual sociodemographic characteristics were considered including: gender (male/female), grade level (high school/middle school), parent education, family affluence (using FAS scale), and also race/ethnicity. Results showed that the majority of the sample (85%) never smoked, 10% had experimented, and 5% reported daily smoking. The proportion of experimenters and daily smokers increased as the school grade increased and was higher among boys than girls for both daily smoking (6% vs. 4%) and experimental smoking (11% vs. 9%).

Children whose parents had less than a high school education were more likely to be daily and experimental smokers (13% and 15% respectively) when compared with children whose parents were college graduates (4% and 8%). The proportion of daily smoking was higher

among youth from low-affluence families compared with those from high-affluence families (7% and 4%).

Authors of these studies conclude that the findings demonstrate that high school students living in states with less strict laws governing youth access and clean indoor air laws are more likely to be daily or experimental smokers than those who live in states with strict policies, after adjusting for sociodemographic variables and cigarette price. These findings support the role of contextual factors on adolescent smoking discussed how macro level policies affect cigarette smoking behaviour directly and indirectly (36).

This study presented evidence that indirect policies, such as the clean indoor air laws, may deter daily smoking among youth. According to the authors these findings could inform tobacco control advocates in promoting effective legislation to deter cigarette smoking among youth. Given the political, economic, and social costs associated with the maintenance of legislation, more emphasis is needed on enforcing tobacco control policies that are effective and on evaluating and identifying those that are not. This paper provides a better understanding of the effectiveness of state-level youth access and clean indoor air laws on the prevalence of cigarette smoking among school-aged children.

Consecutive studies - the US Youth Risk Behaviour Survey (YRBS) are representative for the whole country and for particular age. Moreover, they complement the US HBSC.
[www.euro.who.int/datapublications/Pulications/catalogue/20080616_1]

Comparison of YRBS data form the years 2005 – 2006 shows that the proportion of US students who smoke at the age of 11 (2%) is a little above the average compared to students in other HBSC countries (1%). However, as they get older, the rate of adoption of smoking in US students is lower, so by the age of 15 fewer US students smoke (8%) than students in any other HBSC country (average = 19%).

The Institute of Medicine and the CDC have implemented state-based, comprehensive tobacco control programmes that support cessation and need to be implemented at CDC-recommended funding levels to lower tobacco use among youth and adults. Current best

practices recommended that, to prevent youth from starting to smoke, states establish and sustain comprehensive tobacco control programmes that increase excise taxes, promote smoke-free air policies, and conduct media campaigns in conjunction with other community - based interventions, such as tobacco-use prevention programmes in schools that include school policy and education components (32).

Canada

The Health Behaviour in School-aged Children survey (HBSC) is an international study with European and North American countries taking part in it, including Canada. The presented results regarding smoking among Canadian teenagers aged 13-15 are based on data from HBSC study from the years from 1990 to 2002; they refer to daily smoking prevalence among adolescents in a selected age group, i.e. 14-15 years of age, coming from countries that took part in 4 survey periods: 1989–1990, 1993–1994, 1997–1998, and 2001–2002, namely European countries - Austria, Belgium, Finland, Hungary, Latvia, Norway, Poland, Sweden, Switzerland, the UK and Canada (1). (The prevalence of daily smoking among adolescents is presented in Fig.1).

The study showed differences in the prevalence of smoking by gender and also by countries. It was found that in 2002 daily smoking prevalence among Canadian adolescents was: 10.5% for boys and 9.0% for girls (the lowest one was among girls from Poland 8.9%). Comparison of data on daily smoking prevalence among boys in four studies showed that in Canada there was an initial increase in 1994 (15.0%) and 1998 (16.1%) and then - a significant decrease in the period from 2001 to 2002 (10.5%). Canada was qualified to a group of countries with the lowest daily smoking prevalence in 2002 – including Belgium, the UK, Eastern European countries (Poland and Latvia) and Sweden but it is worth noticing that Canada is the only country in this study where girls have a significantly lower smoking prevalence in 2002 (9.0%) compared with 1990 (13.2%).

Over the entire 16-year period, Canadians of both sexes either decreased their level of consumption or stopped smoking. However, different patterns of smoking practices have emerged throughout time: most of the overall decline happened after 1991, and the prevalence

of smoking among young Canadians did not change significantly when comparing 1985 to 1994/95, but from 1994/95 to 2001, only a small decline was observed (37).

It was proven that tobacco school policy may impact on the reduction of smoking among adolescents. Studies which took into account this influence were conducted among older adolescents aged 15-19 (grades 10-11) from different parts of Canada selected for pragmatic reasons since they had established infrastructure in place to conduct data collection, had central survey research centres (Health Canada 2004). It was found that 20.5% boys and 23.5% girls smoked cigarettes within the last 30 days. One part of study results considered school policy; it was found that it varied across schools and 7 schools had no school written policy. The following interpretation seems interesting: in schools with stronger tobacco policies that restrict the location of use, smokers perceived this factor as the one facilitating less frequent smoking as a result of - but not necessarily as a factor reducing the number of adolescents using tobacco. This may suggest that policies have impacted the frequency of smoking that takes place during the school day (38). It seems easier to change the school processes in order to implement school tobacco Policy, which will turn out successful in limiting smoking at the school premises than to change individual and family factors influencing adolescents smoking behaviour. Naturally, a combination of all the factors will be the most effective and using them in a particular sequence, while some of them make way for others.

Comparative studies on the prevalence of smoking were conducted within the frame of "Three Canadian Community Health Surveys (CCHS: Cycle 1.1,2000/01; Cycle 2.1, 2002/03; Cycle 3.1, 2004/05) (39).

Overall, an estimated 5.9 million people, or 22% of the population aged 12 and older, were smokers last year, down slightly from 23% in 2003 and 26% in 2000/2001. The prevalence of smoking has declined among both men and women, and across all age groups.

It is interesting to observe detailed comparisons of the prevalence of smoking not only between particular years of studies but also among age groups taking into account age and gender. The prevalence of smoking for the group age of 12-17 is presented below:

Year of the study:	2000/01	2003	2005
Both sexes:	13.8%	10.2%	8.1%
Boys:	12.5%	9.6%	7.2%
Girls:	15.2%	10.8%	9.0%

The sharpest decline was among young people aged 12 to 17, among whom it fell from 14% in 2000/2001 to 10% in 2003, and to 8% in 2005. The youth smoking rate has declined because increasing numbers of young people never start to smoke. In 2000/2001, 73% of youth reported that they had never smoked cigarettes. By 2005, the proportion had hit 82%.This finding is particularly relevant, because smokers generally start smoking before they are 18, and it is relatively rare for adults to take up smoking. As a result, there may be further declines in smoking rates among older age groups as today's youth move into adulthood. Smoking rates were still highest among both men and women in the age group 18 to 34, although they have fallen. One-third (33%) of men and 26% of women in this age group were current smokers last year (39). In a publication by other researchers based on the data from Three Canadian Community Health Surveys (CCHS: Cycle 1.1,2000/01; Cycle 2.1, 2002/03; Cycle 3.1, 2004/05) it was shown that the prevalence of smoking was higher in rural areas in all age groups: 12-19; 20-39, 40-59 and 60 and more – than in urban areas. The authors of the quoted publication suggest one of the possible interpretations of those results, namely that the differences may be associated with the fewer smoking restrictions in rural areas (40).

At the same time, studies from the European countries bring other results in respect to smoking prevalence in urban areas. It has been suggested that life in urban areas is more stressful than in rural areas, and this explains the higher smoking rate in urban areas.(40). Consequently, the reply to the question: "how many other stressful events (e.g. stress at work or home) might contribute to the urban/rural smoking difference" – is unknown and should remain a subject of following research. The study results have also been referred to the family education level and income level. It has been concluded that the relation between the prevalence of smoking and the level of education and income of a family was inversely proportional.

Summing up the above results it may be concluded that the smoking prevalence tends to:

- increase with the increasing rurality of residence
- be inversely proportional to education level
- be inversely proportional household income
- tobacco smokers in urban areas were those who reported the highest education and household income

Definitely, these findings illustrate that smoking prevalence should not be examined in isolation from other factors influencing it, such as: income and education level but also rural/urban areas of residence, and many others.

The authors of the discussed study conclude that *'one of the greatest hurdles to measuring smoking prevalence is that it is always changing and there is always a portion of the population that is in some stage of transition….", and* then - *"every person in every age group, sex, province, territory or region quits, starts, refuses to start or switches between daily and occasional smoking status for one reason or another, and will continue re-assessing or changing their behaviour over time'* (37).

As the study carried out in Canada shows - overall, cigarette consumption has been on the decline in Canada for the past 20 years, decreasing from 33.0% in 1987 to 19.0% in 2007. Results from the 2007 Canadian Tobacco Use Monitoring Survey conducted by Health Canada revealed that of the 5 million current smokers aged 15 years and older: 16.0 % were males, 14.0% were females, and 15.0% of both males and females were daily smokers.

Presently, the Canadian Federal Tobacco Control Strategy's new target is: to reduce smoking prevalence to 12.0% by 2011. As Clair Avison, Executive Director of the Canada's Joint Consortium on School Health (JCSH) said: *"We want all our children to grow healthy, fulfil their potential as learners and make smart choices throughout their lives*" (41).

As mentioned in the "Introduction" section, the USA, Canada and Australia, and only a few western European countries (the UK, Germany, Denmark and Finland) are in the 4th stage of tobacco epidemic (42).

Currently, Australia, Canada and the USA (and also Sweden) are nations that have achieved substantial declines in smoking prevalence over the past 50 years by implementing tobacco control polices. In Australia, smoking prevalence has declined in men since the 1950s and in women since the 1980s. In the early to mid 1990s this decline slowed, with smoking prevalence stalling at around 27%, thereby failing to meet the nation's 2000 public health target of only 20% of adults smoking (43).

Australia

After an increase in mass media campaigning as part of the National Tobacco Campaign in 1997, increases in the real cost of cigarettes and bans on smoking in restaurants, Australian smoking prevalence resumed its downward trend.(44)(45)(46). Between 1998 and 2004, the average annual decline in smoking prevalence increased to 0.66 percentage points; nearly double the annual decline between 1991 and 1995 (0.34%)(47). As a result of these declines continuing, only 17.9% of the Australian population aged 14 and over were daily or weekly smokers in 2007(48).

The Australian government is currently considering possible public health goals for the year 2020 in a number of key areas as part of a national preventive health strategy (49)(50). Because tobacco smoking is still Australia's leading preventable cause of disease burden, setting a target for smoking prevalence will be an important component of this strategy. It is not clear what would comprise a reasonable policy target for population smoking prevalence. One suggestion is that the long term goal to be achieved should be aimed at achieving a population smoking prevalence that is the same as that among the segment of the population that is the best-educated and most informed about the risks of smoking, such as medical practitioners (47).

Studies on changes in smoking prevalence among Australian adolescents were developed in 2008; the data used came from a triennial survey of secondary school students to examine trends in smoking prevalence among adolescents in different socio-economic status groups over the entire period 1987–2005 and across years reflecting the three different tobacco-

control phases in Australia. These triennial cross-sectional national studies were representative samples of secondary students aged 12–17 years (51).

This period (1987 – 2005) covers 3 distinct phases of tobacco-control activity in Australia. During the 1st phase (1984–1991), state-specific tobacco-control campaigns were developed and tobacco promotion restrictions were implemented at a state level. Across Australia, funding for tobacco-control reached a peak in 1989/1990. During the 2nd phase (1992–1996), funding levels dropped in 1993, and tobacco-control activity reduced considerably (51). In the 3rd phase (1997–2005), a coordinated national approach to tobacco control emerged and funding levels increased in 1998. This 3rd phase also saw an increase in legislation to: restrict smoking in public places, further restrict tobacco promotion, and to increase the tax levied on tobacco products (44).

Main results show that:

- In the 1st period (1987 – 1991) smoking prevalence decreased in all socio-economic status group from (total: 18.0%) because state-specific tobacco-control campaigns were developed and tobacco promotion restrictions were implemented at a state level, and funding for tobacco-control increased to a peak in 1989/1990
- In the 2nd period (1992–1996) smoking prevalence increased (total 20.0%), especially among 12- to 15-year-olds; the increase being the greatest among low socio-economic status group students. It was associated with lower funding levels in 1993, and tobacco-control activity reduced considerably
- In the 3rd period (1997–2005) smoking decreased (total: 9.0 %) and reductions were generally consistent across socio-economic status group students, which was connected with a coordinated national approach to tobacco control and funding levels increase in 1998, and high tobacco-control activity. In this phase changes in legislation were introduced: restriction of smoking in public places, further restriction of tobacco promotion, and increase of the tax levied on tobacco products

There are very important conclusions for the effective reduction of smoking among adolescents:

- Tobacco-control activity level was associated with a period of low tobacco-control funding (1992–1996)

- Well-funded, population-based tobacco control programmes can be effective in reducing smoking among students from all socio-economic status groups students

So, the above findings suggest that the tobacco-control policies adopted in the late 1990s and early 2000s were effective in reducing smoking among Australian secondary students from all socio-economic status groups students aged 12 -17.

Other studies show that smoking is not only the single largest cause of death in developed countries. It also contributes to the social gradient in mortality (52). It has been estimated that about 20% - 50% in male mortality has been attributed to smoking and it is connected with low socio-economic status (53)(54)(55)(56).

Reducing social inequalities in mortality necessitates reducing smoking, particularly among lower socio-economic groups. Population-based tobacco-control policies and programs have been adopted in many developed countries in order to reduce smoking. (57). Information about Australian quit-lines is available at www.guitnow.info.au] and quit-lines in Europe, North America and Canada can also be accessed via internet [http://www.naquitline.org/pdfs/NAQC_Quitline_06_by_pg.pdf].

As studies carried out in many regions and countries show smoking prevalence has generally decreased due to introduction in these regions of best practice in tobacco control. Undoubtedly, adolescents should be an important target group for tobacco control policy makers in countries all over the world in order to take care of their health and health of future generations (58)(59)(43)(60).

Studies carried out among adolescents aged 14-16 in 1996 – so in a period when in Australia smoking prevalence increased – showed that 15% of students were smoking each day. As it has already been mentioned in the previously discussed studies because schools have traditionally provided an emphasis on prevention the majority of young people do not smoke (51).

However, the prevalence of daily smoking increased from 15% to 31% across the last 3 years of secondary school – and it was a factor suggesting taking up indispensable activities i.e. cessation programs (studies carried out in Queensland, Australia) (61).

- The majority of adolescents (57.5%) reported that they had done something to influence a student not to smoke in the last 12 months, including 29% of the smokers
- Among those who were current smokers, 64% wanted to stop smoking and 55% had tried to stop in the past year
- Withdrawal symptoms were frequently reported among adolescent smokers and more males than females reported being stressed and depressed as a result of their efforts to quit. Intention to quit in the next year was associated with high confidence in ability to quit
- These issues deserve attention in prevention programs and the development of age appropriate cessation material for adolescents should have high priority

In the 1990s quitting smoking by adolescents was recognised as a neglected area of research despite the need for cessation programs for at-smoking risk youth (62)(63).

Moreover, some cessation programs have been tried in schools, but generally have been based on adult programs and have had low levels of success (64). Cessation programs used a variety of approaches: ranging from techniques used for smoking prevention such as health effects, social influence and advertising techniques, to use of monetary rewards and bio-feedback. However, in the middle of 1980s it was found that approaches which were effective in prevention programs were not necessarily effective in cessation programs (61).

In 1996 in Australia (also in New Zealand) the prevalence rates of daily smoking ranged from approximately 1% of 13 year-olds, 15% of 15 year-olds to 31% of 18 year-olds, yet little was known about the process or experiences of quitting among young people. However such information about experiences of quitting and attitudes to quitting is also needed (64).

The information about adolescent quit rates and their attitudes to quitting is indicative of this situation. Regarding adult smokers, approximately 10% of daily smokers quit for at least 1 month over a period of a year and an average of 6% among smokers followed

up after 12 months. Estimates for adolescents have indicated the rates are about 5%, i.e. half the adult rate (61).

Of course, there is a number of other issues concerning adolescent quitting raised by researchers that have an important impact on the development of cessation programs, such as: young people may be interested in quitting, There is information that a significant number of adolescents wants or would like to quit smoking or even that they have already tried to do so. Undoubtedly, the important information is the fact that the extent of withdrawal symptoms and level of dependence among adolescent smokers perceptions of addiction may lead to no further effort to quit. (It has not been widely studied till 1990s (61).

Furthermore, the present research pays also attention to the stages-of-change model of self-initiated smoking cessation among adolescents (65). Further studies have proven that the distribution across the stages for young adults is different to that of adults and more movement among stages is evident for younger people.

General conclusions regarding smoking among adolescents and recommendations regarding smoking cessation are the following:

- If among current smoking adolescents a significant part were not thinking about stopping, this suggests there is a large group of 'contemplators' who are not currently attempting to quit and that there is clearly a need for smoking cessation assistance for these young smokers
- Quit attempts were accompanied by efforts to cut down and more females had tried to quit
- If young people realized that the number of their peers who were trying or wanted to try quitting was greater than they thought, perhaps they would feel more motivated to quit
- If young people were made aware of the low rate of success and the high degree of difficulty associated with quitting, they might be more likely to avoid regular smoking in the first instance. These issues emerge as important components for cessation programs for young smokers

- Confidence in personal ability to quit in the future was found to be enhanced for those young people who found it relatively easy to stay smoke-free; and for those who have been able to quit for relatively long periods (1 month or more)
- Intention to quit in the next year was associated with higher confidence. Where young smokers are unable to remain permanently smoke-free, perhaps they should be encouraged to set a goal of at least 1 month smoke-free and continue to build upon that goal
- For those smokers who found it difficult to stop, attempting to quit could have reduced their self efficacy and their willingness to make future attempts. This group tends to suffer more from nicotine withdrawal symptoms, quit for shorter periods, have decreased confidence in their ability to quit, and have less experience in trying to quit. This group will probably require a high level of support when attempting to quit and require special attention being given to issues such as the provision of detailed information of the quitting process, the difficulties to be expected when quitting, acceptable coping mechanisms, and emphasizing the benefits of quitting. This could make the process of quitting easier and contribute to enhanced self-efficacy and increased intention to stop smoking in the future
- While most communities offer adults a number of opportunities to quit smoking, young people, especially at school age, are not offered the same opportunities
- Research findings indicate that many young smokers have tried to quit smoking on their own and such attitudes should be admired and their needs should be accepted in order to quit smoking
- While young people experience similar withdrawal symptoms as those identified for adults, tailored, age appropriate programs which accommodate the needs of young smokers should be developed

In practical terms, it may be useful to identify young smokers who want to try to quit. By asking a few simple questions, those requiring support could be identified:

- Have you tried to quit before?
- How difficult or easy did you find it?
- Did you experience any withdrawal symptoms, such as craving a cigarette, feeling stressed, etc.
- How long did you quit for? (each time)

- How confident do you feel about being successful at quitting this time?

While most communities offer adults a number of opportunities to quit smoking, separate programmes should be aimed at young people, especially of school age. They should be tailor made, attractive and motivating to initiation of change and keeping the new, pro-health lifestyle (61).

The previously discussed study results (based on publications) and the conclusions drawn referred both to the prevalence of smoking among adolescents and to the changes observed throughout the last decades. There have also been references and attempts at summaries regarding factors which might influence the reductions in smoking among teenagers. The contemporary situation of Australia, which may be called a leader when it comes to the reduction of the number of smokers among young people, in a way imposes specification of scenarios regarding the prevalence of smoking among adults and adolescents.

Subsequent studies have been dedicated to predicting the future prevalence of cigarette smoking in Australia, which have been carried out based on modelling (66).
Results show (46) that due to lack of recent data on smoking prevalence among Australian medical practitioners, the figure of 10% was to be used, the level suggested as a policy goal for the USA in a recent US Institute of Medicine report on the future of tobacco control (67)(46), searched for response to the following questions:

- "How much lower is the Australia smoking prevalence likely to go with a continuation of current rates of smoking cessation and initiation?"
- "If the best estimate for this prevalence is greater than 10%, then what smoking cessation and initiation rates will we need to achieve to reduce smoking prevalence to less than 10% of adults by 2020?"(46)

Two models have been tested in accordance with the specified methodology:

- A base model was fitted to observed data on smoking prevalence in Australia over recent decades (1980 – 2007)
- A forecasting model was derived that used the results of the base model to make predictions about future smoking prevalence under various assumptions about future rates of smoking initiation and cessation

Based on the models various scenarios on smoking prevalence in the Australian population aged 20+ observed in national surveys and estimated with the base model were developed. Moreover, a dynamic forecasting model to estimate future smoking prevalence in the Australian population based on a continuation of current trends in smoking uptake and cessation was presented in this paper (46).

According to Gartner, Barendregt and Hall (2010) model of reducing the future prevalence of cigarette smoking in Australia also suggests that it will take nearly 30 years for a doubling of the current decline in initiation rate to reach the same smoking prevalence achieved by a doubling of the current cessation rate. Therefore, in addition to lowering rates of initiation, strategies are needed to increase cessation in current smokers (46).

This situation is also likely to apply to other countries in later stages of the cigarette epidemic, such as the USA, Canada and the UK. (42). Examples of such strategies include: increased taxation, mass media campaigns, promotion of quit-lines, reducing opportunities to smoke through public smoking bans and reducing the attractiveness, promotion and availability of cigarettes (e.g. by removing them from supermarkets and convenience stores and restricting their sale to specially licensed outlets). A more controversial option that could be considered is to make less harmful forms of nicotine and smokeless tobacco products more readily available and taxing them at a lower rate than smoked tobacco. This option may reduce tobacco smoking and tobacco-related harm in Australia without eliminating all forms of tobacco use (46).

In the USA similar results have been reported in a study modelling the projected smoking prevalence. This study estimated that if the 1981–1993 cessation rates and smoking initiation rate of 25% continued, the US smoking prevalence would stabilise at 15% to 16% by 2050 (68).

Similar modelling of smoking prevalence in the UK showed that to reach a target goal of 12% smoking prevalence by 2020 would require a sustained combination of doubling the cessation rate and halving the initiation rates from the year 2000 onward (66).

"The status quo scenario" is also possible in which smoking initiation rates remain at 2007 levels; and it may be overly pessimistic. Hence, our findings have implications for other countries at a similar stage of the cigarette epidemic, as described by Lopez et al. (42).

And one more remark on smoking initiation: in contrast to the USA - in Australia it has declined steadily since the early 1980s. In 2007, only 8.6% of 14–19 year olds reported that they were current daily or weekly smokers compared to 12.3% in 2004, which makes Australia an *"international leader in reducing prevalence"*(47)(69).This decline in smoking initiation was also seen in the Australian Secondary Students Alcohol and Drug Surveys which reported a substantial decrease in smoking prevalence among secondary school students between 2002 and 2005 (46).However, even if initiation continues to decline, smoking prevalence in the adult population will not drop below 10% until 2029 unless rates of cessation increase. A policy goal of 10% smoking prevalence in the Australian adult population by 2020 requires a doubling of the cessation rate observed between 2001 and 2007.

Australia's smoking prevalence will continue to fall while current rates of initiation and cessation are maintained. But a continuation of current smoking cessation and initiation patterns will still see around 14% of Australian adults smoking in 2020. Smoking cessation rates will need to double if Australian health policy makers are to reduce smoking prevalence to 10% by 2020. The Australian government is currently setting future targets for population smoking prevalence, but it is not clear what would comprise a reasonable policy target. According to Gartner, Barendregt and Hall (2010) – *"achieving this ambitious goal will require an intensification of current restrictions on smoked tobacco sales and increased assistance to smokers who wish to quit"*(46).

In the latest WHO Report (2010): *"tobacco use is the single largest preventable cause of death and chronic disease in the world today, causing 5.4 million deaths in 2005. It is a risk factor for six of the eight leading causes of death, including heart disease and several cancers and lung diseases. Tobacco use disproportionately affects males and lower socioeconomic groups in developed and developing countries, and is increasingly prevalent in poorer parts of the world"* (70).

Moreover, in developed countries, multiple indices of social disadvantage contribute independently to smoking status. Poor households in low-income countries carry a particular heavy burden from tobacco use, with significant health, educational, housing and economic opportunity costs (70).

At both stages, vulnerabilities such as social, psychological and physical health issues and disproportionate levels of exposure due to family and peer tobacco use, targeted advertising, social norms permissive to tobacco and less access to affordable cessation services often tip the balance towards tobacco use take-up and continuation. Data from the World Health Survey 2003 indicate that tobacco smoking is most strongly related to household permanent income or wealth (71).

Poorest individuals in the lowest-income countries appear to exhibit a markedly higher level of tobacco smoking relative to their richer compatriots. The inequity tends to become less stark with the level of development of countries. The World Health Survey data also show that poorer groups in low-income countries seem to smoke more tobacco compared to higher-income. The important conclusion is that poor households in low-income countries are likely to be carrying a heavier burden of the tobacco epidemic because tobacco smoking is more prevalent among them and they also consume greater quantities of tobacco compared to higher-income groups (70).

The relationship between tobacco use and poverty or, more broadly, socioeconomic status is compounded by factors such as sex and age. Sex and age frequently compound the impact of socioeconomic disadvantage on tobacco use. For example, in several countries in Europe, youth combines with sex and socioeconomic inequalities to make smoking most common amongst the poorest of young women, which may be expressed by the following equation: **"youth" x "female gender" x "socioeconomic inequalities" = smoking tobacco makes most common** (70).

Also in a report (72), there is the evidence on some behavioural risk factors, for which comparable data on social patterning are available from many European countries. Smoking is likely to be an important contributor to health inequalities in many European countries, because the prevalence of smoking tends to be higher in lower socioeconomic groups,

particularly among men. There are important differences between countries, however, in terms of these inequalities.

In many European countries, particularly in the North of Western Europe, cigarette smoking is the first determinant of health problems. This is not only because of its role in lung cancer and some other specific diseases, for which smoking is the main cause. It is also because of its role in (premature) mortality in general, less-than-'good' self-assessed health and disability, for which smoking is an important contributory factor. The prevalence of smoking differs strongly between socio-economic groups in many European countries - so, one can safely assume that it plays an important role in generating health inequalities.

The report also includes references to the smoking epidemic model constructed by Lopez, (1994)(42). "*The earlier and stronger decline of smoking in higher socio-economic groups can also be seen as an outcome of the success and failure of these activities, and the future course of this 'epidemic' is likely to be strongly determined by collective action. Incorporating a socio-economic dimension in policies to tackle smoking is a prerequisite for reducing (or preventing) the gap in smoking between socio-economic groups"* (70).

This analysis of tobacco use within the priority public health conditions framework is derived primarily from research conducted in developed countries, where there is widespread understanding of the dangers of tobacco use, making it instructive to consider why some groups still use tobacco. Whenever available, research from developing countries is used to augment the evidence from developed countries (70).

This report gives a synthetic picture of smoking – as a public health priority and in relation to taking actions aiming to reduce smoking among adolescents and young people indicating weak points relating to various factors connected with smoking as well as smoking cessation. It is a kind of summary in full taken from (70).

There are two stages of life where inequities in vulnerability and exposure to tobacco use are most pronounced, and where intervention may be beneficial:

- in adolescence, when young people begin smoking and risk nicotine addiction

- and in adulthood, especially young adulthood, when they try to quit smoking

The pathways to differential tobacco use at these two life stages are complicated, with many intersecting variables. While the interrelationships among these variables have not been fully investigated, what is currently known is summarized in the following:

Differential vulnerability

Adolescence is a vulnerable period for initiation into tobacco use. Smoking uptake is strongly associated with family background and socioeconomic and educational status, with adolescents from lower socioeconomic backgrounds being mostly at risk. Low parental income and low parental educational status are independently associated with higher adolescent smoking rates, and the association becomes stronger as socioeconomic status declines.

Other factors affecting young people's likelihood to take up tobacco use include

- Ability to resist peer pressure

The ability to resist peer pressure and tobacco advertising is related to social competence and self-confidence, skills less common among disadvantaged young people.

- Adequate awareness of tobacco's harms

Disadvantaged young people may have insufficient knowledge and awareness of the adverse impact of tobacco use

- Scepticism about smoking prevention

People from lower socioeconomic groups, particularly adolescents, are less receptive to health education messages and may underestimate the risks of smoking.

- Prevalence of social problems

Psychosocial stresses in the lives of less advantaged adolescents, including problems with their families and schooling, increase the risk of smoking.

- Co-occurring psychological or psychiatric problems

Adolescents experiencing psychiatric and behavioural problems, or feeling pessimistic about their lives, are more likely to smoke.

- School performance

Poor school performance and skipping school are related to increased susceptibility to smoking, while good academic performance confers resilience.

Differential exposure

These vulnerabilities are compounded by the differential exposure of disadvantaged young people to pressures within the physical and social environment that encourages the uptake of tobacco use and discourage successful quitting.

These include:

- Preponderance of adults who model tobacco use

Disadvantaged young people are more likely to have parents who smoke and who have a more permissive attitude to tobacco. Among developing countries that have conducted the Global Youth Tobacco Survey, parental smoking is one of the most frequently identified risk factors for tobacco use by young people.

- Prevalence of peer smoking

Studies indicate that smoking by peers is a very strong predictor of adolescent smoking, and is itself influenced by parental smoking.

- Availability of tobacco products

In poorer neighbourhoods, there are often more tobacco outlets (for example convenience stores) that advertise cigarettes at point of sale. In several developing countries, single-stick sales of cigarettes make tobacco more affordable. Even in countries that ban the sale of tobacco to minors, poor or inconsistent enforcement make tobacco products accessible to young people.

- Targeted advertising and promotion

Tobacco advertising targets young people. Analysis of tobacco company documents indicates the industry's awareness that a key part of their market in the developed world are young people of lower socioeconomic status. Advertising has been particularly successful among young adolescent girls with less education and from lower socioeconomic backgrounds, with smoking often used as a symbol of the emancipation of women, including in developing countries. Tobacco advertising can be very subtle, such as through the promotion of smoking in films and television shows. Research conducted within developing countries consistently identifies exposure to advertising and smoking in movies and on television as independent predictors of smoking by young people.

- Paucity of environments supportive of being tobacco free

Qualitative studies in deprived areas, whether in developed or developing countries, find that tobacco consumption is a socially and culturally ingrained behaviour, arising out of a poorly resourced and stressful environment, social reinforcement of smoking and limited opportunity for other forms of respite. The relative lack of smoke-free places reinforces tobacco use as normative.

Tobacco use cessation or continuation during adulthood

Differential vulnerability

Another key difference between advantaged and less advantaged groups is the likelihood of continuing tobacco use during adulthood. Studies from the developed world demonstrate that in young adulthood, less educated smokers are more likely to fail at quitting and to become more addicted. Population groups suffering multiple disadvantages, such as low education, income and unemployment, have the most difficulty in quitting, though they are just as likely as those from higher socioeconomic groups to attempt quitting. Evidence suggests that smoking cessation follows the same patterns as initiation: people start and stop smoking in social clusters, and clusters of clusters. So, while quitting can have a ripple effect prompting an entire social network to break the habit, those clusters with no social ties to the earliest quitters risk being left out of any positive spill-over effects.

Factors making disadvantaged groups more vulnerable to continuing smoking and less likely to give up include

- Higher levels of nicotine addiction

Disadvantaged individuals are likely to take up smoking earlier and smoke more cigarettes per day than their more advantaged peers; they therefore tend to be more addicted, making it harder for them to quit.

- Low self-efficacy and greater perceived barriers to quitting

Lower socioeconomic groups tend to be less confident in their ability to quit and face more perceived barriers to quitting, including the challenges of coping in stressful environments, social isolation and a perception of smoking as an affordable pleasure with minimal risks.

- Higher levels of stress

For those who have greater life problems to deal with on a daily basis, including unemployment and poverty, smoking may be seen as a coping mechanism associated with pleasure and reduction of stress.

- Co-occurring health and other problems

Smoking is associated with other problems such as other drug abuse, depression, psychiatric difficulties, homelessness and social isolation or exclusion.

- Working conditions

Exposure to hazards and risks at work, job monotony and limited control over one's employment contribute to greater occupational stress for disadvantaged workers, for whom smoking may reduce boredom, raise alertness and increase friendships with work colleagues.

- Differential exposure

Adults, like adolescents, are exposed to factors making it more likely that they will continue to smoke and have difficulty giving up smoking.

The factors contributing to differential exposure include

- Social norms permissive to smoking

In less advantaged neighbourhoods there is more likely to be a culture of smoking, with high levels of addiction among an individual's family and friends. Workplace norms may also be conducive to the continuation of smoking. In these settings, institutional cues that support and reinforce tobacco-free lifestyles are lacking, while social acceptability for smoking is high. Poor enforcement of existing tobacco control laws in disadvantaged neighbourhoods also contributes to this situation.

- Lack of social and instrumental support to quit

Those from more disadvantaged backgrounds are less likely to have supportive social networks, particularly at home and work, if they want to stop smoking, due to the lack of a culture of quitting and reduced awareness of methods available to help smoking cessation.

- Availability of cigarettes, and advertising where allowed (see above)
- Barriers to affordable cessation services

In many countries, nicotine replacement therapy is expensive and is not available over the counter. Other services, such as cessation counselling or telephone help-lines, are not available at all or are rare. Even if available, cessation services may be difficult for

disadvantaged tobacco users to access, due to cost, distant location or procedural barriers, for example a requirement for proof of residence, automatically excluding tobacco users who live in slums and informal settlements (and who therefore have no official address).

Tobacco use as a priority public health condition demonstrates the vital importance of using a social determinants perspective in designing an effective framework for action. The *World Health Report* (2002), calculating the cost-effectiveness of various tobacco control measures for 14 sub-regions of the world, found that four interventions requiring government action were very cost effective in all sub-regions: taxation, smoke-free indoor public places, bans on advertising and information dissemination. Taxation was found to be the most cost-effective intervention everywhere, followed by comprehensive bans on advertising. A recent study found that 5.5 million deaths could be averted by the implementation of the four elements of the WHO Framework Convention on Tobacco Control alone (price increase, health warnings, media campaigns and advertising bans).Two recently published studies made a systematic review of population-level tobacco control interventions and their impact on social inequities in smoking. In one study results showed that measures such as smoking restrictions in schools, restrictions on sales to minors and tobacco price increases had the potential to benefit disadvantaged groups and contribute to the reduction of health inequities (73).

Other studies concluded that there was preliminary evidence that increases in the price of tobacco may have the potential to reduce smoking-related health inequities (74).

It has been estimated that nearly 2/3 (two thirds) of the world's smokers live in 10 countries: China, India, Indonesia, the Russian Federation, the United States Of America, Japan, Brazil, Bangladesh, Germany and Turkey, the group including young people - in adolescence or young adults (21).

In Europe there are signals that the situation is improving: smoking is becoming less and less socially acceptable; more and more European Countries are adopting smoke free legislation protecting their citizens from smoke in public places, public transport and in the workplace. European Union tobacco control policy rests on three pillars: legislation, campaigning and international treaties (research / scientific studies) (75).

Today in the European Union the key legislation in the field of tobacco control comes from two laws - the Directive on Tobacco Products and the Directive on Tobacco Advertising. The European Commission meets regularly with representatives from the EU Members states to ensure the legislation is implemented effectively and takes account of new developments.

As Andrzej Ryś, Director for Public Health and Risk Assessment, European Commission, said: *"Tobacco control is essential to improving public health….", "This is why we develop legislation, participate in international tobacco control initiatives and fund large scale prevention campaigns. But we still have a lot of work to do….", "each step towards reducing tobacco use is a huge gain for the health and quality of life of all citizens."* (70).

LITERATURE

(1) Hublet A, De Bacquer D, Valimaa R, Godeau E, Schmid H, Rahav G, et al. Smoking trends among adolescents from 1990 to 2002 in ten European countries and Canada. BMC Public Health, 2006,10;6:280.

(2) van der Wilk EA, Jansen J. Lifestyle-related risks: are trends in Europe converging? Public Health 2005 Jan;119(1):55-66.

(3) Joosens L. Effective Tobacco Control Policies is 28 European countries. Report of the European Network of Smoking Prevention (ENSP). 2004.

(4) WHo Framework Convention on Tobacco Control FCTC. Available at: http://www.who.int/fctc/en/.

(5) The 2007 ESPAD Report. Substance use Among Students in 35 European Countries. 2009.

(6) Baska T, Warren CW, Baskova M, Jones NR. Prevalence of youth cigarette smoking and selected social factors in 25 European countries: findings from the Global Youth Tobacco Survey. Int.J.Public.Health. 2009;54(6):439-445.

(7) Baska T, Sovinova H, Nemeth A, Przewozniak K, Warren CW, Kavcova E, et al. Findings from the Global Youth Tobacco Survey (GYTS) in Czech Republic, Hungary, Poland and Slovakia--smoking initiation, prevalence of tobacco use and cessation. Soz.Praventivmed. 2006;51(2):110-116.

(8) Sovinova H, Csemy L, Warren CW, Lee J, Lea V. Changes in tobacco use among 13-15-year-olds in the Czech Republic--2002 and 2007. Cent.Eur.J.Public Health 2008 Dec;16(4):199-204.

(9) Baska T, Warren CW, Hudeckova H, Ochaba R, Stastny P, Lea V, et al. The role of family background on cigarette smoking among adolescent school children in Slovakia: findings from the 2007 Slovakia Global Youth Tobacco Survey. Int.J.Public.Health. 2010 Jul 6.

(10) Andersen MR, Leroux BG, Marek PM, Peterson AV,Jr, Kealey KA, Bricker J, et al. Mothers' attitudes and concerns about their children smoking: do they influence kids? Prev.Med. 2002 Feb;34(2):198-206.
(11) Ellickson PL, Tucker JS, Klein DJ. Sex differences in predictors of adolescent smoking cessation. Health Psychology 2001;20(3):186-195.
(12) Schneider S, Mohnen SM, Pust S. The average age of smoking onset in Germany--trends and correlates. Int.J.Public.Health. 2008;53(3):160-164.
(13) Wiehe SE, Garrison MM, Christakis DA, Ebel BE, Rivara FP. A systematic review of school-based smoking prevention trials with long-term follow-up. J.Adolesc.Health 2005 Mar;36(3):162-169.
(14) Arvanitidou M, Tirodimos I, Kyriakidis I, Tsinaslanidou Z, Seretopoulos D, Dardavessis T. Cigarette smoking among adolescents in Thessaloniki, Greece. 2008; . Accessed 4, 53.
(15) Women and the tobacco epidemic: challenges for the 21st century. 2001.
(16) Centers for Disease Control and Prevention (CDC). Global Youth Tobacco Surveillance, 2000–2007. Morbidity and Mortality Weekly Report, 2008 2008;57(SS-1).
(17) Pierce JP, Choi WS, Gilpin EA, Farkas AJ, Merritt RK. Validation of susceptibility as a predictor of which adolescents take up smoking in the United States. Health Psychol. 1996 Sep;15(5):355-361.
(18) Prokhorov AV, de Moor CA, Hudmon KS, Hu S, Kelder SH, Gritz ER. Predicting initiation of smoking in adolescents: evidence for integrating the stages of change and susceptibility to smoking constructs. Addict.Behav. 2002 Sep-Oct;27(5):697-712.
(19) WHO European Partnership Project to Reduce Tobacco Dependence. WHO Evidence Based Recommendations on the Treatment of Tobacco Dependence. 2001.
(20) Tobacco or health in the European Union. Past, Present and Future. 2004:56-57.
(21) WHO Report on the Global Tobacco Epidemic. The MPOWER package. 2008.
(22) WHO Report On The Global Tobacco Epidemic, 2009. Implementing smoke-free environments. 2009.
(23) Glynn T, Seffrin JR, Brawley OW, Grey N, Ross H. The globalization of tobacco use: 21 challenges for the 21st century. CA Cancer.J.Clin. 2010 Jan-Feb;60(1):50-61.
(24) Youth tobacco surveillance--United States, 2000. MMWR CDC Surveill.Summ. 2001 Nov 2;50(4):1-84.
(25) Rudatsikira E, Muula AS, Siziya S. Current cigarette smoking among in-school American youth: results from the 2004 National Youth Tobacco Survey. Int.J.Equity Health. 2009 Apr 3;8:10.
(26) Centers for Disease Control and Prevention (CDC). Morbidity and Mortality Weekly Report, July 9 2010 2010;59(26).
(27) Johnston L, O'Malley P, Bachman J, Schulenberg J. Trends in prevalence of use of cigarettes in grades 8, 10, and 12. Table 1. 2009.
(28) Institute of Medicine. Ending the tobacco problem: a blueprint for the nation. 2007.
(29) Nelson DE, FAU - Mowery P, Mowery P, FAU - Asman K, Asman K, FAU - Pederson LL, et al. Long-term trends in adolescent and young adult smoking in the United States: metapatterns and implications. - Am J Public Health.2008 May;98(5):905-15.Epub 2008 Apr 1. (1541-0048 begin_of_the_skype_highlighting 1541-0048 end_of_the_skype_highlighting (Electronic); 0090-0036 (Linking).
(30) National Cancer Institute. The role of the media in promoting and reducing tobacco use. Tobacco control monograph no. 19. Bethesda, MD. 2008.

(31) Zaza S, Briss PA, Harris KW, (eds.). Tobacco. In: The guide to community preventive services: what works to promote health? 2005.

(32) CDC. Best practices for comprehensive tobacco control programs—2007. 2007.

(33) CDC.CDC grand rounds: current opportunities in tobacco control. MMWR 2010;59:487-492.

(34) The Family Smoking Prevention and Tobacco Control Act, L. No.111-31,123Start 1776(2009).

(35) Currie CE, Samdal O, Boyce , W. , & Smith. Health Behaviour in School-aged Children: A WHO Cross-National Study (HBSC), Research Protocol for the 2001/2002. 2001.

(36) Chaloupka FJ. Contextual factors and youth tobacco use: Policy linkages. Addiction 2003(Suppl. 1):147-149.

(37) Narcisse MR, Dedobbeleer N, Contandriopoulos AP, Ciampi A. Understanding the social patterning of smoking practices: a dynamic typology. Sociology of Health & Illness 2009;31(4):584.

(38) Sabiston C, Lovato CY, Ahmed R, Pullman AW, Hadd V, Campbell HS, et al. School Smoking Policy Characteristics and Individual Perceptions of the School Tobacco Context: Are They Linked to Students'Smoking Status? J Youth Adolescence 2009;38:1374-1387.

(39) Shields M. An update on smoking from the 2005 Canadian Community Health Survey. 2006; Available at: http://www.statcan.gc.ca/pub/82-621-x/2006002/4053728-eng.htm. Accessed 9.08, 2010.

(40) Feng Xiao Li, Robson PJ, Ashbury FD, Juanita Hatcher J, Bryant HE. Smoking Frequency, Prevalence and Trends, and Their Socio-demographic Associations in Alberta, Canada. Canadian Journal of Public Health November/December 2009:453-458.

(41) National survey aimed at improving children's health. 2009.12.07; Available at: http://www.queensu.ca/news/articles/national-survey-aimed-improving-childrens-health. Accessed 9.08, 2010.

(42) Lopez AD, Collishaw NE, Piha T. A descriptive model of the cigarette epidemic in developed countries. Tob. Control 1994(3):242-247.

(43) White V, Hill D, Siahpush M, et al. How has the prevalence of cigarette smoking changed among Australian adults? Trends in smoking prevalence between 1980 and 2001. Tob. Control 2003;12:67-74.

(44) Hill D, Carroll T. Australia's national tobacco campaign. Tob. Control 2003;12:9-14.

(45) Wakefield MA, Durkin S, Spittal MJ, et al. Impact of tobacco control policies and mass media campaigns on monthly adult smoking prevalence. Am J Public Health 2008;98:1443-1450.

(46) Gartner CE, Barendregt JJ, Hall WD. Predicting the future prevalence of cigarette smoking in Australia: how low can we go and by when? Tob.Control 2009 Jun;18(3):183-189.

(47) Chapman S. Falling prevalence of smoking: how low can we go? Tob.Control 2007;16:145-147.

(48) Australian Institute of Health and Welfare. 2007 National Drug Strategy Household Survey: first results, cat. no. PHE 98. Drug statistics series no. 20. 2008.

(49) Department of the Prime Minister and Cabinet. Australia 2020 Summit: final report. 2008.

(50) Roxon N. New health taskforce on prevention - tobacco, alcohol and obesity priorities Canberra, ACT: Office of the Minister for Health and Ageing 2008:Media release from the Minister for Health and Ageing 9 April, 2008.

(51) White MV, Hayman J, Hill D. Can population-based tobacco-control policies change smoking behaviors of adolescents from all socio-economic groups? Findings from Australia: 1987-2007. Cancer Causes Control 2008;19:631-640.

(52) World Health Report 2002: reducing risks, promoting healthy life. 2002.

(53) Blakely T, Wilson N. The contribution of smoking to inequalities in mortality by education varies over time and by sex: two national cohort studies, 1981–84 and 1996–99. Int J Epidemiol 2005;34(5):1054-1062.

(54) Emberson JR, Whincup PH, Morris RW, Walker M. Reducing social inequalities and the prevention of coronary heart disease. Int J Epidemiol 2004;33(5):1152-1153.

(55) Jha P, Peto R, Zatonski W, Boreham J, Jarvis MJ, Lopez AD. Social inequalities in male mortality, and in male mortality from smoking: indirect estimation from national death rates in England and Wales, Poland, and North America. Lancet 2006;368(9533):367-370.

(56) Siahpush M, English D, Powles J. The contribution of smoking to socioeconomic differentials in mortality: results from the Melbourne collaborative cohort study. Australia. J Epidemiol Community Health 2006;60(12):1077-1079.

(57) Laugesen M, Scollo M, Sweanor D, et. al. World's best practice in tobacco control. Tob Control 2000;9(2):228-236.

(58) Molarius A, Parsons RW, Dobson AJ, et. al. Trends in cigarette smoking in 36 populations from the early 1980s to the mid-1990s: findings from the WHO MONICA Project. Am J Public Health 2001;91(2):206-212.

(59) Pierce J, Gilpin. E., Emery. S., et. al. Has the California tobacco control program reduced smoking? 1998;280(10):893-899.

(60) Rohrbach LA, Howard-Pitney B, Unger JB, et. al. Independent evaluation of the California tobacco control program: relationships between program exposure and outcomes, 1996–1998. Am J Public Health 2002;92(6):975-983.

(61) Stanton WR, Lowe JB, Gillespie AM. Adolescents' experiences of smoking cessation. Drug and Alcohol Dependence 1996;43:63-70.

(62) Glynn TJ, Anderson DM, Schwarz L. Tobacco-use reduction among high-risk youth: Recommendations of a national cancer institute expert advisory panel. Preventive Med 1991;20:279-291.

(63) Stanton WR, Gillespie AM, Lowe JB. Reviewing the needs of unemployed youth in smoking intervention programs. Drug Alcohol Rev 1995;14:101-108.

(64) Charlton A. Smoking cessation in schools and colleges. J.Smoking-Related Dis. S 1994((Suppl. 1), 2899294).

(65) Prochaska JO, DiClemente CC, Norcross JC. In search of how people change. Applications to addictive behaviors. American Psychologyst 1992;47(9):1102-1114.

(66) Kemm J. A model to predict the results of changes in smoking behaviour on smoking prevalence. J Public Health Med 2003;25:318-324.

(67) Bonnie RJ, Stratton K, Wallace AL. Ending the tobacco problem: a blue-print for the nation. 2007.

(68) Mendez D, Warner KE, Courant PN. Has smoking cessation ceased? Expected trends in the prevalence of smoking in the United States. Am J Epidemiol 1998;148:249-258.

(69) Australian Institute of Health and Welfare. 2004 National Drug Strategy Household Survey: detailed findings. AIHW cat. no. PHE 66. Drug Statistics Series No 16. 2005.

(70) WHO Report Equity, social determinants and public health programmes. 2010.

(71) World Health Statistic 2007. 2007:15.

(72) Mackenbach JP. Health Inequalities. Europe in Profile. 2005.

(73) Thomas S, Fayter D, Misso K, Ogilvie D, Petticrew M, Sowden A, et al. Population tobacco control interventions and their effects on social inequalities in smoking: systematic review. Tob.Control 2008 Aug;17(4):230-237.

(74) Main C, et. al. Population tobacco control interventions and their effects on social inequalities in smoking: placing an equity lens on existing systematic reviews. BMC Public Health 2008;8:178.

(75) Directorate - General for Health & Consumers. Tobacco control in the EU. FACTSHEET. European Commission.(2010).

1.3 Prevalence of smoking in euFAQT countries by Country Reports

BULGARIA

Smoking among the Bulgarian population is a widely spread behaviour which is showing an obvious upward trend. The relative percentage of smokers amidst the general population above 15 years old (episodic and regular smokers) has risen from 31.1% (1986) to 40.5% in 2001.This rise is entirely due to the number of regular smokers, while episodic smokers remain more or less on the same level. Men smoke more than women (51.7%, 2001), but the number of female smokers has nearly doubled in the period 1989-2001 (from 16.3% to 29.8%), while the number of male smokers shows practically no change (49.2%- 51.7%). At the same time in Bulgaria since 2001 no significant nationwide representative survey on smoking prevalence has been carried out thus the data used are from the population sensus survey obtained in 2001.

Youth smoking prevalence has been estimated by using 3 major surveys; Health Behaviour in School -Aged Children (HBSC), European School Survey Project on Alcohol and other Drugs (ESPAD) and Global Youth Tobacco Survey (GYTS). Data from GYTS and ESPAD shows more significance for our country. The ESPAD survey examines 15-16 years old pupils and uses the proportion "smoking cigarettes 40 times or more times in their lifetime" as an indication for a regular smoker. According to ESPAD results (1999)(1) the highest prevalence rates for the SEE countries have been those of Bulgaria for boys (35%), followed by Croatia (31%). For girls the highest prevalence rates obtained were again from Bulgaria (38%). The rates in the SEE countries for boys were similar to those for boys in the EU countries while the rates for girls in Bulgaria were higher than the EU rates. The results for the most recent ESPAD survey, 2003 showed highest rates for boys in Bulgaria (42%), for girls - again Bulgaria 50% (highest prevalence rates in the SEE countries and 3rd in ranking after Greenland and Austria). Data obtained from the CEE Tobacco Control Project (WHO and the Stability Pact, 2005).

As for the GYTS survey data are presented for the countries for which they have been currently available. The highest smoking prevalence rates were those for Bulgaria - boys

(31%) and girls (43%). We cannot make any comparisons as the data are not directly compatible with ESPAD. Anyway, besides the missing data for some countries in the Region and the different surveys and the incomparable data, we have to confess that smoking prevalence rates in youth are high and alarming, girls are smoking more than boys, Bulgaria is keeping the highest rates for both boys and girls, and these high rates, especially for girls, are much above the rates in the EU countries.

Smoking among children and adolescents is characterized with early onset and sharp rise in those aged 13-16. According to data from the project Global Youth tobacco Survey (GYTS), 42.7% of girls and 31.3% of boys smoked in 2002, these numbers include correspondingly 18.8% girls and 16.3% boys smoking everyday or almost everyday. The data show an increase of the number of smokers with the age, decrease in the lower age limit of onset (below 13 years); 68.5% of the sample are exposed to passive smoking in their homes. A survey within the frames of the European School Project (ESPAD, 2003), shows that experiments with cigarette smoking are widely spread among Bulgarian pupils: 69.1% of the respondents (64.4 % of the boys and 73.4% of girls have tried to smoke; nearly half of the pupils have tried cigarettes before turning 13 (48.5%). Among the pupils from IX to XII classes, 74.7% of the inquired respondents have smoked cigarettes at least once in their lives. The relative part of non-smokers is higher among boys (27.8%) than girls (22.7%) and reduces slowly with age. Troublesome is the fact that 1/3 of Bulgarian pupils (33%) have lit their first cigarette at and below the age of 13. Data on tobacco smoking among their older brothers and sisters and smoking in the circle of friends state even more categorically: about and more than 50% of both boys and girls declare that their older brothers and sisters are smokers, and about ¾ of them point out that more or nearly all of their mates smoke cigarettes.

The survey was carried out for a second time in 2008. The comparative analysis of the results of the two stages of the survey shows a significant reduction in the number of pupils who experimented with cigarettes in 2008 (58.8%) as compared with 2002 (65.7%), especially in the group of girls. In 2008 21.2% of children have lit their first cigarette before 10 years of age. In the 6 years dynamics 2.4% more children experimented with smoking before attaining that age. 28.2% of the inquired pupils are already current smokers, as between the

2 stages of the survey a reduction in their number in about 5% has been reported. 31.2% of the non-smokers are inclined to start smoking in the following year showing an insignificant trend of growth of this indicator.

The results obtained are a proof that in spite of the changes in public policy aimed at the reduction of tobacco use, the child smoking continues to be a serious and priority problem of public health. They confirm the imperative demand of elaboration and implementation of qualitative new approaches and preventive programs as early as the elementary school age for prevention of the initial use of cigarettes and a maximum delay of the onset of cigarettes, as well as securing help and support for smokers who want to quit.

GREECE

Results of GYTS survey conducted in 2004-2005 among 13-15 years old students show that among 6,378 students 1/3 tried tobacco at least once and 16.2% were current smokers (2). 32.2% of the sample ever smoked and ¼ of both gender initiated smoking at the age below 10. 10.4% smoked cigarettes regularly and 10.9% used other tobacco products (3). For 10.5% the first cigarette within 30 minutes from waking up in the morning is an urgent need. Approximately 19.9% of the sample said that it was possible that they would start smoking in the next year.

According to WHO the prevalence of smoking among young people between 2002 and 2005 was 13.8% (13.5% for boys and 14.1% for girls) (4).

Results from the ESPAD study (Alcohol and other drugs among students in 35 European Countries) showed that lifetime smoking among Greek students is below the European average (50% compared to 66%). Greece was below the European average also concerning the 30-day prevalence of smoking in 2007 (22% compared to 29% EU average) ((5)(6)(2)).

A number of smaller scale studies conducted mainly in schools give a picture of the extent of smoking prevalence among Greek adolescents. Depending on location, smoking prevalence ranges from 10 to 32% for 15-year-olds to a maximum of 50% in 16–19-year-olds ((7)(8)(9)). In a study among 1,843 boys and 1,984 girls (age range: 12–18 years) in 58 schools from rural, semi rural and urban areas the prevalence of regular smoking was 13%, 23.1% had smoked at least once, 6.7% smoked occasionally and 57.2% of the adolescents had never smoked ((10)). Other studies report similar findings. The prevalence rate of current smoking for adolescents between the ages 16 to 18 years was around 24% (3)(11)(2). A study conducted in Northern Greece found that the prevalence of smoking among high school students was 29.6% (interesting enough the prevalence of smoking among teachers was 47.4%) (12).

No significant differences in terms of adolescent smoking between genders was observed (6)(10)(3), although in some studies where males were found to smoke more than females (13)(14) it was suggested that this was due to the cultural acceptance of smoking among

males compared to females (13). Greek adolescent smoking practices are not limited only to smoking cigarettes and prevention practices should extend to other forms of tobacco products (3).

The reasons that Greek adolescents smoke are under examination and information is fragmented and based on smaller scale studies. Findings from these studies point to the following strong indicators of adolescent smoking:

- Parental smoking (10)(3)(13)(11)(14)(2)
- Having siblings who smoke (10)
- Having a best friend or a most favoured teacher who smokes (14)
- Having a daily allowance of over €16 instead of €7 or less (13)
- Lower socioeconomic status (2), although this finding is not consistent across studies (14)
- Living in urban locations and tobacco cultivating areas (10(15)
- Cigarette smoking was associated with high levels of emotional and behavioural problems (11)(2)

Strong and Sidira interviewed a total of 100 young people aged between 16 and 19 in coffee shops and fast-food restaurants, about smoking habits through a questionnaire including both structured and unstructured open ended questions (16). The study concludes that smoking among Greek teenagers is strongly influenced by family and friends: one in ten teenagers were offered a smoke by a relative; two-thirds belonged to families including at least some smokers ((16) 2006).

Findings from the Global Youth Tobacco Survey (GYTS) showed that 9 out of 10 students are exposed to second-hand smoke in their homes or in other public areas. In their vast majority (95%) students mentioned that they were able to purchase cigarettes without any problem while 16.7% said they had been offered a promotional packet of cigarettes by a tobacco company representative (17).

A study conducted by the Greek Center for the protection of Consumers showed that among a sample of 1420 students aged between 11 and 15, 80% have never smoked, 20% have tried smoking or smokes up to 6 cigarettes per week, 3.6% smoke more than 6 cigarettes a week

((18)). In this study the majority of the students' parents smoked (60.3%). Most students who smoked got their first cigarettes through friends while the majority kept their smoking habits from their parents. An interesting 4.7% smoked in the house with their parents.

Tobacco use in Greece is a culturally accepted behaviour. Consequently, Greek adolescents and children are widely exposed to cigarette smoke. The relatively low price of cigarettes in comparison to other EU countries also contributes to this (9). Cigarette smuggling is also widespread, making cigarettes even more readily available to minors (9).
HBSC survey conducted in 2001-2002 for 27 European countries showed that the lowest overall prevalence of daily smoking was found in Greece (6.1% for boys and 6.2% for girls). (19).

HUNGARY

In Hungary adolescents start smoking at very early ages, and nowadays the age when they start smoking and do it regularly is ever decreasing. According to the 2007 ESPAD results three-quarters of the 16-year-old Hungarian students have smoked at least once in their lifetime, while 31% smoke regularly. Among the 35 studied countries Hungary was the 13th on the list (5).

The Hungarian Smokingmonitor based on 2007 results concluded that 33% of adults are smoking nowadays in Hungary, which means every third adult smokes. As regards gender differences, 28% women and 48% men smoke, most of them on a daily basis (women: 25% men: 42%). 4% of the population smokes only occasionally, the largest proportion of occasional smokers are represented by 18-24 year olds (10%). According to the research in 2007, the quantity of cigarettes smoked per smoker is 16.5 cigarettes / day.
On the basis of the results obtained in 2004 and 2007 annual survey, the proportion of daily smokers experienced a slight increase (from 31% to 33%), particularly in the case of men (36% to 42%) and in the capital (32% to 41%) and those living in towns with county rights (32% to 45%).

According to the 2009 Eurobarometer results obtained from questionnaire survey of 27 EU member states, Hungary is situated on the fifth place. The research found that 36% of the population smokes regularly or is an occasional smoker, 19% had smoked, but quit and 45% of the respondents surveyed have never smoked in their lifetime.
The previous national GYTS (Global Youth Tobacco Survey) based on the statistics of 2003 (20), found that 70.7% of the 13-16 years old students have tried cigarettes and 17.7% of them were smoking before the age of 10. About one third of the students (33.5%) smoked at the time of the inquiry (smoked at least once in the last month). The research results also show that gender differences virtually disappeared in the smoking characteristics (31.1% of boys, 32.7% of girls smoked at the time of the interview). In many western countries the frequency of smoking among girls is higher than among boys. These results were also confirmed by the GYTS 2008th research.

Regarding to the smoking trial, the researches found that nearly 6 out of 10 students (57.9%) have tried cigarettes in their lifetime (boys: 56.5%, girls: 58.4%). Including the ever smokers, 18% of them have started smoking before the age of 10. Approximately one-quarter of the students (23.2%) currently smoke cigarettes (i.e., smoked in the last 30 days). In this regard, there is no difference between the two sexes, although the data is alarming that the current smoking rate of girls is higher than that for boys. Currently, 13.8% of them consume other tobacco products (cigars, miniature cigars, cigarillos, pipes, hookahs, chewing tobacco, snuff). In this respect the boys are slightly but significantly higher consumers than the girls (16.8% and 10.4%).

Nearly one in five young people who have never smoked (18.5%) expects they will smoke within the next year; data for girls in this case are also less favourable than for boys.
Except the commercial cigarette pack, the adolescents also use other tobacco products (hand-rolled cigarettes, cigars, miniature cigars, cigarillos, chewing tobacco, pipe tobacco, and hookah). The prevalence of hookah is the highest (11.5% of the total sample). The data also show that the pipe / hookah use shows significant regional difference: a significantly higher proportion of young people in the capital used hookahs compared with the countryside, so we are facing a phenomenon that is more present in the capital. By contrast, in the villages the consumption of hand-rolled cigarette is widespread (the difference is not significant).

As we are concerned for the gender differences we can say that boys used the non-manufactured tobacco products in a greater proportion than girls (the difference is not insignificant). This applies to all surveyed product types.

POLAND

Characteristics of the cigarette smoking epidemic in a population of children and adolescents aged 11-19 in Poland. Results of literature overview published within the years 2001/02 – 2009.

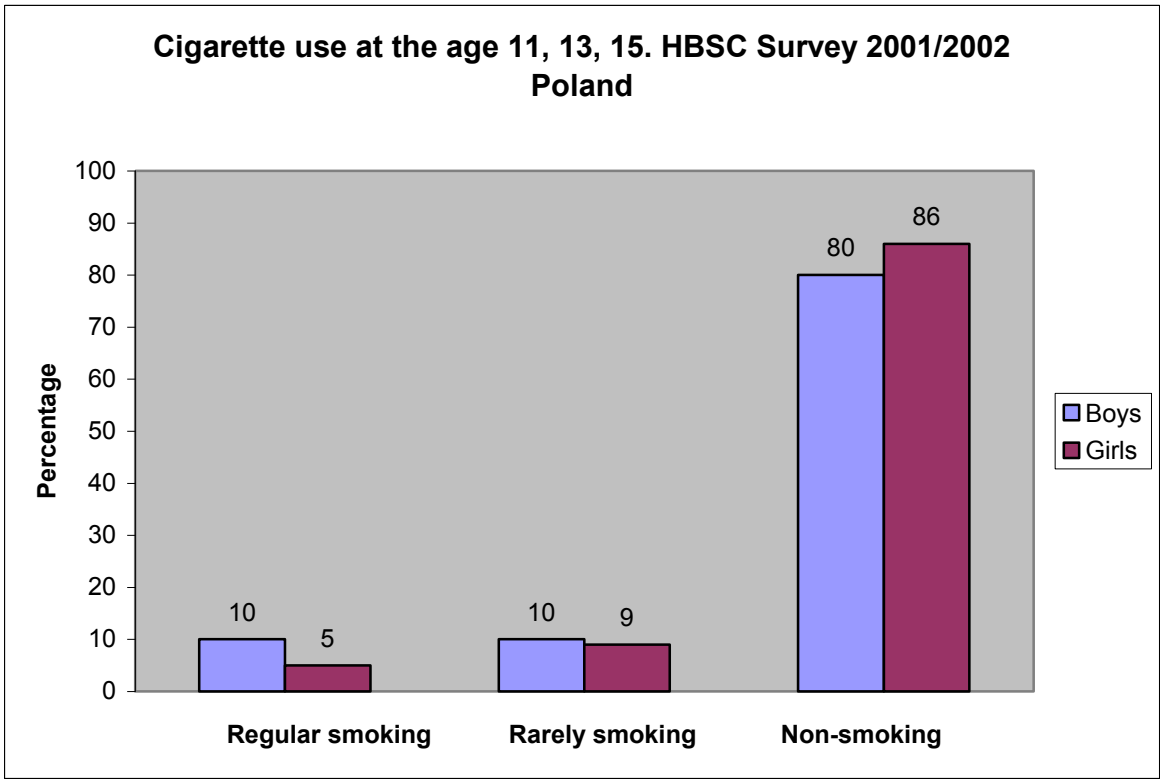
The results of the studies of 2001/2002 (21) shows that in the school year 2001/2002 50% of Polish boys aged 11, 13 and 15 undertook attempts to smoke. In the population of Polish girls aged 11, 13 and 15, 38% of respondents undertook smoking.

The differences of patterns of smoking initiation between girls and boys are confirmed by Polish studies of a local range, at voivodship level (e.g. among adolescents of Wielkopolskie voivodship[9]) as well as studies at urban society level (e.g. among adolescents in Wrocław) (22).

It results from the quoted studies of 2001/2002 (21) that in Poland in a group of children and lower secondary school pupils aged 11. 13 and 15 the average age of tobacco initiation is 11,4 for boys and 12.7 for girls. (23)(5). In the study about 10% of questioned boys and 5% of girls in a population aged 11 – 15 declared regular smoking and 10% boys and 9% girls declared occasional smoking. The chart below illustrates the characterised patterns of behaviour.

[9] A. Kostiukow,A. Pioterek, M.D. Głowacka, E.Mojs (2006). Smoking among grammar-school pupils in Wielkopolska Province. Problemy Higieny i Epidemiologii. 2007(88), (supl.3)(31)

Chart 1. Patterns of cigarette smoking in a population of children and adolescents (aged 11, 13 and 15) in the HBSC studies realised within the years 2001/2002).



Source: Woynarowska B., Mazur J.2003 Psychoactive substance use and other risk behaviours among adolescents 11-15-year-old in Poland in 2002. Alcoholism and drug abuse, 2003: 16 (3/4) p.155-171

The comparative analyses of the results from the subsequent editions of the studies realised within the years 1990 – 2006 show:

- A change of smoking initiation age – at the age of 13 on average i.e. about two years later than in the study of 2001/2002. However, 19.0% of boys and 9.0% of girls admit smoking initiation at the age of 11 or earlier (24)
- that in the population of boys: the percentage of boys who at the age of 15 have already gone through smoking initiation dropped from 67% in 1990 to 63% in 2006 (25)
- that in the population of girls: the percentage of girls who at the age of 15 have gone through nicotine initiation increased from 44% in 1990 to 55% in 2006 (25)

Research among adolescents in Mokotów district of Warsaw has been the first sign of the change regarding smoking prevalence among girls and boys. Results of the study conducted within the years 1988 – 2000 show a sudden and significant rise in the percentage of smoking girls, from 21% in 1998 to 39 % in 2000 (contrariwise to boys). The most significant rise is

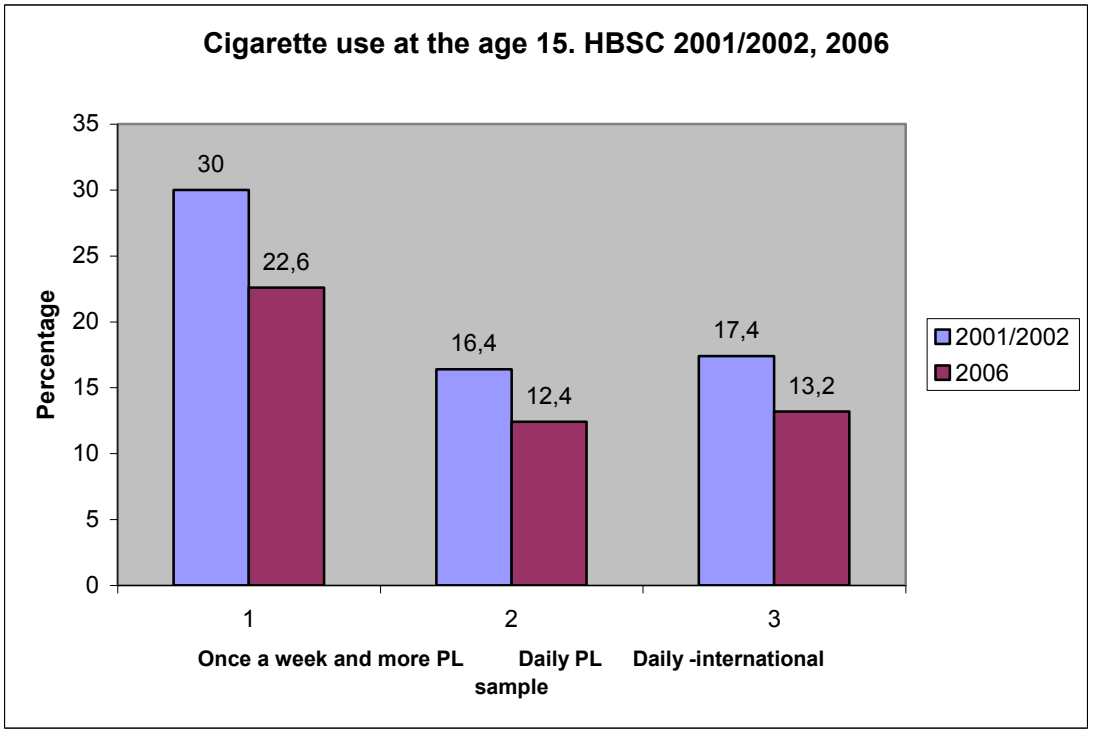
seen in the percentage of girls smoking regularly; from 6% in 1988 to 18% in 2000. The increase in cigarette smoking among girls has been recognised as a symptom of a wider phenomenon, i.e. a general change in teenage girls' lifestyle in the direction of undertaking risky behaviours, earlier observed exclusively in boys, such as drinking alcohol, using drugs, aggressive behaviour and cruel crimes. (26)

Change in smoking patterns in the youth population aged 15 was shown in 2006 in HBSC study realised by the Mother and Child Institute (27) slight decrease in the percentage of adolescents smoking daily – 12.4% (including boys 14.9%, girls 10.1% (28)

- decrease in the percentage of adolescents smoking regularly (i.e. at least once a week) from 30.0% in 2001/2002 to 22.6% in 2006 (24)
- decrease in the frequency on regular smoking from 16.4% in 2001/2002 to 12.4% in 2006 (24)

In the same study in an international sample from 32 countries in a parallel age group the frequency of regular smoking dropped from 17.4% in 2001/2002 to 13.2% in 2006. (24). Results are illustrated in chart 2.

Chart 2. Comparison of cigarette smoking patterns in a population of adolescents aged 15 in HBSC studies realised in the years 2001/2002 and 2006.



Source: The Minister of Health Report on realisation of the Programme for the Reduction of Health Implications of Smoking Tobacco in Poland in 2009, Warsaw, February 2009.

The Polish HBSC study of 2006 confirmed the sustaining and adverse general tendency of the increase in the percentage of adolescents undertaking attempts to smoke cigarettes together with age. In the study 58.9% of 15-year olds declared attempts to smoke (28).

The results from 2006 also confirmed that Polish boys smoke more often than their peers from Western Europe. The same study also showed that people starting smoking before the age of 13 smoke much more at the age of 15 then those who started smoking later (28).

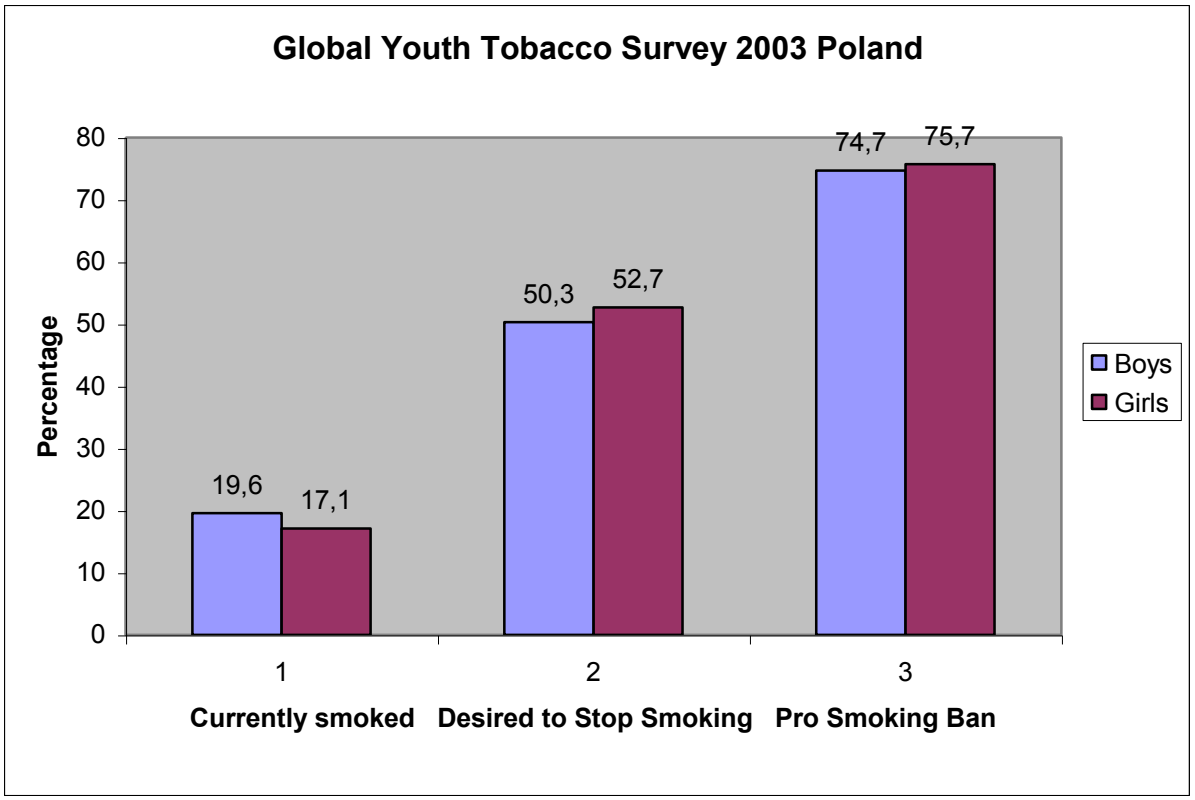
The relationship is much stronger in the case of girls than boys; girls who start smoking early in life smoke over 5 cigarettes a day four times more often than those who started smoking later (28). Boys, on the other hand, who start smoking later smoke more, which may be linked with different gender related mechanisms of addiction formation. 18.0% of adolescents admitted smoking at least once a week or more and no gender related differences were observed (24).

The Polish cross-country study conducted within the frame of Global Youth Tobacco Survey (GYTS) was also referred to in the (27). According to this review 64% of boys and 53% of girls undertook an attempt to smoke at the age of 13-15 in 2003, including 30% boys and 21% girls before attaining the age of 10. The GYTS study showed that 16% of smoking boys and 8% of smoking girls have a cigarette in the morning, after waking up, which is a proof of their addiction to tobacco.

The study, just as the HBSC study, showed the prevalence of smoking both in the population of boys (19.6%) and girls (17.1%) Over half the smoking adolescents, 50.3% of boys and 52.7% of girls, were interested in quitting smoking.

The study also showed that the youth possesses knowledge on smoking harmfulness and in general understands the preventive sense of smoking ban. The discussed issues are presented in chart 3.

Chart 3. Prevalence of smoking, declarations on stopping smoking and the level of acceptance of the smoking ban by lower secondary school students.

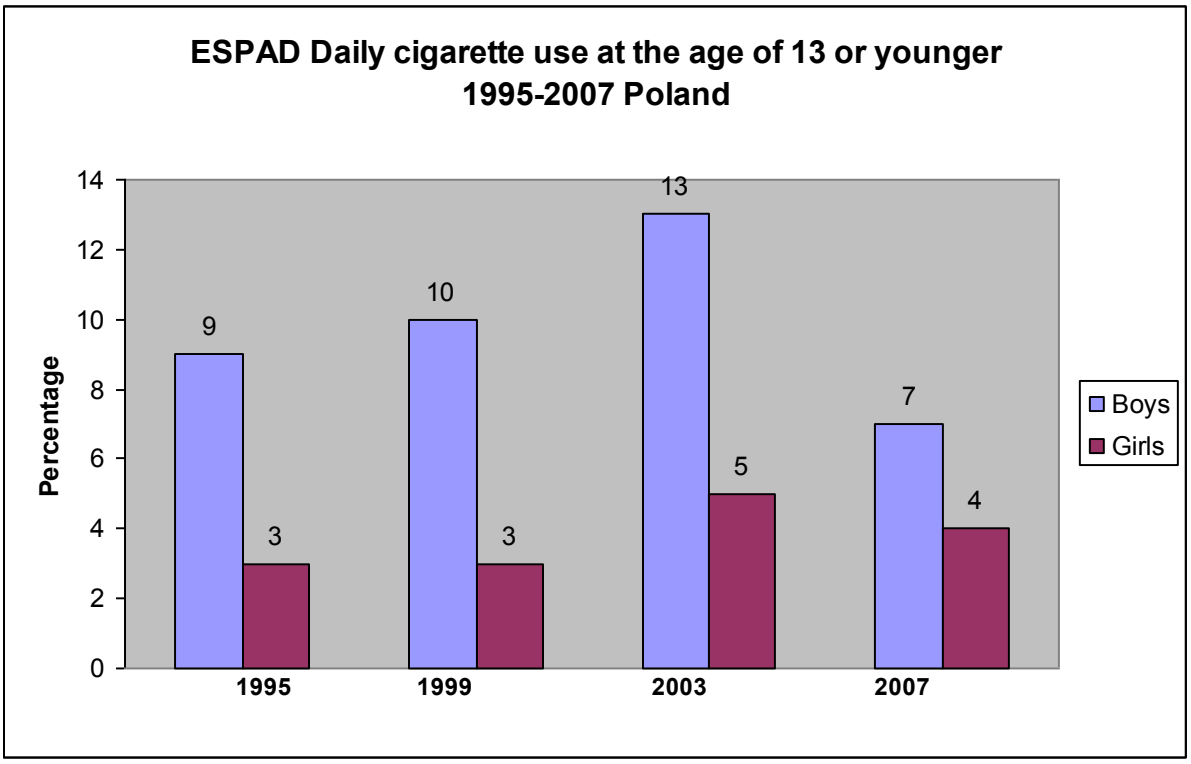


Source: data from 2003(http://www.cdc.gov/tobacco/global/gyts/ read in May 2010)

Estimation of changes in tobacco smoking prevalence among teenagers was one of the goals of the "The European School Survey Project on Alcohol and Other Drugs" - ESPAD study. The panel study was conducted in the years 2001 and 2005 in the population of lower secondary school students from the town of Iława.

Comparison of the results of both editions showed a reduction in the number of boys and girls smoking cigarettes in the studied population; there were over 10% fewer smokers among students of first classes of lower secondary schools (aged 13-14) as well as among the students of third classes (aged 15-16). The drop in the percentage of lower secondary school students smoking daily was two times higher (29).

Chart 4. Daily cigarette smoking pattern of lower secondary school pupils – the observation of the trend in the years 1995-2007



Source: data from 2001 and 2005 (http://www.espad.org/espad-reports, read; May 2010)

The results of both discussed studies (HBSC and GYTS) are confirmed by environmental studies of various ranges. The study of 2005/2006 in Gorzów Wielkopolski may be quoted as a confirming example, where 54.7% of lower secondary school students declared experience with tobacco smoking (30).

Studies from the Wielkopolskie Voivodship may serve as another example. The results of representative studies on a sample of 579 lower secondary students of the region showed that the daily pattern of smoking dominated among the surveyed. The students admitted that 57.1% of the surveyed smoke 5 cigarettes a day, 15.6% smoke 6 to 10 cigarettes and 27.3% over 10 cigarettes. The Poles are aware of tobacco smoking harmfulness and this is the reason why 67.5% of them have undertook attempts to quit smoking (31).

Studies and literature on the issue of cigarette smoking in the population of secondary higher schools are not so numerous. Most of them describe the issue of prevalence and patterns

of smoking and smoking conditioning in a much wider way than in the case of younger populations (children form primary and lower secondary schools).

The HBSC study of 2004, including tools to measure psychological conditioning of smoking, on a representative cross-country sample of adolescents form higher secondary schools (N=3123) showed that 76.3% of males and 70.3% females smoked. The growing with age tendency to take up smoking was confirmed: 69.7% of adolescents smoked at the age of 16 and 76.3% smoked at the age of 18. The study also proves that smoking is a greater problem among urban than among rural adolescents (32).

An example illustrating the statement is the study on Sokółka Poviat adolescents of 2006. The general growth tendency to undertake smoking together with age was also confirmed by the results in the rural population: 44% of the studied youth aged 17-19 undertook attempts to smoke, including 48% of boys and 41% of girls. In the 18-19 age category, boys who have not smoked earlier significantly more often than girls undertook such behaviour: 41.3% of boys and 39.2% of girls. On the other hand the results of the quoted study showed lower percentage of smoking adolescents aged 18-19: 52%, including 26% daily (47).

Summary

The review of Polish literature published within the years 1996-2009 on the issue of cigarette smoking in a population of children and adolescents aged 11-19 shows that the most alarming facts are:

- still early tobacco initiation, on average at the age of 13 (boys at the age of 11.4 and girls at the age of 12.7 on average); however, the study results signal the increase in the number of children whose initiation took place earlier
- increase in the number of smoking girls pointed out for the first time in the studies from 1998 – 2000. The increase in cigarette smoking among girls has been recognised as a symptom of a wider phenomenon, i.e. a general change in teenage girls' lifestyle in the direction of undertaking risky behaviours, earlier observed exclusively in boys
- slight drop in the percentage of teenagers smoking cigarettes regularly, which, as a positive tendency, was shown in the first years of the 21st century.

ROMANIA

Prevalence of active smoking: general population and adolescents

Despite increasing discussion over the past 10 years about the health risks associated with smoking, the overall smoking prevalence in Romania is higher than in the European Union: approximately 32% (data from the latest national survey in Romania - Knowledge, Attitudes and Practices of the General Romanian Population Regarding Tobacco Use and the Legal Provisions, Centre for Politics and Health Services, 2007 (33); one of the reasons being the one that through its geographic position Romania belongs to the Balkans: "land of Europe's inveterate smokers" as is named by in a France Press article (34).

In the last study conducted at European level, the proportion of respondents who say they smoke is 28%, 8% of respondents saying they smoke occasionally and 17% saying they used to smoke but now they have stopped (35).

Important data about smoking habits among adolescents has been collected in ESPAD studies (studies developed under ESPAD project whose one of the objectives is to provide data that can be used as part of the evaluation of the EU action plan on drugs); the last ESPAD collected data in spring 2007 and the target population were students born in 1991, with a mean age of 15.8 years at the time of data collection. In the survey, 25% of the Romanian students (boys - 26% and girls - 23%) reported they had used cigarettes during the last 30 days (the average for all countries being 29%) on average (36).

The report, *Reversing the tobacco epidemic, Saving lives in south-eastern Europe*, shows a ratio of male to female smoking lower among young people than among adults in Romania, implying that smoking is becoming increasingly common among girls and young women. The rates of smoking among girls are higher than those among older women, suggesting that rates among women are set to increase significantly (37).

A transversal study conducted in Bucharest where the population is diverse and reflects trends at the national level, shows that 29% of the mothers with babies less than 9 months of age smoke. The prevalence of smoking among Roma mothers is higher compared with non-Roma

mothers. Some 68% of the mothers smoked light cigarettes and 40.3 % incorrectly considered them less harmful (38).

There has been found a correlation between the percentage of adolescents' cigarette usage and the availability of tobacco products in the ESPAD study. For Romania, 58% of boys and 48% of girls interviewed have considered that cigarettes are "fairly easy" and "very easy" to obtain (36).

When speaking about tobacco consumption, a population is often not taken into consideration, namely young workers. A study by Romtens Foundation in 2007 in a Romanian factory reveals that the workers under 34 have had a higher proportion of smokers (~56%).

The age of onset for tobacco usage

In terms of the age of onset for cigarette use, the proportion of boys and girls having tried cigarettes at the age of 13 or younger was 29% for all respondents, 36% for boys and 22% for girls. 4% of Romanian respondents at the last ESPAD study declared they had smoked cigarettes on a daily basis at the age of 13 or younger (36).

The latest national survey in Romania shows that 12% of smokers have begun to smoke at age of 15 and 50% of smokers have begun to smoke before the age of 19. 62% of survey' respondents from the age group of 15-24 have declared that they had tried at least once to smoke, the percentage being higher than percentage from other age groups (33).

In the study performed by Romtens Foundation in a Romanian company it has been found that half of smokers have already started to smoke before age of 19. The earliest age of onset for smoking was 8 years old (39).

Prevalence of passive smoking

Even if it is firmly established that exposure to second-hand smoke kills non-smokers and exacerbates illnesses, unfortunately passive smoking is also represented at higher level in Romania: in 2005 an Euro-barometer study indicated the fact that in Romania 91% of smokers smoke in their home, 61.5% of smokers smoke at workplace or school, and 38%

of smokers smoke in their cars even when they are not alone (40). In these conditions, many children and young people – who are particularly vulnerable to exposure to second-hand smoke – continue to be exposed to second-hand smoke and to be at risk of developing diseases or even dyeing.

It is a fact that the second-hand tobacco effects are unknown or not well understood by population and adolescents so one of the needs at community level can be related to bringing information or rising awareness on exposure to second-hand tobacco smoke.
There were not many studies on smoking prevalence in community at the local level but it is known that in poor families, the smoking habit, unfortunately, is well represented. Children living in workless and poor households are more exposed to smoke than children in families with significantly higher incomes. Parents are interested in children's health and intervention informing them about the risk of active and passive smoking can improve the situation of smoking in houses. A survey by Romtens Foundation in a poor Romanian community reveals that some of the issues were: increased level of tobacco use (compared with the national average), the fact that smoking has a high level of prevalence among adolescents and children as well as among adults both men and women (adults are considered to have bad influence over the primary school children, 8-10 years old) and also the fact that passive smoking is wide-spread (41).

In the latest national survey, the majority of smokers (94%) have declared that they used to smoke at home, 66% at workplace and school and 57% in bars, restaurants or other locations. 39% of smokers said they have smoked daily in a room with a non-smoker in the last week before the survey.

Prevalence of smoking and risk perceived by population and adolescents

A cross sectional study developed in Timis county area on a representative sample of undergraduate students found that 56% of female students and 65% of male students have tried cigarette smoking. Smoking one or more packs of cigarettes per day was perceived as great risk behaviour by a large proportion of students (78%) and smoking occasionally was perceived as great risk by only 16% of the students (42).

SLOVAKIA

GYTS 2003, 2007: available on: www.stopfajceniu.sk

and

Citation from: Tobacco Control in the Slovak Republic (Tobacco Control: Focus on Accession Countries) Comprehensive report on tobacco control in the Slovak Republic, prepared for the European Network for Smoking Prevention (ENSP). Author: Blazej Slaby, PhD, Stop Smoking-NGO, Slovak National Coalition for Tobacco Control (access on-line: www.stopfajceniu.sk).

Health Impact of Tobacco Use

Consumption, smoking prevalence (in adults in young people) deaths attributed to smoking, differences between socio-economic groups, per capita consumption of cigarettes and available pharmaceutical treatments.

According to the data collected by the Statistical Office of the Slovak Republic, smoking prevalence accounts in 2000 for 46% of adult population (32% regular and 14% occasional smokers), in 2002 for 40% adult population (27% regular and 13% occasioanal smokers), in 2004 for 41% adult population (28% regular & 13% occasioanal smokers), in 2006 for 38% adult population (25% regular & 13% occasioanal smokers). The Markant-Advertising Agency conducted a socio-economic survey on the occasion of the Slovak Great Smoke-Out Day 2002 with similar results. The surveys show that smoking prevalence among regular adult smokers fell by 4%, while the number of young smokers has significantly increased. This increase is alarming and requires better engagement of governmental and non-governmental associations in order to deal with it.

Survey conducted by Stop Smoking-NGO (Geat Smoke-Out Day campaign 2002) shows that 62% of Slovak children smoke their first cigarette between the age of 11 and 13. According to the Global Youth Tobacco Survey (GYTS 2003), 25% of schoolchildren aged between 13-15 consume tobacco products at least once a month and 4% are regular smokers (4,7% boys and 3,4% girls). The study shows that parental smoking is closely associated with children smoking (80%). Children are frequently exposed to media pressure, particularly associated

with adrenaline sport activities, promotional sponsorship of various programs and projects attended by children and youth with presentation of adult smokers as an image of public success. GYTS in 2007 shows that 28% of schoolchildren aged between 13-15 consume tobacco products at least once a month and 8,3% are regular smokers (9,8% boys and 6,2% girls), parental smoking is closely associated with children smoking (46%).

Cigarettes kill prematurely 11.000 people in Slovakia a year. The average age of a regular smoker is reduced by 8 years. 2.106 oncological patients died from lung cancer in 2001, of which 95% were smokers. Lung cancer incidence is within the last 5 years at the standstill and is predicted to decrease in near future. On the other hand, the smoking pattern is moving to younger age and to female population.

Situation has worsened in prevalence of chronical obstructive lung disease and within five years Slovakia has experienced an increase by 0,3% reaching 5,5% among adult population. It is estimated by health experts that 10% - 30% of this disease are undiagnosed or imperfectly cured. Special attention needs to be devoted to the issue of smoking prevalence among females.

Allergic illnesses among children and youth, which have increased during recent years, tends to occur in smoking families more often than in families with no smoker. However, any in-depth surveys, related to the link between smoking and allergic illnesses, have not been conducted so far. This will be one of our tasks in the near future.

REFERENCES

(1) Hibell B, et.al. The 1999 ESPAD Report. Alcohol and Other Drug Use in 30 European Countries.CAN. Sweden; 2000.
(2) Giannakopoulos G, Tzavara C, Dimitrakaki C, Kolaitis G, Rotsika V, Tountas Y. Emotional, behavioural problems and cigarette smoking in adolescence: findings of a Greek cross-sectional study. BMC Public Health 2010 Feb 3;10:57.
(3) Kyrlesi A, Soteriades ES, Warren CW, Kremastinou J, Papastergiou P, Jones NR, et al. Tobacco use among students aged 13-15 years in Greece: the GYTS project. BMC Public Health 2007 Jan 8;7:3.
(4) World Health Organization. Tobacco Control Database: Country Profile: Greece. Available at: http://data.euro.who.int/Default.aspx?TabID=2404.
(5) Hibbel B, Anderson B, Bjarnsson T, Ahlstrom S, Balakirev O, Kokkevi A, et al. Alcohol and other drugs among students in 35 European Countries. The ESPAD Report 2003. Stockholm: CAN; 2004.
(6) ESPAD. The European School Survey Project on Alcohol and other Drugs. Available at: http://www.espad.org/background.
(7) Linardakis M, Sarri K, Bervanaki F, Markatzi J, Hatzis C, Flouri S, et al. Ten year evaluation of the initiation of a health education program in the schools of Crete. Paediatriki 2003;66:436-447.
(8) Labiris G, Voutsinas A, Niakas D. Preliminary evaluation of the school-smoking-prevention policy in Greece. Eur.J.Public Health 2005 Jun;15(3):329-330.
(9) Vardavas CI, Kafatos AG. Smoking policy and prevalence in Greece: an overview. Eur.J.Public Health 2007 Apr;17(2):211-213.
(10) Francis K, Katsani G, Sotiropoulou X, Roussos A, Roussos C. Cigarette smoking among Greek adolescents: behavior, attitudes, risk, and preventive factors. Subst.Use Misuse 2007;42(8):1323-1336.
(11) Giannakopoulos G, Panagiotakos D, Mihas C, Tountas Y. Adolescent smoking and health-related behaviours: interrelations in a Greek school-based sample. Child Care Health Dev. 2009 Mar;35(2):164-170.
(12) Sichletidis LT, Chloros D, Tsiotsios I, Kottakis I, Kaiafa O, Kaouri S, et al. High prevalence of smoking in Northern Greece. Prim.Care.Respir.J. 2006 Apr;15(2):92-97.
(13) Rachiotis G, Muula AS, Rudatsikira E, Siziya S, Kyrlesi A, Gourgoulianis K, et al. Factors associated with adolescent cigarette smoking in Greece: results from a cross sectional study (GYTS Study). BMC Public Health 2008 Sep 15;8:313.
(14) Sichletidis LT, Chloros DA, Tsiotsios AI, Spyratos DG. Prevalence and risk factors for initiation of smoking in Greek high-school students. Int.J.Environ.Res.Public.Health. 2009 Mar;6(3):971-979.
(15) Vardavas CI, Athanasopoulos D, Balomenaki E, Niaounaki D, Linardakis MK, Kafatos AG. Smoking habits of Greek preschool children's parents. BMC Public Health 2007 Jun 14;7:112.
(16) Strong CSE. The influence of family and friends on teenage smoking in Greece: some preliminary findings. Marketing Intelligence and Planning 2006;24(2):119-126.
(17) Grigoriou A. Smoking students [Παφ και πουφ οι μαθητές]. Kiriakatiki Eleutherotipia [Κυριακάτικη Ελευθεροτυπία]. Available at: http://www.nonsmokersclub.com/content/view/260/2/.
(18) KE.P.KA. Smoking and Adolescents [Οι βάσεις πάνω στις οποίες θεμελειώνεται και αναπτύσσεται η σχέση του ατόμου με το κάπνισμα. Available at: http://kepka.org/index.php?option=com_content&task=view&id=296&Itemid=52.
(19) Schnohr CW, Kreiner S, Rasmussen M, Due P, Currie C, Diderichsen F. The role of national policies intended to regulate adolescent smoking in explaining the prevalence of daily smoking: a study of adolescents from 27 European countries. Addiction 2008 May;103(5):824-831.
(20) Németh Á. GLOBAL YOUTH TOBACCO SURVEY (GYTS) 2003. HUNGARY. NATIONAL REPORT. 2003.
(21) Zdrowie, zachowania zdrowotne i środowisko społeczne młodzieży w krajach Unii Europejskiej. Warszawa: Katedra Biomedycznych Podstaw Rozwoju i Wychowania. Wydział Pedagogiczny Uniwersytetu Warszawskiego. Zakład Epidemiologii Instytutu Matki i Dziecka; 2005.

(22) Sadowska L, Trzmiel A, Wlazło A, Mysłek M. O środowiskowych uwarunkowaniach i szkodliwości palenia papierosów wśród dzieci i młodzieży szkół wrocławskich. Med Sport 2004;20(1):11-20.
(23) Woynarowska B, Mazur J. Używanie substancji psychoaktywnych i inne zachowania ryzykowne u młodzieży w wieku 11-15 lat w Polsce w 2002 roku. Alkoh.Narkom. 2003;16(3/4):155-171.
(24) Mazur J, Woynarowska B, Kowalewska A. Wybrane wskaźniki palenia tytoniu przez młodzież 15-letnią w Polsce na tle międzynarodowych statystyk. Prz.Lek. 2008;65(10):541-545.
(25) Kowalewska A, Mazur J, Woynarowska B. Charakterystyka wybranych czynników psychospołecznych u 15-latków, którzy palą tytoń i rzucili palenie. Prz.Lek. 2007;64(10):747--751.
(26) Ostaszewski K. Trendy w paleniu papierosów przez 15-letnią młodzież. Badania mokotowskie 1984-2000. Med.Wieku Rozw7.2003: (1 cz.2) s.105-120 2003;7(1 cz. 2):105-120.
(27) SPRAWOZDANIE z realizacji Programu Ograniczania Zdrowotnych Następstw Palenia Tytoniu w Polsce w 2009 roku. February, 2010.
(28) Kowalewska A. Wiek inicjacji nikotynowej a częstość palenia tytoniu przez młodzież 15-letnią w Polsce. Prz.Lek. 2008;65(10):546-548.
(29) Bobrowski K. Zmiany w rozpowszechnieniu używania substancji psychoaktywnych wśród gimnazjalistów w latach 2001-2005. Zagadkowe wyniki w Iławie. Alkoh.Narkom. 2007;20(2):133-150.
(30) Świderska-Kopacz J, Marcinkowski JT. Zachowania zdrowotne młodzieży gimnazjalnej i ich wybrane uwarunkowania. Cz. 1 Palenie tytoniu. Probl.Hig.Epidemiol.2007, 88(4): 441-445 2007;88(4):441-445.
(31) Kostiukow A, Pioterek A, Głowacka MD, Mojs E. Nikotynizm wśród gimnazjalistów województw wielkopolskiego. Probl Hig Epidemiol 2007;88(suppl 3):70-74.
(32) Tabak I, Małkowska A, Jodkowska M, Oblacińska A. Środowiskowe uwarunkowania palenia tytoniu wśród młodzieży szkół ponadgimnazjalnych w Polsce w 2005 roku. Wyniki wstępne. Prz Lek 2005;62(10):1102-1107.
(33) Cunoştinţele, atitudinile şi practicile populaţiei generale referitoare la consumul de tutun şi la prevederile legislative în domeniu. 2007.
(34) The Balkans: land of Europe's inveterate smokers. Available at: http://www.tobacco.org/news/207473.html.
(35) Survey on Tobacco-Analytical Report. 2009;Flash Eurobarometer Series 253.
(36) Hibell B, Guttormsson U, Ahlström S, Balakireva O, Bjarnason T, Kokkevi A, et al. The 2007 ESPAD Report. Substance Use Among Students in 35 European Countries. 2009.
(37) South-Eastern Europe Health Network. Reversing the Tobacco Epidemic: Saving lives in south-eastern Europe. 2008.
(38) Smoking - pregnant women and new mothers in Romania.
(39) Studiu de evaluare a atitudinilor, obiceiurilor şi practicilor referitoare la obiceiul fumatului în relaţie cu alţi factori de risc în întreprinderea. 2007.
(40) Atitudinea cetăţenilor UE cu privire la consumul de tutun. 2006.
(41) Report on the Health and Social Needs of People in Manastirea. 2004.
(42) Prevalence of smoking and perceived risks in un undergraduate student population from Timis county. Romania; 2009.

CHAPTER II

Determinants of tobacco use among adolescents

2.1 Stages in the development of adolescent smoking

2.2 Theories of smoking acquisition among adolescents

2.3 Environmental influences on tobacco smoking among young people

2.4 Individual factors

INTRODUCTION

The chapter explores why and under what circumstances adolescents initiate smoking, what are the determinants of smoking among adolescents including the influence of the immediate environment namely family and friends. The chapter also reviews stages of smoking uptake among adolescents reviewing the most widely used behavioural change theories.

Adolescence is the time when models of smoking are in constant change (1). Because most of young people enter adolescence as non-smokers, and most future smokers begin smoking during this period studies of youth smoking basically examine changes in smoking status. It is well accepted that adolescent smokers differ in their progress towards being full daily, regular smokers behaving differently in terms of smoking behaviour compared to adult smokers (2).

Many adolescents remain in the experimenter stage for long periods before they become full regular smokers. Researchers describe the interval between experimentation and addiction as "variable and protracted" (2). Slow progress and constant change in the smoking behaviour of adolescents allows researchers and practitioners to engage in much work in terms of smoking prevention and cessation interventions. There is evidence that any intervention during these highly changeable smoking behaviours - even among adolescents who already smoke - could prevent an adolescent from becoming a regular adult smoker (2,3).

2.1 Stages in the development of adolescent smoking

By studying developmental stages of adolescent smoking, practitioners are able to tailor interventions and activities making the most out of preventive and cessation programs. The establishment of smoking in adolescents is a complex process which researchers agree involves largely six stages or phases (4).

1. *The pre contemplation stage/phase*: Adolescents in this phase do not smoke and are largely unaware of positive reasons to start smoking or are ignoring pressures to smoke.
2. *Contemplation or preparatory stage/phase*: During this stage adolescents are starting to think about smoking, forming ideas and pictures about what smoking is like way

before they actually engage in the habit. In this stage social influences such as media exposure through pro tobacco advertisement (TV, movies, magazines etc) and role models such as teachers, parents or siblings who smoke have an effect in shaping attitudes towards smoking. At this stage adolescents also start to become aware of the social pressures imposed indirectly urging them to smoke. According to (5)there are also psychological reasons pressuring adolescents to smoke such as (a) a need to be cool, tough and independent (self confidence factors) (b) to feel more socially accepted by peers or role models (c) to control emotions.

3. *The initiation/tried stage* when adolescents try their first cigarettes. Initiation is characterised by strong peer influences (stronger than family influences) and a desire to be accepted by highly regarded peer groups. Researchers have also found that this stage is frequently characterised by poor school performance.
4. *The experimentation phase* is characterised by a gradual increase in the number of cigarettes smoked and of the variety of situations where adolescents smoke. Although adolescents during this phase are not totally committed to smoking negative reactions to smoking (such as burning sensation, bitter taste) may start to subside. This is also when future smokers will start to learn how to inhale and how to handle a cigarette and will start adopting a self image as a smoker. Family influences may become stronger during this stage.
5. *The regular smoking phase* is characterised by regular but still infrequent smoking of cigarettes on most days, or every weekend, or at every party and gathering. Researchers maintain that not all adolescents at this stage will progress into established daily smoking but a substantial number will.
6. *The established/daily smoker* is the adolescent who smokes daily or almost daily and experiences dependence and withdrawal symptoms. Researchers maintain that at this stage both biological and physiological factors influence the maintenance of smoking.

2.2 Theories of smoking acquisition among adolescents

There are a number of behavioural change theories frequently sites by researchers in their attempt to understand and explain complex behaviours such as adolescent smoking. In the smoking literature the most widely used theories are listed below:

Theory of Triadic Influence (TTI): The theory of Triadic influence states that predictors of tobacco use among adolescents spread across 3 broad categories which interact through complex processes. These categories are namely (1) interpersonal factors (2) cultural and attitudinal factors and (3) social and intrapersonal factors. According to the TTI these socio psychological factors have direct and indirect influences on adolescent smoking. Socio environmental factors are those mostly examined and which according to researchers using this theory are mostly predictive of adolescent smoking. Examples of these factors include parents' and friends' smoking (6,7).

Social learning model: According to the social learning theory teenagers adopt behaviours such as smoking through observing the behaviours of others such as peers or parents as well as observing rewards/punishments and favourable/unfavourable situations associated with this behaviour (8). The theory, by underlining the significance of social relations, notices that the influence of relations with some people and the influence of the people themselves is stronger than others. Parental and peer influence is regarded as primary social factors, and other groups of influence as secondary factors. People we have more frequent and more intimate relations with are more significant than those the relations are rarer and more superficial. Moreover, the relations earlier in life are of greater importance than those later in life. However, when an adolescent has already begun using tobacco, his or her own smoking experience is becoming more and more significant in determining whether his or her behaviour will be persistent or not. Social learning theory predicts that smoking behaviour will strengthen if exposure to smoking models and favourable definitions are not offset by negative sanctions and unfavourable definitions of tobacco.

Primary socialization theory: Just as in the case of social learning theory, also here the role of social context in which an individual learns particular behaviours is underlined. Additionally,

the theory indicates the significance of individual and character qualities such as anxiety level, self-esteem, sensation seeking and different types of psychopathology. Primary socialization theory indicates the significance of relations between teenagers and family, peers and school, while through these relations the norms and patterns of behaviour are transmitted. When the bonds between youth and others are strong and the direction of influence is prosocial, youth are not expected to engage in behaviours such as tobacco use. Media and other significant institutions indirectly influence behaviour through their influence on significant social contexts the family, school and peers.

Social identity theory: According to this theory behaviour is influenced and determined by one's self-concept created through fusion of a person's self-images as an individual and as a part of a group. (8). Each of the images falls along a continuum where personal characteristics falls on one end ('I am a smoker') and social categorical characteristics on the other end of the continuum ('I belong to the smoking group'). Consequently, the self-concept may be more "person oriented" or "group oriented". The extent that one's personal or social identity dominates in a given situation determines the behaviour of the individual. When personal identity is salient, individuals are expected to act according to their personal norms, when social identity is most important, individuals are expected to act in accordance with the group. This theory takes also into account comparisons that take place between groups. If a comparison results favourably towards the person's group the person adopts the characteristics of that group. If the opposite group results in being more favourable it is possible that the person will copy the behaviours adopted by the other group (8).

Social network theory: Social networks refer to a population that can be identified by specific boundaries for instance members of a sports club, students in a classroom etc. The social network theory presumes that behaviour of an individual is modified by all other members of a social system and that the individual himself or herself is a significant factor modifying behaviour of others. An individual's location in the network and a pattern of relations with others affects individual's behaviours, perceptions and attitudes. More specifically a person's location within a specific network affects behaviours, perceptions and attitudes towards smoking for example (8).

2.3 Environmental influences on tobacco smoking among young people

There are many factors influencing the establishment and development of smoking among adolescents. In principle, these factors may be divided into external (environmental) and internal (individual) ones. External factors refer to the following:

- Macro politics
- Media impact
- Community
- Family
- Peers

Individual factors can be described as follows: features of temperament, emotional and cognitive features and others. This group includes also biological determinants such as the genetic endowment.

2.3.1 Family influence

A family can be described as a simple community of people living together, united by the ties of kinship and mutual direct interactions (obviously, not all elements must be present to call a group of people a family – the situation is different in case of adoption or divorce). At the same time the relationships between the family members make it possible to see a family as a system. Therefore it cannot be reduced to the sum of the elements it consists of. Additionally, a family is an open system, meaning that it exchanges information with the broader social surroundings. The influence of family members takes place in process of behaviour formation of growing up young people, acceptance (identification) or lack of acceptance (contra-identification) of patterns, beliefs and behaviours. This process plays an important part during the formation of tobacco smoking related attitudes. A family, with its determined hierarchy, has for smoking a considerable meaning, since parents establish an important pattern of behaviour for the children.

Researchers have proven that parental smoking has a significant and growing impact on adolescent smoking (1,9-15). Nevertheless, the exact processes and the dynamics of influence between family members in relation to tobacco use remain to a great extent unclear (1,10,16).

More specifically, studies looking into the interfamily transmission of smoking – between adolescents and adult smokers – have not yielded uniform results. There is clear though general consensus that important dynamics are created within a family in terms of smoking initiation. Gilman *et al* 's study (10) revealed that active regular smoking of both parents was a strong predictor of adolescent smoking and that having parents who smoked for 4 or more years increased the likelihood of adolescent offspring being smokers. A father who smoked was a strong predictor of smoking outcomes in sons as was permanent residency of father in the family house (10).

Also age of exposure to parents who smoked was important as findings show that adolescents younger than 13 years had more chances of becoming a smoker. The influence of maternal smoking seems to be more influential in terms of smoking outcomes in daughters although findings are not consistent across studies (10,16). There are fewer studies examining the influence of smoking siblings on smoking outcomes of adolescents but findings have been more consistent compared to parental influence especially concerning the predictive influence of older siblings on smoking initiation of younger children (16).

When determining family influence on smoking or non-smoking of young people an important factor seems to be smoking cessation among parents (or one parent)(17). Quitting by parents is correlated with lower chances of their children being smokers, unless one of the parents continues smoking particularly when the other parent is the mother (17).

Little attention has been paid to how the influence of parental smoking can differ according to the age of the adolescent. Researchers maintain that adolescents are influenced differently by their parents in early adolescence compared to late adolescence. There are different theories reaffirming the complexity of the issue. Some theorists maintain that parental influence is stronger during the early years of adolescence and declines thereafter as teenagers progress through adolescence and seek increased autonomy and approval from friends (9,18). Bandura

(19) through the social modelling theory supports that adolescents observe and learn parental behaviours which may take long before they are actually copied. Bandura (19) explains that as teenagers move into late adolescence they maintain a desire to become an adult. This is when behaviours considered as adult behaviours such as smoking may become established.

Parental influence becomes even more complicated in terms of adolescent smoking transitions. Researchers believe that parental influence through social modelling is stronger in the early stages of smoking and specifically during the transition to trying smoking. Parental influence is weaker according to the same researchers during the transition from experimental smoker to regular daily smoker regardless of the age of the adolescent (9,19). In this later stage of smoking transition, physiological and psychological process (the smoking experience and culture, withdrawal symptoms) seem to be more influential. There is lack of agreement among researchers on these issues with studies yielding controversial findings. This fact is attributed mostly to methodological limitations of study designs(9).

There are many other factors, besides parental smoking which may influence the creation of smoking behaviour in children. The factors, which are specified as determining more frequent use of tobacco (an early initiation, increased probability of smoking in general and increased probability of higher status during the late adolescence and adulthood) by the youngsters, are as follows (1,20,21):

- Presence of only one parent
- Lower level of education of the parents
- Sexual abuse
- Violent behaviours within family
- Addiction of a parent
- Symptoms of depression or other mental illnesses within a family
- Divorce of the parents
- Other stress-inducing situations

In turn the factors having the probable impact on rarer use of tobacco by the young people are:

- Strong, positive bonds between the adolescents and the parents
- Authoritarian style of upbringing
- High level of monitoring by the parents
- High level of information exchange between the parents and the children
- Lack of approval for tobacco by the parents

Weak relationships in a family and perceived low level of support is correlated with higher risk of tobacco use and higher probability of changing status from an experimenter to a settled smoker (1). Researchers suggest that adolescents who have weak relationships with their parents will look for support among (tobacco smoking) peers becoming themselves smokers (1).

There are other mechanisms through which parents influence their adolescent children's smoking behaviour. Research has shown for example that certain types of parental styles can be protective or counter protective in terms of tobacco use (22). Concerning the use of tobacco certain styles of parenting for example positive parenting or authoritative parenting - which is defined as high degree of parental warmth and support, firm limit setting, open communication, and high levels of supervision -(22), are associated with lower current adolescent cigarette smoking(23,24). Specific parenting behaviours that can protect against adolescent smoking include expressing negative attitudes towards smoking; discussing about smoking; openly disapproving smoking; punishing for smoking; and practising antismoking behaviours such as choosing non smoking cafes and restaurants or asking smokers non to smoke in their presence(2,25-29). These behaviours are protective even if parents (or one parent) are a current smoker.

Research shows that restricting adolescent cigarette smoking is a promising parenting practice which can influence smoking initiation, smoking cessation and also progression from the early stages of smoking to regular smoking (2,30).

Ditre and associates (23) revealed that implementing strong smoking restrictive parenting techniques were significantly associated with less smoking on weekdays and weekends,

waiting longer for the first cigarette, and higher motivation to quit. De Votre and Ginsburg (22) also found that parental monitoring (combined parental supervision and parent/child communication) is protective against adolescent smoking. Henderson (31) reported that a low level of parent monitoring was a powerful predictor of smoking among 7,616 students attending 25 schools in Scotland. Finally, it is important to note that studies revealed that many parents were not aware of the fact that their children smoked for example Ditre and associates (2) revealed that 43% of their study population reported their parents were not aware their children were smokers.

In a French study conducted by Choquet and associates (32) findings indicate a strong association between parental control and lower substance abuse especially concerning tobacco use. Findings were more striking for girls. Strong evidence was also found for parental emotional support in association to cigarette consumption (32) and parental expectations against cigarette smoking (33).

The influence of parental occupation status and family affluence on addictive behaviours is not clear. Results from a study conducted in 28 countries showed that family wealth was not straight forwardly connected to regular smoking in adolescents while adolescent smoking was more positively related to low professional status in half of the countries (34).

Although complex, family dynamics and their influence on smoking outcomes and smoking progression are well established in the literature and have important implications for both smoking prevention and cessation interventions and will be taken into consideration in the euFAQT project.

2.3.2 Other environmental influences (peers, school, the media and policy)

Other factors besides the family which have an influence on smoking outcomes are peers, the school environment, the media, and – indirectly – policy related regulations such as tobacco price regulation, tobacco advertising, and restrictions in the sale of tobacco to minors.

Peer Influence

The influence of peers on adolescent smoking outcomes is more established in the literature (8,9,12,16,35,36). Having friends who smoke is a strong predictor of adolescent smoking and the influence is considered by researchers as direct (12,35,36). Adolescents may chose friends who smoke in order to have better access to cigarettes and be able to experiment more easily with smoking (33). In multicultural societies peer groups are formed by ethnically diverse adolescents. Researchers have found that smoking prevalence as well as access to cigarettes is more widespread among these groups (37).

School Influence

Although it is generally accepted that many adolescents start smoking at school, few studies have examined if certain school characteristics or "school effects' influence smoking outcomes among students in different schools. School characteristics that seem protective in terms of smoking outcomes and may explain why smoking prevalence is higher in certain schools compared to others are: degree of involvement of students with education; number of teachers students were associated with; smaller schools; school level affluence; strong written policy on and enforcement strategies on smoking; "authoritative" schooling style as opposed to 'laissez-faire" style; predominant student culture in relation to smoking (31,38-41). The effect of school characteristics on adolescent smoking outcomes needs to be examined in parallel with socioeconomic status of parents (wealth and education) and expectations of parents towards school staff.

The media

The impact of pro tobacco media on adolescent smoking outcomes is unquestionable (42,43). Exposing adolescents to marketing of tobacco products has an influence on tobacco use initiation. Studies show that exposure to pro tobacco advertisements and tobacco promotion and use in films contributes to the development of positive attitudes, beliefs and expectations towards the use of tobacco (43). Wellman and associates (43) quantified the risk reported by other studies that children exposed to pro tobacco media and marketing had to initiate tobacco use. Findings showed that the odds of becoming a tobacco user more than doubled when exposed to pro tobacco related media and marketing suggesting that young people are particularly prone to the effects of the media. Marketing and media have an influence also

in the progression from the initiation stage to the stage of becoming a heavier smoker although the impact is less than it is for the initiation stage. Another study by (43) concluded that the use of smoking in entertainment media (films) had a stronger effect on smoking initiation while the effects of tobacco and smoking advertising had a stronger effect on experimentation following initiation.

A recent study conducted in Australia showed that removing brand information from cigarette packages while increasing the size of pictorial health warning messages could decrease positive cigarette brand image associations among adolescents which influence smoking uptake (44).

Youth smoke initiation is also influenced by TV viewing as researchers have found a positive correlation between adolescent tobacco initiation and long hours of TC watching (45). Television is then to be included in the area of threatening behaviours in youth nicotine aetiology. Interventions aimed at reducing hours of exposure to TV by young people could result in reducing smoking initiation among young people.

Tobacco regulation policies

The influence of tobacco policies such as pricing of tobacco products, selling tobacco to minors or the legal smoking age, have been found to indirectly influence smoking outcomes among adolescents. For example Ross and Chaloupka (46) showed that in the USA an increase of only 0.50$ could reduce youth demand for cigarettes from 17% to 19%. They estimated that the average monthly consumption of cigarettes among US high school students would decrease from 163 cigarettes (2003 data) to 157 or 154 cigarettes (46). On the contrary raising the legal age for purchasing tobacco products has been found controversial as a prevention strategy since very often adolescents obtain cigarettes through friends, acquaintances and relatives. Furthermore, in many countries although a law banning sale of tobacco to minors exists there are insufficient means to enforce it.

2.4 Individual factors

Individual factors influencing tobacco use among adolescents include among others genetic predisposition, emotional and cognitive factors.

Genetic predisposition and prenatal factors

There is a general consensus that genetic factors play an important role in the use of tobacco suggesting that there is a gene influence in both the initiation of smoking as well as the continuation into becoming a regular, daily smoker. (47). Recently though, researchers have been directed into combining environmental and biological factors in trying to explain such complex behaviours as smoking. For example they maintain that characteristics of the normative environment (authoritative school, religious family, smoking restrictive community etc) could act restrictively placing limits upon individuals that are genetically oriented towards smoking (47). In other words researchers looking into this interaction maintain that the expression of smoking related behaviours which are part genetically caused need to find expression in a particular social environment which favours the expression of such behaviours. The environment is thus perceived as an enabling factor and not a controlling mechanism (47).

There is some evidence that the prenatal period may have an influence on later smoking since children of mothers who smoked during pregnancy became smokers themselves (1). Girls, whose mothers smoked while pregnant, showed a higher inclination towards smoking during adolescence but this could also be partially influenced by emotional-behavioural problems. There is a hypothesis that prenatal exposure to tobacco smoke (active or passive smoking by a mother), may result in the creation of a hidden addiction for girls, which is activated later in life by being exposed to tobacco smoke (1).

Emotional and cognitive determinants

Individual determinants of adolescent smoking also include psychological factors which are basically cognitive and emotional in nature. Cognitive determinants are knowledge and beliefs referring to smoking, while emotional determinants are non-cognitive agents, which

motivate smoking such as perceived stress, depression, or a need for connecting to a group etc.

Individual determinants of smoking have been searched for for a relatively long time. The former research has been focused, using the psychoanalytic concepts, on orality, on emotional labiality etc. Smokers have turned out to be more defiant, impetuous, thrill-and-danger seeking, emotionally labile and preoccupied with oral concerns then non smokers are (48).

A contemporary study of five personality variables (Rebelliousness, Risk Taking, Problem Helplessness, Affect Regulation, Early Maturation and susceptibility to Peer Compliance and Peer Approval) in children aged 10 – 11 lat shows that only rebelliousness and risk taking are the predictor of smoking at the age of 16 – 17 (49).

Higher levels of neuroticism, extraversion and lower levels of emotional stability have been found to generally predict smoking among adolescents (50). Pathological states, such as mood disorders, may also influence the uptake of smoking among adolescents (21,51). The influence of tobacco smoking on the future psychological wellbeing is another striking factor studied among adolescents (52).

Weight concern and weight status are among the most known and accepted risk factors of adolescent smoking (53). Being overweight or perceiving one's self as being overweight are independent predictors of smoking (53),(50). Young people, who believe that smoking may help them in losing weight, have many more chances of becoming smokers. In turn, a belief that smokers are less attractive may act as a preventive factor. Attractiveness and body weight (combined) seem to be especially important for younger groups.

Considering cognitive factors it is worth paying attention to the fact that usually smoking-related attitudes are created by smoking behaviour, and not the other way round. (54). It indicates a greater significance of habits and modelling and conditionally emotional factors than purely cognitive factors.

LITERATURE

(1) Darling N, Cumsille P. Theory, measurement, and methods in the study of family influences on adolescent smoking. Addiction 2003 May;98 Suppl 1:21-36.
(2) Ditre JW, Coraggio JT, Herzog TA. Associations between parental smoking restrictions and adolescent smoking. Nicotine Tobacco Res. 2008 06;10(6):975-983.
(3) Ershler J, Leventhal H, Fleming R, Glynn K. The quitting experience for smokers in sixth through twelfth grades. Addict.Behav. 1989;14(4):365-378.
(4) Mayhew KP, Flay BR, Mott JA. Stages in the development of adolescent smoking. Drug Alcohol Depend. 2000 May 1;59 Suppl 1:S61-81.
(5) Leventhal H, Cleary PD. The smoking problem: a review of the research and theory in behavioral risk modification. Psychol.Bull. 1980 Sep;88(2):370-405.
(6) Flay BR, Petraitis J, Hu FB. Psychosocial risk and protective factors for adolescent tobacco use. Nicotine Tob.Res. 1999;1 Suppl 1:S59-65.
(7) Bricker JB, Rajan BK, Zalewski M, Andersen RB, Ramey M, Peterson AV. Psychological and social risk factors in adolescent smoking transitions; A population-based longitunal study. Healt Psychology 2009;28(4):439-447.
(8) Kobus K. Peers and adolescent smoking. Addiction 2003 May;98 Suppl 1:37-55.
(9) Bricker JB, Peterson AV,Jr, Sarason IG, Andersen MR, Rajan KB. Changes in the influence of parents' and close friends' smoking on adolescent smoking transitions. Addict.Behav. 2007 Apr;32(4):740-757.
(10) Gilman SE, Rende R, Boergers J, Abrams DB, Buka SL, Clark MA, et al. Parental smoking and adolescent smoking initiation: an intergenerational perspective on tobacco control. Pediatrics 2009 Feb;123(2):e274-81.
(11) Fidler JA, West R, van Jaarsveld CH, Jarvis MJ, Wardle J. Smoking status of step-parents as a risk factor for smoking in adolescence. Addiction 2008 Mar;103(3):496-501.
(12) Otten R, Engels RC, van de Ven MO, Bricker JB. Parental smoking and adolescent smoking stages: the role of parents' current and former smoking, and family structure. J.Behav.Med. 2007 Apr;30(2):143-154.
(13) Peterson AV,Jr, Leroux BG, Bricker J, Kealey KA, Marek PM, Sarason IG, et al. Nine-year prediction of adolescent smoking by number of smoking parents. Addict.Behav. 2006 May;31(5):788-801.
(14) McGee R, Williams S, Reeder A. Parental tobacco smoking behaviour and their children's smoking and cessation in adulthood. Addiction 2006 Aug;101(8):1193-1201.
(15) Volk HE, Scherrer JF, Bucholz KK, Todorov A, Heath AC, Jacob T, et al. Evidence for specificity of transmission of alcohol and nicotine dependence in an offspring of twins design. Drug Alcohol Depend. 2007 Mar 16;87(2-3):225-232.
(16) Avenevoli S, Merikangas KR. Familial influences on adolescent smoking. Addiction 2003 05/02;98:1-20.
(17) Chassin L, Presson C, Rose J, Sherman SJ, Prost J. Parental smoking cessation and adolescent smoking. J.Pediatr.Psychol. 2002 Sep;27(6):485-496.
(18) Kandel DB, Davies M. From adolescence to adulthood. Am.J.Psychiatry 1996 Dec;153(12):1654.
(19) Bandura A. Social foundations of thought and action: A social cognitive theory. 1986.
(20) Simantov E, Schoen C, Klein JD. Health-compromising behaviors: why do adolescents smoke or drink?: identifying underlying risk and protective factors. Arch.Pediatr.Adolesc.Med. 2000 Oct;154(10):1025-1033.
(21) Al Mamun A, Alati R, O'Callaghan M, Hayatbakhsh MR, O'Callaghan FV, Najman JM, et al. Does childhood sexual abuse have an effect on young adults' nicotine disorder (dependence or withdrawal)? Evidence from a birth cohort study. Addiction 2007 Apr;102(4):647-654.
(22) DeVore ER, Ginsburg KR. The protective effects of good parenting on adolescents. Curr.Opin.Pediatr. 2005 Aug;17(4):460-465.
(23) Ditre JW, Coraggio JT, Herzog TA. Associations between parental smoking restrictions and adolescent smoking. Nicotine Tob.Res. 2008 Jun;10(6):975-983.

(24) Castrucci BC, Gerlach KK. Understanding the association between authoritative parenting and adolescent smoking. Matern.Child Health J. 2006 Mar;10(2):217-224.
(25) Andersen MR, Leroux BG, Bricker JB, Rajan KB, Peterson AV,Jr. Antismoking parenting practices are associated with reduced rates of adolescent smoking. Arch.Pediatr.Adolesc.Med. 2004 Apr;158(4):348-352.
(26) Chassin L, Presson CC, Rose J, Sherman SJ, Davis MJ, Gonzalez JL. Parenting style and smoking-specific parenting practices as predictors of adolescent smoking onset. J.Pediatr.Psychol. 2005 Jun;30(4):333-344.
(27) Chassin L, Presson CC, Todd M, Rose JS, Sherman SJ. Maternal socialization of adolescent smoking: the intergenerational transmission of parenting and smoking. Dev.Psychol. 1998 Nov;34(6):1189-1201.
(28) Bricker JB, Rajan KB, Andersen MR, Peterson AV,Jr. Does parental smoking cessation encourage their young adult children to quit smoking? A prospective study. Addiction 2005 Mar;100(3):379-386.
(29) Huver RME, Engels RCME, de Vries H. Are anti-smoking parenting practices related to adolescent smoking cognitions and behavior? Health Educ.Res. 2006;21(1):66-77.
(30) Wakefield MA, Chaloupka FJ, Kaufman NJ, Orleans CT, Barker DC, Ruel EE. Effect of restrictions on smoking at home, at school, and in public places on teenage smoking: cross sectional study. BMJ 2000 Aug 5;321(7257):333-337.
(31) Henderson M, Ecob R, Wight D, Abraham C. What explains between-school differences in rates of smoking? BMC Public Health 2008 Jun 20;8:218.
(32) Choquet M, Hassler C, Morin D, Falissard B, Chau N. Perceived parenting styles and tobacco, alcohol and cannabis use among French adolescents: gender and family structure differentials. Alcohol Alcohol. 2008 Jan-Feb;43(1):73-80.
(33) Simons-Morton BG. The protective effect of parental expectations against early adolescent smoking initiation. Health Educ.Res. 2004 Oct;19(5):561-569.
(34) Richter M, Vereecken CA, Boyce W, Maes L, Gabhainn SN, Currie CE. Parental occupation, family affluence and adolescent health behaviour in 28 countries. Int.J.Public.Health. 2009;54(4):203-212.
(35) Christophi CA, Sawides ECG, Warren CW, Demokritou P, Connolly GN. Main determinants of cigarette smoking in youth based on the 2006 Cyprus GYTS. Prev.Med. 2009;48(3):232-236.
(36) Leatherdale ST, McDonald PW, Cameron R, Jolin MA, Brown KS. A multi-level analysis examining how smoking friends, parents, and older students in the school environment are risk factors for susceptibility to smoking among non-smoking elementary school youth. Prev.Sci. 2006 Dec;7(4):397-402.
(37) Unger JB, Palmer PH, Dent CW, Rohrbach LA, Johnson CA. Ethnic differences in adolescent smoking prevalence in California: are multi-ethnic youth at higher risk? Tob.Control 2000;9 Suppl 2:II9-14.
(38) Turner K, West P, Gordon J, Young R, Sweeting H. Could the peer group explain school differences in pupil smoking rates? An exploratory study. Soc.Sci.Med. 2006 May;62(10):2513-2525.
(39) West P, Sweeting H, Leyland A. School effects of pupils' health behaviours; evidence in support of the health promoting school. Research Papers in Education 2004;19(3):261-291.
(40) Aveyard P, Markham WA, Cheng KK. A methodological and substantive review of the evidence that schools cause pupils to smoke. Soc.Sci.Med. 2004 Jun;58(11):2253-2265.
(41) Aveyard P, Markham WA, Lancashire E, Bullock A, Macarthur C, Cheng KK, et al. The influence of school culture on smoking among pupils. Soc.Sci.Med. 2004 May;58(9):1767-1780.
(42) Sargent JD, Hanewinkel R. Comparing the effects of entertainment media and tobacco marketing on youth smoking in Germany. Addiction 2009 05;104(5):815-823.
(43) Wellman RJ, Sugarman DB, DiFranza JR, Winickoff JP. The extent to which tobacco marketing and tobacco use in films contribute to children's use of tobacco: a meta-analysis. Arch.Pediatr.Adolesc.Med. 2006 Dec;160(12):1285-1296.
(44) Germain D, Wakefield MA, Durkin SJ. Adolescents' perceptions of cigarette brand image: does plain packaging make a difference? J.Adolesc.Health 2010 Apr;46(4):385-392.

(45) Gidwani PP, Sobol A, Gortmaker SL, DeJong W, Perrin JM. Television Viewing and Initiation of Smoking Among Youth. Pediatrics 2002 09;110(3):505.
(46) Ross H, Chaloupka FJ. The effect of cigarette prices on youth smoking. Health Econ. 2003 Mar;12(3):217-230.
(47) Boardman JD, Saint Onge JM, Haberstick BC, Timberlake DS, Hewitt JK. Do schools moderate the genetic determinants of smoking? Behav.Genet. 2008;38(3):234-246.
(48) Jacobs MA, Anderson LS, Champagne E, Karush N, Richman SJ, Knapp PH. Orality, impulsivity and cigarette smoking in men: further findings in support of a theory. J.Nerv.Ment.Dis. 1966 Sep;143(3):207-219.
(49) Burt RD, Dinh KT, Peterson AV,Jr, Sarason IG. Predicting adolescent smoking: a prospective study of personality variables. Prev.Med. 2000 Feb;30(2):115-125.
(50) de Leeuw RN, Scholte RH, Sargent JD, Vermulst AA, Engels RC. Do interactions between personality and social-environmental factors explain smoking development in adolescence? J.Fam.Psychol. 2010 Feb;24(1):68-77.
(51) Simantov E, Schoen C, Klein JD. Health-compromising behaviors: why do adolescents smoke or drink?: identifying underlying risk and protective factors. Arch.Pediatr.Adolesc.Med. 2000 Oct;154(10):1025-1033.
(52) Upadhyaya HP, Deas D, Brady KT, Kruesi M. Cigarette smoking and psychiatric comorbidity in children and adolescents. J.Am.Acad.Child Adolesc.Psychiatry 2002 Nov;41(11):1294-1305.
(53) Seo DC, Jiang N. Associations between smoking and extreme dieting among adolescents. J.Youth Adolesc. 2009 Nov;38(10):1364-1373.
(54) de Leeuw RNH, Engels RCME, Vermulst AA, Scholte RHJ. Do smoking attitudes predict behaviour? A longitudinal study on the bi-directional relations between adolescents' smoking attitudes and behaviours. Addiction 2008;103(10):1713-1721.

CHAPTER III

Smoke-free legislation

3.1 WHO Framework Convention Tobacco Control

3.2 EU regulations

3.3 euFAQT countries

INTRODUCTION

Smoking bans are public policies, including criminal laws and occupational safety and health regulations, which prohibit tobacco smoking in workplaces and/or other public spaces. Legislation may also define smoking as more generally being the carrying or possessing of any lit tobacco product[10].

The rationale for smoke-free laws is to protect people from the effects of second-hand smoke, which include an increased risk of heart disease, cancer, emphysema, and other diseases.

Laws implementing bans on indoor smoking have been introduced by many countries in various forms over the years, with some legislators citing scientific evidence that shows tobacco smoking is harmful to the smokers themselves and to those inhaling second-hand smoke.

In addition, such laws may lower health care costs in the short term (but may actually increase them in the long term, since smokers who die sooner no longer use health care)[11] improve work productivity, and lower the overall cost of labor in a community, thus making a community more attractive for employers.

Additional rationales for smoking restrictions include reduced risk of fire in areas with explosive hazards; cleanliness in places where food, pharmaceuticals, semiconductors, or precision instruments and machinery are produced; decreased legal liability; potentially reduced energy use via decreased ventilation needs; reduced quantities of litter; healthier environments; and giving smokers incentive to quit.

[10] "36-601.01 - Smoke-free Arizona act". *Arizona Revised Statutes Title 36 - Public Health and Safety*. Arizona State Legislature. http://www.azleg.state.az.us/ars/36/00601-01.htm. Retrieved 18 Jun. 2009

[11] Barendregt JJ, Bonneux L, van der Maas PJ (1997). "The health care costs of smoking". *N Engl J Med* **337** (15): 1052–7. doi:10.1056/NEJM199710093371506. PMID 9321534. http://content.nejm.org/cgi/pmidlookup?view=short&pmid=9321534&promo=ONFLNS19

3.1 WHO Framework Convention Tobacco Control

3.1.1 FCTC – overview

The WHO Framework Convention on Tobacco Control (FCTC) was introduced in response to concerns about the tobacco epidemic. It was adopted by the World Health Assembly on 21 May 2003 and entered into force on 27 February 2005[12]. **It is the world's first international treaty for public health**. It has been ratified already by 171 countries. The latest one is Tunisia, where FCTC was entered into force on 5th of September 2010. The main goal for FCTC is to identify key interventions efficient enough to ensure proper protection of present and future generations from the health, environmental, social, and economic consequences of tobacco consumption and exposure to tobacco smoke. FCTC aims also to ensure that tobacco manufacturers cannot take advantage of less strict regulatory environments in the developing world[13]. FCTC contains particular provisions focused on reduction of tobacco's demand and supply such as price and tax measures or non-price measures to reduce the demand for tobacco like for example:

- Protection from exposure to tobacco smoke;
- Regulation of the contents of tobacco products;
- Regulation of tobacco product disclosures;
- Packaging and labelling of tobacco products;
- Education, communication, training and public awareness;
- Tobacco advertising, promotion and sponsorship;
- Demand reduction measures concerning tobacco dependence and cessation

or core supply reduction provisions such as:

- Illicit trade in tobacco products;
- Sales to and by minors;
- Provision of support for economically viable alternative activities

[12] http://www.who.int/fctc/en/
[13] http://www.smokefreepartnership.eu/Spotlight-on-the-FCTC-issue-1

Worth mentioning are also the provisions setting out mechanisms for scientific and technical cooperation and exchange of information[14].

3.1.2 History of the FCTC

As it's written in Annex 2 to the FCTC, the idea of an international instrument for tobacco was initiated with the adoption of Resolution WHA 48.11 in May 1995, requesting the Director-General to report to the Forty-ninth Session of the World Health Assembly on the feasibility of developing an international instrument such as guidelines, a declaration, or an international convention on tobacco control[15]. Later that year, the Forty-ninth Session of the WHA adopted Resolution WHA49.17, "International framework convention for tobacco control". As a result of this resolution, WHO's first treaty-making enterprise was formally launched. Starting from 2000 when the Negotiating Body has been created there were six sessions of that body with the last one in 2003 resulting with the final draft of the WHO Framework Convention on Tobacco Control. Then, as it was already mentioned, FCTC was adopted by the 56th World Health Assembly on 21 May 2003.

3.1.3 Parties to the FCTC

After its adoption FCTC was open for signature until 29 June 2004. Some of the 171 States which signed the WHO FCTC during this period are listed below[16], some examples:

Participant	**Signature date**	**Ratification, Acceptance (A), Approval (AA), Formal confirmation (c), Accession (a), Succession (d)**
Austria	28 August 2003	15 September 2005
Belgium	22 January 2004	1 November 2005
Bulgaria	**22 December 2003**	**7 November 2005**
Cyprus	24 May 2004	26 October 2005
Czech Republic	**16 June 2003**	

[14] WHO Framework Convention Tobacco Control, p.6 (http://whqlibdoc.who.int/publications/2003/9241591013.pdf)
[15] WHO Framework Convention Tobacco Control, p. 40
[16] http://www.who.int/fctc/signatories_parties/en/index.html

Participant	Signature date	Ratification, Acceptance (A), Approval (AA), Formal confirmation (c), Accession (a), Succession (d)
Denmark[2]	16 June 2003	16 December 2004
Estonia	8 June 2004	27 July 2005
European Community	16 June 2003	30 June 2005 c
Finland	16 June 2003	24 January 2005
France	16 June 2003	19 October 2004 AA
Germany	24 October 2003	16 December 2004
Greece	**16 June 2003**	**27 January 2006**
Hungary	**16 June 2003**	**7 April 2004**
Iceland	16 June 2003	14 June 2004
Ireland	16 September 2003	7 November 2005
Italy	16 June 2003	2 July 2008
Latvia	10 May 2004	10 February 2005
Lithuania	22 September 2003	16 December 2004
Netherlands	16 June 2003	27 January 2005 A
Poland	**14 June 2004**	**15 September 2006**
Portugal	9 January 2004	8 November 2005 AA
Romania	**25 June 2004**	**27 January 2006**
Slovakia	**19 December 2003**	**4 May 2004**
Slovenia	25 September 2003	15 March 2005
Spain	16 June 2003	11 January 2005
Sweden	16 June 2003	7 July 2005
Switzerland	25 June 2004	
Turkey	28 April 2004	31 December 2004

Participant	Signature date	Ratification, Acceptance (A), Approval (AA), Formal confirmation (c), Accession (a), Succession (d)
Ukraine	25 June 2004	6 June 2006
United Kingdom of Great Britain and Northern Ireland	16 June 2003	16 December 2004
(updated on 10 June 2010)		

3.1.4 FCTC – some conclusions from today's perspective

In 2009 WHO has issued Summary Report on global progress in implementation of the WHO Framework Convention on Tobacco Control. That particular publication contains some interesting conclusions. Among them we can highlight especially that:

- Implementation levels continue to vary substantially between different policy measures. Overall, Parties have reported high implementation rates for measures on packaging and labeling (Article 11), sales to and by minors (Article 16), and education, communication, training and public awareness (Article 12). Rates remain low in other such areas as disclosure of marketing expenditures by the tobacco industry (Article 13), programmes promoting treatment of tobacco dependence and cessation (Article 14), provision of support for economically viable alternative activities (Article 17), and the use of litigation as a tool for tobacco control (Article 19)[17]
- Implementation rates also differ within particular policy areas according to different elements and settings: high for advertising bans or restrictions at national level compared to the relatively low current rates for cross-border advertising (Article 13); and high for smoking bans in government buildings and health-care facilities in contrast to the much lower rates in the entertainment and hospitality sectors (Article 8)

[17] 2009 Summary Report on global progress in implementation of the WHO Framework Convention on Tobacco Control, p. 30, (http://www.who.int/fctc/FCTC-2009-1-en.pdf)

- The reports have revealed that most of the Parties need to devote more attention to measures with a particular potential to affect overall tobacco-control policy and tobacco use, such as the protection of public-health policies from interference by the tobacco industry (Article 5.3) and the promotion of cessation (Article 14)

It should also be mentioned that issues concerning international collaboration, exchange of information and mutual assistance – critical elements of the Framework Convention which stress the global nature of the problem and the need for action – remain underreported, although the picture is improving compared with the previous global progress report[18].

To sum it up very briefly we have to say that the WHO FCTC have started a process that has resulted in visible differences at national level, but the success of the FCTC as a rescue for public health will depend on the political commitment of national governments and international authorities such as the EU over the next years.

3.2 EU regulation

3.2.1 Introduction

Over the past several years, a number of EU countries have enacted strong smokefree air laws that ban smoking in virtually all indoor workplaces and public places, including bars, pubs and restaurants. More than 200 million European citizens are currently protected by good national smokefree law.

All EU Member States currently have some form of regulation aimed at limiting exposure to second-hand smoke. The scope and character of these regulations differ widely:

- Total bans on smoking in all enclosed public places and workplaces, including bars and restaurants, are so far in place in Ireland and the United Kingdom
- Italy, Malta, Sweden, Latvia, Finland, Slovenia, France and the Netherlands have introduced smoke-free legislation allowing for special enclosed smoking rooms. The experience of these and other countries has proven that smokefree air laws

[18] 2009 Summary Report on global progress in implementation of the WHO Framework Convention on Tobacco Control, p. 31, (http://www.who.int/fctc/FCTC-2009-1-en.pdf)

are effective, popular, enforceable and inexpensive. Also the public acceptance of smoke-free air laws is extremely high, even among smokers

- The latest country who introduced a smoke free law is Romania: Starting in January 1, 2009, smoking in public places will only be allowed in special ventilated rooms which don't serve as transit or access spaces.

In more than half of the Member States, citizens and workers are still not fully protected from exposure to tobacco smoke in indoor workplaces and public places. Bars and restaurants are a particularly difficult area of regulation[19].

3.2.2 Smoking bans at public places related on the example of selected European countries

3.2.2.1 Austria

Tobacco legislation was introduced in 2001 and has been subject to several amendments since then. Austria has implemented several laws which limit or outlaw smoking in certain areas:

- Smoking is prohibited in all offices with certain exceptions such as bars, discos, restaurants etc. If all employees agree on allowing smoking in a work place, smoking may continue
- Smoking was banned from all trains and train stations when Germany introduced such a ban in 2007[20]
- As of January 2009, a new law was put in place which mandates all restaurants, bars, discos and pubs which are larger than 80m² to introduce smoking rooms and non-smoking rooms. Below 50m² the owner may opt to either be a smoking or non-smoking place, between 50m² and 80m² there is an option under certain circumstances. The law provides for a very long transition phase[21]

[19] http://www.smokefreepartnership.eu/Smoke-free-legislation-in-the-EU

[20] http://www.monstersandcritics.com/news/europe/news/article_1350131.php

[21] http://www.cnn.com/2009/TRAVEL/getaways/03/05/austria.germany.travel/index.html

3.2.2.2 Belgium

At the year of 2005: Companies should have implemented smoking plans to discourage smoking.

- January 2006: Smoking prohibited in the work area
- January 2007: Smoking banned in restaurants and bars, except in the ones that serve "light meals" (e.g. cold meals, pizzas and warm meals that are served with bread instead of French fries) and have less of 30% of their sales from food servings. Small bars are also not included in the ban. Most large bars, such as concert venues, do little to enforce the ban
- September 2008: Smoking no longer allowed in schools
- January 2010: After a general smoking ban, including all types of bars had been discussed, this has been watered down to a smoking ban applying only when food is served[22]

3.2.2.3 Cyprus

On 9 July 2009 Cyprus passed a new law, tightening up ineffective 2002 legislation, that will ban smoking in bars, restaurants, nightclubs and workplaces effective 1 January 2010[23]. Since the introduction of the smoking ban on the 1 January 2010, compliance levels have been very encouraging.

3.2.2.4 Denmark

Since 15 August 2007, smoking in hospitality facilities, restaurants, bars, clubs, public transport, and all private and public workplaces has been banned. Exemptions to the law are bars with a floor space less than 40 m² and offices only used by a single employee. Separate smoking rooms are allowed in hospitality facilities as long as no food or beverage is served there. The law has caused much controversy and is as of November 2007 not fully enforced. Freetown Christiania is exempt from the ban. The law is set for revision in 2009[24].

[22] http://www.nieuwsblad.be/Article/Detail.aspx?ArticleID=G692344PG

[23] http://news.yahoo.com/s/afp/cyprussmokinghealth

[24] http://www.jp.dk/kbh/artikel:aid=4307326/

3.2.2.5 England

England become smokefree on July 1, 2007. The entire UK is now smokefree, making it the world's most populated smokefree jurisdiction.

3.2.2.6 Estonia

Smoking has been banned within indoor public areas and workplaces since 4 June 2005, except in restaurants. Later a ban on smoking in bars, restaurants, coffee shops and nightclubs started on 5 June 2007 (however still allowed in isolated smoking rooms).

3.2.2.7 Finland

Smoking has been banned in indoor public areas and workplaces from 1 March 1995, except in specially designated smoking rooms; restaurants were included in 2007. Legislation aimed towards voluntary prevention of secondary smoking was enacted, but it was not successful. Dividing a restaurant into a smoking and non-smoking section was also an ineffective measure. Smoking has been banned in all indoor public and workplaces, including bars, cafes, clubs and restaurants from 1 June 2007, except in those places which have been permitted a transition period of up to two years. Smoking in bars and trains is still allowed in enclosed smoking booths, where you can't serve or take any food or drink. As of early 2010, Finland plans to phase out smoking completely.

3.2.2.8 France

Smokefree legislation came into effect in France, on 1 February 2007, tightened the existing ban on smoking in public places found in the 1991 Évin law[25], which contains a variety of measures against alcoholism and tobacco consumption. It is named after Claude Évin, the minister who pushed for it. The law leaves certain important criteria on what is allowed or not with respect to smoking sections to executive-issued regulations, and it is those regulations that were altered in 2007.

Smoking is now banned in all public places (stations, museums, etc.); an exception exists for special smoking rooms fulfilling strict conditions. However, a special exemption was

[25] http://www.legifrance.gouv.fr/texteconsolide/ADEAN.htm

made for cafés and restaurants, clubs, casinos, bars, etc. until 1 January 2008[26], although the French government allowed a day of reflection on New Year's Day[27].

3.2.2.9 Ireland

Ireland **became the first country in the world to institute an outright ban on smoking in workplaces** on 29 March 2004. From that date onwards, under the Public Health (Tobacco) Acts, it has been illegal to smoke in all enclosed workplaces. The ban is strictly enforced and includes bars, restaurants, clubs, offices, public buildings, company cars, trucks, taxis and vans - and within a three meter radius to the entrances of these locations. The law does not apply to prisons, nursing homes, psychiatric wards and some hotel rooms.

Before the total ban, smoking was already outlawed in public buildings, hospitals, schools, restaurant kitchens, and on aircrafts and some trains (Intercity trains provided smokers' carriages)[28].

On 18 July 2008, Irish Fine Gael MEP Avril Doyle proposed in a committee in the European Parliament, that she would like to see an **EU-wide ban on cigarettes and cigars by 2025[29]**.

On 1 July 2009, Ireland banned in-store tobacco advertising and displays of tobacco products at retail outlets and new controls on tobacco vending machines were also introduced. At the same time a ban on the sale of packets of 10 cigarettes was introduced. Tobacco advertising had already been banned from radio, television and on billboards beforehand.
Signs must also be shown informing customers that tobacco is sold at the premises.
Ireland was the first country in the EU and third in the world (after Canada and Iceland) to introduce such measures, which are punishable with a fine of €3,000 and/or a six month prison sentence.

[26] http://www.legifrance.gouv.fr/texteconsolide/SQHYN.htm

[27] http://news.bbc.co.uk/1/hi/world/europe/7163178.stm
[28] http://www.eu2004.ie/templates/standard.asp?sNavlocator=3,242,455

[29] EUObserver MEP calls for EU ban on cigarettes by 2025 18 July 2008

However, specialist tobacco shops (of which there are fewer than six) are exempt from the new rules; all retailers selling tobacco must register with the Health Service Executive and the new laws will be enforced by environmental health officers.

3.2.2.10 Italy

Italy was **the fourth country in the world to enact a nationwide smoking ban**. Since 10 January 2005 it is forbidden to smoke in all public indoor spaces, including bars, cafés, restaurants and discos. However, special smoking rooms are allowed. Only 1% of all public establishments have opted for setting up a smoking room. Smoking is also forbidden in all enclosed workplaces - this includes also trains and underground stations.

3.2.2.11 Netherlands

Smoking of tobacco is prohibited by law in all public buildings and in public transport. As of 1 January 2004 every employee has the right to work in a smoke-free environment. Tobacco legislation states that employers are obliged to take measures to ensure that employees are able to carry out their work without being bothered or affected by smoke from others.

On 1 January 2008 Amsterdam Airport Schiphol became **the first European airport** with a total smoking ban, however since August 2008 smoking has been allowed in designated smoking rooms.

Since 1 July 2008 the smoking ban also applies to all hotels, restaurants, bars and cafes in the Netherlands. Separate smoking rooms are allowed in hospitality facilities as long as no food or beverage is served there. All forms of tobacco advertising, promotion or sponsorship are prohibited. Smoking of cannabis (Marijuana and Hashish) in coffee-shops is permitted as long as it is not mixed with tobacco.

3.2.2.12 Portugal

On 3 May 2007, the Portuguese parliament made a law banning smoking in all public places, except when proper air-ventilation systems are provided. It went into effect 1 January 2008.

The legal age to purchase tobacco is 18[30].

3.2.2.13 Slovenia

On 22 June 2007, the Slovenian National Assembly approved a law prohibiting smoking in all indoor public and work places, effective 5 August 2007. Exempted from the ban are "open public areas, special smoking hotel rooms, special smoking areas in elderly care centres and jails, and special smoking chambers in bars and other work places.

The law also raised the minimum age to purchase tobacco products from 15 to 18 and mandated that tobacco labels carry the telephone number of a quit-smoking hotline.

3.2.2.14 Spain

As of 1 January 2006 Spanish law bans smoking in offices, shops, schools, hospitals, cultural centres and on public transport, including stations and airports. The law also states that restaurants and bars over 100 m² can designate a smoking area, but that it has to be physically separated and may occupy at most 30% of the total floor space of the establishment. Additionally, the law prohibits the sale of tobacco products to persons under 18 years of age and limits the places in which tobacco can be sold[31]

A new, stricter law has been already announced by the government, during the Spanish EU-Presidency. Smoking will be banned in every indoor public places, including bars, clubs and restaurants before the end of 2010.

3.2.2.15 Sweden

In Sweden, smoking was banned in restaurants, cafes, bars and nightclubs in June 2005. Smoking rooms are, however, allowed in these institutions. The smoking rooms contains a few restrictions; no serving or consumption of food or beverages are allowed in the smoking rooms and it may not cover more than 25% of the institution's total area. The ban was very popular amongst the population and even the industries affected[32]. In January 2008, The

[30] http://www.alertnet.org/thenews/newsdesk/L03723356.htm

[31] http://tobaccocontrol.bmj.com/cgi/content/extract/15/2/79

[32] http://www.sweden.se/templates/cs/Article____13429.aspx

Swedish Prison and Probation Service banned smoking indoors in prisons[33].

3.2.2.16 Turkey

Turkey currently bans smoking in government offices, workplaces, bars, restaurants, cafes, shopping malls, schools, hospitals, and all forms of public transport, including trains, taxis and ferries[34]. Smoking was first banned in 1997 in public buildings with more than four workers, as well as planes and public buses[35].

On 3 January 2008, Turkey passed a law banning smoking in all indoor spaces including bars, cafés and restaurants. It also bans smoking in sports stadia, and the gardens of mosques and hospitals. The smoking ban came into force on 19 May 2008; however, bars, restaurants and cafes were exempted until mid-July 2009. On 19 July 2009, Turkey extended the indoor public smoking ban to include bars, restaurants, village coffeehouses and nargile (hookah) bars[36].

3.2.2.17 United Kingdom

Smoking bans were introduced in each country of the United Kingdom separately as decided by the devolved administrations in Scotland, Wales and Northern Ireland, and the U Parliament acting for England. Since 1 July 2007 smoking bans have been in effect across the whole of the UK.

3.2.2.18 England

Smoking became banned in indoor public places in England, including workplaces, bars, clubs and restaurants, from 1 July 2007. Some places, such as certain smoking hotel rooms, nursing homes, prisons, submarines, offshore oil rigs, and stages/television sets (if needed

---

[33] http://www.kriminalvarden.se/templates/KVV_InfopageGeneral.aspx?id=4846

[34] http://news.bbc.co.uk/2/hi/europe/8157747.stm

[35] http://www.turkishdailynews.com.tr/article.php?enewsid=92824

[36] http://news.bbc.co.uk/1/hi/world/europe/7407985.stm

for the performance) are excluded. Palaces were also excluded[37], although members of the House of Commons and the House of Lords agreed to ban all smoking in the Palace of Westminster[38].

3.2.3 Lack of smoking bans

Some countries have no legislation against smoking whatsoever. These countries include Cameroon, Central African Republic, Chad, and many other countries in Central and Western Africa, where people can smoke wherever they want and often culture is in favor of the smoker.

3.3 euFAQT countries

In central and eastern Europe **the participation of non-government organisations and local communities in tobacco control is still limited**. These countries have to apply for government or European Union support and, in many cases, are too weak to contribute separately to these programs.

3.3.1 BULGARIA (acc. Bulgarian Country Report)

Tobacco control in childhood and adolescence Legislative measures aimed to reduce tobacco smoking among young people.

The main directions in tobacco control in childhood include measures to restrain the access of children to tobacco products, measures to secure the right of children to live and grow up in an environment free from tobacco smoke and measures to destroy the false image of tobacco smoking as a "normal", social prestigious and permitted by the law behavior.

[37] http://www.parliament.the-stationery-office.co.uk/pa/jt199899/jtselect/jtpriv/43/4309.htm

[38] http://news.bbc.co.uk/1/hi/uk_politics/6273830.stm

Quite conditionally we can divide legislative measures in 2 directions: measures directly associated with child smoking and measures indirectly influencing smoking in childhood.

A. Legislative measures directly associates with child smoking

Legislative acts associated with advertising and sponsorship of tobacco goods; smoking in workplaces and public places; in health and educational premises forms of retail trade of tobacco goods, including minimal age of purchase; forms of indirect retail trade etc.;

Legislative acts, determining so called "identification and legal regulation of the products" including information for the consumer as regards the level (concentration) of the harmful and toxic substances in cigarettes (nicotine, tar, carbon monoxide), the possible negative consequences for health from the usage; here are included the so called health warnings:; the determined number of pieces of cigarettes in a consumer package and the ban of purchase of cigarette packs with broken entity of the consumer package, sell of single pieces of cigarettes etc.

All of the measures mentioned here and mostly in the last part are significant for the population as a whole but have greater significance for the youth population for restricting youth access to cigarettes, children's direct information but also the information for parents, teachers, pedagogues, governmental institutions and society for adopting the necessary measures for protection of children.

B. To the second part of legislative measures belong the fiscal measures, mostly the excise duties, measures against smuggling and illegal import in which on the ways of fiscal and legal- regulatory mechanisms can be achieved limitation of accessibility of the product.

1. Legislative measures directly associated with youth smoking

1.1 Advertising and Sponsorship

Legal regulation is accomplished by the Radio and TV act and the Health Act

The Radio and TV Act (Promulgated in the SG N 138/24 November 1998)

- Advertising cannot encourage behavior harmful for the health or personal security of citizen, a well as behavior that destroy environment (Art. 75/2/)
- In advertisements directly pointed out to children or in which children are participating everything that is influencing negatively for their physical, mental and moral development must be avoided
- Advertising directed to children must not call minors to buy goods taking advantage of their immaturity and trustfulness (Art. 76/4, paragraph 1)
- Advertisements cannot use means of subconscious inspirations (Art.77/1)
- Hidden advertisement is forbidden (Art. 77/2); and the most important texts
- Any advertisement of cigarette goods and tobacco smoking is banned (Art.80/2) and for the sponsorship
- Sponsors for broadcasts and TV cannot be people whose basic activity is production of goods and services prohibited for advertising (Art.90/2)

At the moment all legislative texts concerning advertising and sponsorship are included basically in the Tobacco and Tobacco Goods Act (Promulgated in SG N 101/30 November 1993).

Below are mentioning the most significant texts, related to children's smoking.
Art. 35(1). Advertising of tobacco and tobacco goods is prohibited with the exception of:

1. Territories of enterprises, where tobacco or tobacco products are produced (processed)
and sites where retail trade with tobacco and tobacco products is carried out.

2. Use of brand mark, in the advertising of which does not take part persons below 18 years and the advertisement is not dedicated or directed to them.

3. Places or events to which access of persons below 18 is prohibited.

4. Advertising of tobacco and tobacco goods in radio and TV broadcasts is prohibited.

5. Advertising of tobacco and tobacco goods in the press and other printed editions and through the services of the information society is admitted only for publications (professional ones, in tobacco industry and trade, third countries not belonging to the EU market etc.).

6. Any other advertising of tobacco and tobacco goods in the press and other printed editions and through the services of the information society is prohibited.

7. Sponsorship from persons whose basic subject of activity is production or trade with tobacco and tobacco products is prohibited. (places and events are indicated).

8. Any form of distribution of tobacco products according to cases pointed out in paragraph 5, point2 aimed to direct or indirect popularizing of tobacco goods is prohibited.

9. Art.50. For breaches and violations of the regulations in Art.35 penalties vary in between 15000 up to 50 000 plus a property sanction from 50 000 to 100 000 lv. (BGN).

1.2 Smoking in workplaces and public places, educational and health establishments.

Legislative regulation of the problem:

- The Health Act (Promulgated in SG N 70/10.08.2000, enforced from 01.01.2005;
- Regulation for the conditions and order by which is admitted as an exception tobacco smoking in detached zones of work places and covered public places (adopted with Governmental Decree N 329/2004, Promulgated in SG N 11/2004)

The Health Act

Art..56/1/.Tobacco smoking should be banned in covered public places including public transport and covered workplaces;

/2/. The Council of Ministers should determine by a Regulation the conditions and terms in which tobacco smoking should be admitted in detached areas of places according to paragraph 1.

Art. 218 (1). Whoever violates art.54 and Art.56 should be punished by a fine of 50 t0 100 lv BGN, for repeated breaches the penalty should be in between 100 t0 300 lv. BGN.

1.3 Tobacco trade on the domestic market

In this part we are regarding the legislative texts regulating the minimal age of purchase, the places in which selling cigarettes should be banned, the policy towards the forms of indirect trade (free samples, vending machines, order by post or Internet), consumer packages etc. We can say that relatively better is regulated legally the minimal age of purchase but the problem is that it is not observed.

The Tobacco and Tobacco Products Act, in Chapter 10- Trade with processed tobacco and tobacco products (amended 1998), art. 29and 30 determine the terms and conditions for trade on the domestic market and the control over the sales of tobacco products. Prices of cigarettes are fixed with a decree of the Council of Ministers.

More important for us is the legal text in art. 30 /2/, in which are pointed out all important bans of sale of tobacco products. Such are: paragraph №1- on the territory of nurseries and kindergartens, schools, dormitories and boarding houses for pupils, health and educational establishments. Paragraph 2- bans tobacco sales to and by minors below 18; paragraph 3- bans sale of cigarettes from a broken entity of the consumer package; Para 5 – which don't correspond to the health requirements; Para 10- prohibits selling cigarettes as loose goods, open packs and single pieces;

Other paragraphs correspond with the other indirect forms of trade: N 11- prohibits sales of cigarette products fro vending machines; self service displays, N 12- bans sales of cigarette

products for oral use; 16- bans sells of cigarettes on public events organized for children and students. We still don't have legal texts for all forms of indirect trade with the explanation that they are not still introduced in practice. There exists certain precedents as distributing cigarettes as free samples on some promotions of goods but there is not specific legal text and they are not usually reviewed in press.

1.4 Identification and legal regulation of the product

It is regulated legally with:

- The Health Act, art..30 /2/paragraph . 7;
- Regulation for the Requirements to Labeling, Marking and Outer Shaping of the Tobacco Products and for Determining the Standards for Assessment of the conformity of Contents of Harmful Substances in Cigarettes (adopted with Governmental Decree N 184/2004)

The maximal admissible levels of toxic substances in cigarettes are determined in concordance with the requirements of the Tobacco Act, the Regulation (cited above) and the International standards on ISO. They are as follows:

- maximal admissible level of tar is up to 15 mg per cigarette (by 31.12.2004) and decreases for each following year with 1mg (per year) and up to 31.12.2110 to reach 10 mg per cigarette
- maximal admissible level of nicotine should be up to 1mg per cigarette
- maximal admissible level of carbon monoxide should be up to 10mg/cigarette from 31.12.2006

The health warnings have been included as a legal text previously in the Tobacco Act and the Health Act. Now they are included in Supplement N 5 of the Regulation for the requirements as a list of additional warning labels. This is an attempt to approximation with the EU legislation.

B. Legislative measures for tobacco control influencing indirectly smoking in youth and adolescence. These are mostly fiscal measures with the aim to restrict the access of children to cigarettes by the means of prices and excise duties: They are determined in congruence with:

The Tobacco Act (art.29/1/; The Excise act (art.37,38, 39); Regulation for the conditions and terms for registering prices for tobacco goods (domestic products and import and the control over trade)

Following the requirements of WHO, in the Health Act, art. 53, paragraph 3 has been included a text according to which 1% from the excise from tobacco products and alcohol drinks entering the state budget should be allocated for promoting activities and financing national programmes, which is not effectively used (the legal text is enforced from 01.01.2006).

The tobacco control policy is proven the most effective weapon for decreasing the trends in the prevalence of tobacco and morbidity and mortality associated with tobacco use. According to WHO estimates in the beginning of 70,s of last century Bulgaria has been

On the first place in implemented bans for smoking in public places and transport. However it did not lead to significant decrease in consumption. Public opinion as a whole remained unchanged. For the passed 25-30 years measures lead to insignificant results. Anyway, the new thinking in the field of public health and the philosophy of health promotion are an effective tool. The new realities in the first decade of the new century, associated with the necessity of adopting the FCTC and especially the adoption of Bulgaria in the EU from 2007 are a strong challenge for the public health in Bulgaria and tobacco control as well.

3.3.2 GREECE (acc. Greece Country Report)

Tobacco legislation

According to the latest antismoking legislation (law 3730) smoking in Greece is banned from all public and private workplaces – including schools and hospitals - from all venues that serve food and beverages, waiting areas, public transportation and airports – apart from specially designated areas. This law came into force on the 1st of July 2009 and replaced law 76017/29/07/2009 which did not ban smoking entirely across public areas. Although very ambitious the new law has to a great extent failed mostly due to certain loopholes allowing

small cafes, bars and restaurants to determine their status as smoking or non smoking areas. The Greek government is planning to institute a complete smoking ban in all public areas without any exception. It is not clear at the moment when this new law will come into force. Critics of the antismoking legislation emphasize the need to complement legislation with an organized antismoking campaign targeting different sectors of the population (employees, adolescents, women etc).

Although smoking is banned in schools it is quite usual for teachers to openly smoke in school yards while smoking among students on school grounds is widespread across Greece especially in high schools.

Conclusions

Summarizing the Greek situation in terms of smoking among adolescents we can conclude the following:

- Smoking is a problem among Greek adolescents especially those aged over 15 years old
- Both boys and girls are regular smokers
- The percentage of parents who smoke in Greece is very high. Consequently young people are exposed to smoke in most of their surroundings
- The law regulating smoking in public areas is not enforced, thus although forbidden most people smoke freely in public areas including especially public eating and drinking venues
- Although selling cigarettes to minors is forbidden by law this is not practiced. Cigarettes can be easily purchased by anyone in Greece regardless of their age
- Initiation of smoking among adolescents is influenced mostly by friends. The influence of parents and other relatives is also significant
- Smoking is a culturally accepted behaviour especially among males
- Greece is a tobacco producing country and smoking is even more so accepted in these areas
- There is no organised campaign against the use of tobacco
- There is no organised health education system in schools

3.3.3 HUNGARY (acc. Hungary Country Report)

Hungarian National Legislative acts relating to smoking.

11/1994. (VI. 8.) MKM ordinance about the functioning of educational institutions

The educational institution's staff is allowed to smoke segregated for the children in specially designed places for this.

The school- isolated the young students- is allowed to design for the older students a place where they can smoke.

51/1997. (XII. 18.) NM regulation under the compulsory health insurance is available for health services concerning disease prevention and early detection and the justification for screening

Among the screening investigation there is exploration of lifestyle risk factors for ages between 6-18 years (tobacco, alcohol and drug use, sexual activity)

19/2002. (V. 8.) Regulation of the Ministry of Education concerning the location of institutions and the architectural design and technical requirements.

The place ensured for a smoker in kindergarten, or school, or college must be at least 15 square meters floor area. Mechanical ventilation is required.

2005. CLXXXI. Protection of non smokers modification of 1999. XLII. , 36. §; - 37. §; - 38. §; 39. §; - 40. §.

Significant modification of the previous laws. Protection of the non-smokers by smoke free offices, hospitals and schools. Obligatory separate smoking area for smokers.

The list of national (regional) health strategy/policy documents concerning the tobacco prevention and cessation among adolescents.

International experience indicates that policy and administrative measures are the most effective tools in controlling tobacco. Regular tax raises, sponsorship and point-of-sale advertising bans, decrease of harmful substance content of cigarettes, creation of smoke-free environments, and introduction of financial mechanisms for ensuring sustainable funding for

tobacco control interventions are policy measures still to be adopted to form a comprehensive tobacco control policy mix in Hungary. The threats or impediments, which are expected to endanger the adoption and implementation of such a comprehensive policy in Hungary are presented in the table below.(Szilágyi 2003)

Problem	**circumstances in which the problem emerged**
there is no systematic review of the impact of policies taken against smoking in Hungary	the parliamentary committee on health and social affairs has recurrently called for research on the effectiveness of tobacco control policy measures.
enforcement of tobacco related laws and regulations is still weak	there are no incentives aimed at strengthening the work of agencies responsible for the enforcement of tobacco-related regulations, no enough personnel and financial resources for performing regular controls
no regular communication of efforts of the anti-smoking community towards the public, the media and decision makers	there are similarities and overlapping among programs and activities, resulting in a waste of time and resources
there is no co-ordinated advocacy work promoting the introduction of best international practice and further legislative and regulatory measures	the promotion of the establishment of a dedicated group (in the health ministry) for co-ordinating tobacco control efforts information of decision makers on the roles and impact of tobacco control interventions is inadequate there is a lack of knowledge around the scope of the Framework Convention on Tobacco Control
there is a lack of advocacy (media and policy advocacy) skills in communities and groups working in tobacco control	insufficient media coverage of internationally proved effective tobacco control interventions to the media and decision makers

(e.g. health professionals, health educators, medical students, NGO representatives, the media and decision makers)	
tobacco industry's PR and communication is still more effective	TI was successful in persuading the previous government on the call for derogation in the introduction of minimum EU tobacco tax level a BAT director was awarded with a medal for the company's contribution to solving social problems of the community
there is a gap in the communication of research data and their use for planning and founding of further policy measures	there is no regular communication between professionals working in tobacco control there is no Hungarian tobacco control policy website there is no regular forum for experience sharing of tobacco control advocates
derogation request of the Hungarian government on the introduction of the EU minimum tax levels in Hungary (submitted to the EU in April 2002)	in the wake of 2002 parliamentary elections the former government, learning about their defeated position submitted a derogation request

3.3.4 POLAND (acc. Polish Country Report)

The introduction of a smoking ban was attempted in Poland in 1999. The attempt failed because of the significant resistance of restaurant-owners. A compromise was reached – that according to the Polish law premises could include at least two separate rooms, one assigned to smokers and one to non smokers. In premises with only one room an owner could box off a part of it for the use by smokers.

Poland, not following suit of other countries, has not yet introduced strict anti-tobacco laws. Although, owing to the amended anti-tobacco act, Poland has joined the group of EU countries, which have been practising a smoking ban in public places for a few years**.**

Countries belonging to the European Union brought into force the ban of using words such as "light" and "mild" on the 30th of September 2003, and acceptable norms of presence of nicotine and tar – since January the 1st 2004. Poland did not claim a transitional phase in this field. Regulations are binding Polish tobacco manufacturers since our EU accession.

The Poles are a nation brought up on the bans that commonly evoke antagonistic reactions. Poles arte not in favour of bans and often don't comply with them contrariwise. An example of this behaviour is the smoking ban stipulating that restaurants and cafes should have a aseperate area for smokers and non smokers. Despite the law many owners allow smoking in the whole area of their establishment.

The Ministrer of Health, Ewa Kopacz, emphasises that bans and orders are not the best solution in the case of tobacco smoking restriction. She believes that attention should be given mostly to social education concerning this scope. **Krakow's MANKO Association** prioritises this kind of education and as an organiser of the national social campaign "Premises without Tobacco" [in Polish], and "Don't be passive" ("Lokal Bez Papierosa.pl. Nie bądź biernym"), implemented since **March 2007** and has been paying attention to the problems of passive smoking and promoting areas free of nicotine smoke.

3.3.4.1 Origins of tightening the regulation on the introduction of total smoking ban

- Cigarette smoking or use of tobacco in any other form (cigar, pipe, snuff, chew) has a negative impact on health, length and quality of life
- Victims of cigarettes are not only the smokers themselves, smoking much more harm to persons in the immediate vicinity, they become passive smokers and are exposed to everything that a man lighting a fire, the side stream contains higher concentrations of carcinogens known and has a smaller particle size, which can be easily inhaled into the

lungs, contains 35 times more carbon dioxide and four times more nicotine than the smoke inhaled by active smokers

- Due to tobacco smoking 70 thousand people in Poland die annually.
- Approx. 9 million Poles smoke 15-20 cigarettes regularly on the daily basis,
- Daily, 500 under-age boys and girls start smoking,
- During a year 180 thousand of children try to smoke

3.3.4.2 LEGISLATION CONDITION IN POLAND – chronologically

1974, June 4: Ordinance of Ministry of Health and Social Care referring to tobacco smoking restriction in regards to health issues

Journal of Law 1974, No 22 pos. 135 (Dz.U. 1974 nr 22 poz. 135)

- Introduction of a tobacco smoking ban in the organisation units of Health and Social Care Department.
- Issuing of recommendation of smoking limitation for the other departments.
- With regard to low awareness of passive smoking influence on health is was a „dead law"
- Smoking in hospitals and medical centres was common phenomenon

The 1980s

- First rank-and file PROPOSITIONS of legal regulation occur.

1995, November 9: Act of health protection from the results of usage of tobacco and tobacco products

Journal of Law 1996, No 10 pos. 55 with the further amendments (Dz.U. z 1996 r. Nr 10, poz. 55, z późn. zm.)

- Article 5th includes the entry about Smoking BAN outside the boxed off and properly adapted rooms in medical centres, schools, education and care institutions, workplaces and other utility objects.
- However, it is not a strict ban because it allowed smoking in the designated areas.

- It consists of 17 Articles wherein only Article 5th refers to prohibition of smoking outside the designated areas
- Art. 6 Sale bans of tobacco products to under-aged (under 18).
- Art. 7 Production ban of odourless production excluding snuff.
- Art. 8 Advertisement and promotion ban of tobacco products.
- State supervision over tobacco product content – Art. 8a and 8b, Art. 10
- Order of information placement referring to smoking results – Art.9
- Art. 11 Treatment of nicotine addiction is free of charge
- Art. 12, 12a and 12 b includes information about the fines and restriction of freedom in reference to illegal trade, dishonest information regarding harmfulness, entry of additives leading to stronger addiction amounting from 200 thousand to 500 thousand PLN.

2004, February 24: Ordinance of Health Ministry in reference to the researches of content of some of the substances in the tobacco smoke and information and warning placed on the packaging of tobacco products

Journal of Law 2004, No 31, Pos. 275 (Dz.U.2004 r. Nr 31, poz.275), and

2006, July 26, Ordinance of Health Ministry Ordinance of Health Ministry in reference to the researches of content of some of the substances in the tobacco smoke and information and warning placed on the packaging of tobacco products

Journal of Law 2006, No 142, Pos. 1025 (Dz.U. 2006 r. Nr 142, poz.1025)

- They determine the maximal allowed in Poland content of tar, nicotine and carbon monoxide in the tobacco smoke and in one cigarette. (10 mg, 1 mg, 10 mg)
- They determine the method of establishing and include the list of control laboratories authorised to set the content of these substances (Laboratory Department for National Control of Harmful Substance in Tobacco Products stationed by Voivodship Sanitary-Epidemiology Station in Lodz and other laboratories granted the Union accreditation) as well as text, graphic layout and way of placement regarding information about the harmfulness of tobacco use.

2004, December 21: Ordinance of Health Ministry in reference to scope of health care welfare, including screening and periods when the tests are to be performed

Journal of Law 2004, No 276, Pos. 2740 (Dz.U. 2004 r. Nr 276, poz.2740)

- § 7. point1. of this Ordinance includes the entry referring to the matter that in order to counteract disease cased by tobacco **a doctor should pass the information concerning harmfulnes of tobacco smoking** to his patients, set optimal way of addiction treatment with them and during each visit of the addicted patients should estimate the progress of addiction combat.

Since 2006

- The Polish Parliament works on amendment to an act, which would introduce strict smoking ban in all public places.

2010, April 8 text of the Act agreed finally after consideration of Senate amendments in reference to the act of health protection from the results of tobacco and tobacco products use and the act about State Sanitary Inspection. **(Awaiting for the signature of Polish President) so-called ANTI-NICOTINE ACT applying the amendments to the act from 1995**

In support of the draft amendment to the Act, inter alia, underlined that approximately 9 million Polish people smoke regularly from 15 to 20 cigarettes a day. Each day begins to burn about 500 minors. Should also be pointed to the problem, which is passive smoking. As stressed, burned cigarette emits twice as much smoke from the side than the main stream. Side stream contains 35 times more carbon dioxide and four times more nicotine than the smoke inhaled by active smokers.

From 15 November 2010 will apply to most of the provisions of the amended law on protection of health against the consequences of tobacco use and tobacco products.

The new rules provide that the Minister of National Defense, the Minister for Internal Affairs and Minister of Justice shall determine, by regulation, the detailed conditions for the use of tobacco products in facilities under their jurisdiction and the measures to carry passengers, including the need to preserve jobs, education and service as free zones smoke and to protect non-smokers from tobacco smoke.

- It is forbidden to sell tobacco products to persons under the age of 18

- The new rules generally prohibit smoking of tobacco products in health care facilities and other indoor facilities where health services are provided, within the organizational units of the education system, referred to in the provisions on the education system and social welfare agencies, referred to in the provisions on social assistance, as well as indoor workplaces other than those listed. The amendment prohibits the smoking of tobacco products also on campus, in areas of culture and leisure facilities for public use, as well as catering and entertainment premises
- ban on smoking tobacco in public places for play for children, as well as in other areas available for public use
- It is forbidden to retail sale of tobacco product **in self-service system** excluding duty-free shops – legislator wants to protect the under-aged whose ID cards are not checked in the shops
- A person, who owns or manages may designate a smoking place: in the social care houses, elderly care houses, hotels, tourist services places, universities, factories and plants, gastronomical-entertaining premises
- This project assumes **smoking ban in private means of transportation** such as the cars for the drivers during the drive and while in a car are the children under 13 years
- **This project introduces smoking ban also among others in public transportation means –** taxis, business cars and in the public places assigned to relaxation and recreation of children and at the urban transport stops
- Smoking will be prohibited to the soldiers in the military units. It means in practise that smoking will be possible only in the houses and on the streets excluding the bus and tram stops
- Total ban – without possibility to box off a place for the smokers – is to include the hotels, student hostels, youth shelters, and monastic houses
- Unified are also sanctions for not complying with the provisions of the Act. For breaching the ban on the smoker can be fined in the amount of 500 zł. For not putting in place or vehicle information on the smoking ban has threatened a fine of two thousand. zł. The Act also provides for the prohibition of tobacco sales via the Internet, allows for the production and marketing of so-called e-cigarette

- **Intensified are the regulations referring to cigarette advertising** – it is forbidden among others: „dissemination of announcements, tobacco product brand images or symbols associated with them“ and promotion which is public give-aways, sampling meetings
- Health Commission supported the senators' proposal to not create the smoking rooms in schools, medical centres and education objects

Certain provisions of the amended law on the protection of health against the consequences of tobacco use and tobacco products will come into force on 15 May 2012 in accordance with these regulations, the packaging of tobacco products intended for smoking, other than cigarettes, occurring in retail trade, the most visible, biggest plane surfaces are greater than 75 cm2, the warnings about the dangers of an area of not less than 22.5 cm2 for each of these levels.

3.3.4.3 FEAR FROM ACCEPTANCE OF ANTI-NICOTINE ACT PROJECT

1. Arouses the anxiety among the gastronomical-entertaining premises owners.

- Quantity of customers is to be decreased if the premises will be under the smoking ban
- The results of the researches form the countries, where the legislative changes has been introduced, did not indicated the significant changes related to the drop of turnover of such premises

2.Changes **are to re-echo not only on health but also on the finances (budget) of the country**

- With decrease of harmful health and social results of smoking, in large measure the expenses on the public health care and treatment of tobacco-caused diseases will be reduced On the other hand, budget earns a lot on the Polish smokers

3. Accusation that the new project of the act is **an attempt against basic civil rights** such as freedom of choice guaranteed by Constitution.

4.Fears, that in the case of Polish people among who is difficult to enforce law, the act amendment is going to be **another „dead“ regulation**.

3.3.5 ROMANIA (acc. Romania Country Report)

Pictorial warnings and young students

The World Health Organization Framework Convention on Tobacco Control states that tobacco products must “carry health warnings describing the harmful effects of tobacco use” and “should appear on both the front and back of package, be large and clear and describe specific illnesses caused by tobacco.”

Tobacco packaging information is critical in providing information about tobacco health risks. In particular, warnings that contain colourful, graphic pictures in addition to text information are the most effective at tobacco prevention. This type of prevention is likely to be highly effective with young people.

Since July 2008 in Romania pictorial warnings were introduced according to directive 2001/37/CE of the European Parliament. A study, performed on students aged 18-28 years from Bucharest University, reveals that more than half of smokers group (55.6%) have declared they thought more of smoking risks and cessation after the implementation of pictorial warnings and almost half of smokers (45%) used or expressed the intention to cover the pictograms. The study’ conclusions were that pictorial warnings are expected to have positive impact, but have to be changed frequently and accompanied by continuous education from health institutions, addressed also to families and teachers. (20)

Romanian Tobacco Control Legislation

In 2005 the Romanian Government approved the ratification of the FCTC and Romania has become the 120th Party, in chronological order of ratification**.**

- **Law no. 349/2002 that came into force in December 2002** - the **main Law regarding preventing and fighting against the effects of the use of tobacco products** is. Since 2002 different laws and ordinances have modified the main law: Ordinance 13/ 2003, Law 275/2003, Law 553/ 2004, Law 90/ 2004, and Ordinance 58 / 2006
- **the Ministerial Ordinance (13/2003)** completed the law by adding an amendment about a **total smoking ban inside health units** and another amendment with details for warnings and items to be written on the cigarette packs (in example the quantity of dangerous components)
- In 2009, come into force the **Ordinance 5/ 2008** with the last modification to the law for preventing and fighting against the **effects of the use of tobacco products**. Certain amendments from this ordinance were already applied since 2008 but some special provisions (including the provisions governing the ban on smoking in public places) will be applied starting with 30th of January 2009

The existing law imposes a total smoking ban in health institutions, both private and public. Smoking is banned in enclosed public places, with the exception of designated smoking rooms.

Starting with 1st January 2009 smoking rooms must fulfil some mandatory requirements:

- to be used only for smoking,
- to be not passageways,
- to have a functional and independent ventilation systems,
- to have ashtrays and fire extinguishers, and
- to be visibly marked.

The law provides the following definitions:
"Enclosed public places = all places in public institutions, at central and local levels, as well as economic institutions or companies, also hospitality, trade, public and private institutions for culture, education, sports, all public transportation, bus/train stations, airports, including enclosed spaces in workplaces or any other spaces provided by the law."

"Enclosed places in the workplace = all places in buildings, such as industrial buildings, storage buildings, meeting rooms, halls, lobbies, passageways, toilets, elevators, offices, and rooms."

Smoking in bars, restaurants, discotheques and all other spaces with a similar function is allowed in areas special arranged for smoking; the special requirements for these smoking rooms come into force from 1st January 2009 and are as following:

- the smoking rooms must be less than 50% of the entire area of public space,
- must be not passageways, and
- must have functional ventilation systems.

If the area of any bar, restaurant, discotheque or other space with a similar function is smaller that $100m^2$ the owner or the manager can decide about making the space entirely and solely for smokers or for non-smokers.
Starting with July, 2008, Romanian Legislation has introduced, through the **Order no. 618/ 2007,** pictorial warnings that will be mandatory on all tobacco packs on the Romanian market. It is permitted until January 2009 the coexistence on the market for tobacco products with and without pictograms for permitting the tobacco producers to liquidate the stocks of tobacco products without pictorials.

The Ministerial Ordinance no. 6/2008 has modified and has completed the **Law 457/ 2004** regarding the advertising and sponsoring for tobacco products. It establishes the requirements related to tobacco publicity: the tobacco publicity is banned in the cinematographs, theatres, other halls and in written mass media.

REFERENCES

Electronic sources:

(1) "36-601.01 - Smoke-free Arizona act". *Arizona Revised Statutes Title 36 - Public Health and Safety*. Arizona State Legislature. http://www.azleg.state.az.us/ars/36/00601-01.htm. Retrieved 18 Jun. 2009
(2)Barendregt JJ, Bonneux L, van der Maas PJ (1997). "The health care costs of smoking". *N Engl J Med* **337** (15): 1052–7. doi:10.1056/NEJM199710093371506. PMID 9321534.
(3) New health bill will ban smoking in majority of workplaces". 28 October 2005. http://www.direct.gov.uk/Nl1/Newsroom/NewsroomArticles/fs/en?CONTENT_ID=10027079&chk=5r8ic9. Retrieved 5 Sep. 2006
(4) WHO Framework Convention Tobacco Control, (http://whqlibdoc.who.int/publications/2003/9241591013.pdf)
(5) 2009 Summary Report on global progress in implementation of the WHO Framework Convention on Tobacco Control, p. 30, (http://www.who.int/fctc/FCTC-2009-1-en.pdf)
(6) 2009 Summary Report on global progress in implementation of the WHO Framework Convention on Tobacco Control, p. 31, (http://www.who.int/fctc/FCTC-2009-1-en.pdf)
(7) EUObserver MEP calls for EU ban on cigarettes by 2025 18 July 2008
(8) http://www.who.int/fctc/en/
(9) http://www.smokefreepartnership.eu/Spotlight-on-the-FCTC-issue-1
(10) http://www.smokefreepartnership.eu/Smoke-free-legislation-in-the-EU
(11) http://www.monstersandcritics.com/news/europe/news/article_1350131.php
(12) http://www.cnn.com/2009/TRAVEL/getaways/03/05/austria.germany.travel/index.html
(13) http://www.nieuwsblad.be/Article/Detail.aspx?ArticleID=G692344PG
(14) http://news.yahoo.com/s/afp/cyprussmokinghealth
(15) http://www.jp.dk/kbh/artikel:aid=4307326/
(16) http://www.legifrance.gouv.fr/texteconsolide/ADEAN.htm
(17) http://news.bbc.co.uk/1/hi/world/europe/7163178.stm
(18) http://www.eu2004.ie/templates/standard.asp?sNavlocator=3,242,455
(19) http://www.alertnet.org/thenews/newsdesk/L03723356.htm
(20) http://tobaccocontrol.bmj.com/cgi/content/extract/15/2/79
(21) http://www.sweden.se/templates/cs/Article____13429.aspx
(22) http://www.kriminalvarden.se/templates/KVV_InfopageGeneral.aspx?id=4846
(23) http://news.bbc.co.uk/2/hi/europe/8157747.stm
(24) http://www.turkishdailynews.com.tr/article.php?enewsid=92824
(25) http://news.bbc.co.uk/1/hi/world/europe/7407985.stm
(26) http://www.parliament.the-stationery-office.co.uk/pa/jt199899/jtselect/jtpriv/43/4309.htm
(27) http://news.bbc.co.uk/1/hi/uk_politics/6273830.stm

CHAPTER IV

Anti-smoking interventions among youth

4. 1 General issues- types of interventions

4. 2 Evaluation of the basic types and models of interventions

4. 3 Conclusions

4.1 General issues - types of interventions

Anti-tobacco interventions are the overall activities undertaken in order to limit cigarette smoking. Interventions may be designed with social groups in mind (e.g. school-based, community-based) as well as with individuals in mind (individual disaccustoming therapy). Basically, anti-nicotine interventions are based on prevention of behaviours connected with smoking (experimenting, addiction) or with smoking cessation. Anti-nicotine interventions may be qualified in many different ways and it would be difficult to quote one single best criterion which would enable their division. The following division is quite commonly accepted: (1)

- ✓ School based
- ✓ Community interventions
- ✓ Mass media/public education
- ✓ Advertising restrictions
- ✓ Youth access restrictions
- ✓ Tobacco excise taxes
- ✓ Direct restrictions on smoking.

Intervention activities may be divided in accordance with four functions: service delivery, financing, resource generation, stewardship (2). An attempt of division following two different criteria is quoted below. It should be noted, though, that the qualifications are of only relative usability and that they are by no means perfect. Divisions are not separable and some elements may be placed differently (for example family may be not only the target of an intervention but also its initiator or performer; it may also be an instance creating bans connected with smoking). The division by setting (a subject supplying intervention) seems to be important. We may distinguish:

1. Clinical interventions (realised by physicians, nurses, therapists and other health-care employers)

2. Family-based interventions (in a family, realised with parents or siblings)

3. School-based interventions (at schools, realised by teachers, pedagogues and psychologists)

4. Community-based interventions (at local community level, realised by many different institutions)

5. Government policy related to smoking (supervised by the state)

Another significant criterion is the type of tool used (intervention technique). We may distinguish:

1. Pharmacological treatments
2. Psychological approach (intervention aimed at an individual)
3. Social support (for example peer support)
4. Family approach (intervention aimed at the whole family)
5. Traditional self-help materials
6. Telephone-, online-, and computer-based tools
7. Media based health promotions (including health warning on the packs of cigarettes)
8. Smoke related prohibitions (in a family, at school, in a community, on the state level)
9. Economic approach (excise duty)

4.2 Evaluation of the basic types and models of interventions

The evaluation of particular interventions is presented below. It should be remembered that other authors categorize interventions differently than how they are presented in this report.

Pharmacotherapy. The core of the pharmacological approach to counteracting smoking is the use of chemical substances whose aim is to liquidate or diminish physical addiction and reduction of psychological results of withdrawal. Pharmacological treatments, such as nicotine replacement therapy and bupropion (antidepressant acts as a nicotinic receptor antagonist) have not yet been sufficiently tested in adolescents and seem to be ineffective. Some authors indicate the efficacy of bupropion in diminishing psychological discomfort, urge to smoke and other withdrawal symptoms accompanying smoking cessation (3). However, authors who studied bupropion effects on smoking cessation among adolescents found no significant difference between using nicotine and a placebo, and using nicotine and bupropion. Nevertheless, the bupropion group after receiving treatment consumed fewer cigarettes (4). Nicotine patch therapy (plus minimal behavioural intervention) does not appear to be effective for treatment of adolescent smokers (5).

Psychological approach. According to the psychological approach skills, beliefs and qualities of an individual are of importance. Psychological methods are supposed to help an individual in quitting destructive and in keeping constructive health attitudes and behaviours. Behavior changes are to be achieved through:

- increasing consciousness awareness of the problem connected to health behaviour
- helping an individual in their emotional development, by teaching them social skills or stress reduction techniques
- increasing self-esteem and a sense of control etc.

Such methods are commonly used within school based interventions. Within this frame three models may be distinguished (6).

a) Information-Deficit Model. The premise of this model is that youth are generally misinformed about the risks of smoking and that educating them on the negative health effects of smoking will provide a deterrent. Informational programs are implemented using most forms of media: books, pamphlets, posters, films, lectures. Programs based on the information

deficit model have been found to be generally ineffective in deterring initiation or reducing smoking, although many of them were not evaluated sufficiently.

b) Affective Education Model. Programs attempt to influence beliefs, emotions, attitudes, intentions, and norms related to tobacco use. Activities are focused on enhancing self-esteem and values clarification. These programs include self esteem and self image enhancement, stress management techniques, values clarification, decision making skills, goal setting. Educators hypothesized that focus on increasing self-worth positively affects many problem behaviours (such as low motivation to achieve, school absenteeism, and antisocial behaviour) including smoking problems. Evaluation findings for this type of intervention have suggested a weak or insignificant impact on tobacco use.

c) Social Influence Resistance Model. Within the frame of this model programs emphasise the social influences of an individual, such as peer behaviour or attitudes (both positive and negative), and certain aspects of the environmental, familial, and cultural contexts. This type of intervention focuses on building skills needed to recognize and resist negative influences and social pressures including recognition of advertising tactics, peer influences, communication and decision making skills, and assertiveness. Prevention of smoking initiation must target students at an age when most initiation occurs (development of smoking behaviour actually begins when students are aged eleven or twelve). Programs based on a skills-resisting model should contain several components: information about the short-term negative consequences of tobacco use, an exploration of inaccurate beliefs about tobacco use, an examination of the reasons why students smoke, and practice of strategies for resisting the influences of tobacco use (refusal skills and other). The IOM report concluded that evaluations of interventions focused on social influences and teaching refusal skills have a significant but modest effect in reducing the onset and level of tobacco use.

School based curricula are programmes realised in schools and aimed at the community of pupils. They most commonly use a psychological approach and social support methods. Some studies have noted short term effects in delaying smoking initiation and a desirable change in attitudes toward tobacco of school based programs, but they are generally ineffective in the long term in preventing adolescents from initiating tobacco use (6-8).

Life Skills Program may be effective (9). Some authors also suggest that there are no positive effects of school-based programs, based on cognitive-behavioural interventions (motivational enhancement, training in the social and stress management skills), which does not mean that they will not bring benefits in the future when the participants achieve a suitable level of development. In this case, only studies with a longer follow up would be able to detect this type of delayed treatment response (10). We have to bear in mind that evaluation of school based programmes is very difficult due to the versatility of the programmes (the intensity level, content, quality of realisation) and various methodological rigor of analysis in the studies. For sure these programs are more effective when combined with other approaches such as media and smoke-free policies.

Family approach. Family is the context in which the new generation learns health and illness behaviours. The family unit is the primary source of transmission of basic social, cultural, genetic, and biological factors that may underlie individual differences in smoking. A family may generate the problem or protect against it or diminish it (11). A family approach to smoking prevention and cessation may be based on systemic theory and systemic approach to a family, where behaviour of each family member is regarded dependant on the behaviour of others (12). A teenager who smokes is considered a family problem and in order for an adolescent to quit tobacco cooperation and help of other family members is required. A family not only adopts interventions from the outside but as a system of interrelations it transforms them, enhances or weakens them. A family may also be the place where interventions are created – at least as a form of parental control over smoking. Although literature reviews findings show weak and inconsistent associations between parent and adolescent smoking, parental smoking is inversely related to smoking cessation through nicotine dependence (13,14).

A family is a system of interrelations, but the influence of parents on children is of much greater significance than the other way round. In the cognitive behavioural approach parent training methods are used to teach parents appropriate and successful methods of approaching adolescents. In this way parents may learn skills enabling modification of adolescents' behaviour. The method uses techniques sush as: providing educational material, oral instruction, modelling (teaching new parental behaviours by demonstrating), prompting,

shaping, and rehearsal (a therapist shapes parent's behaviour observed when interacting with an adolescent on the spot), homework. The method may also be implemented in a form of telephone counselling with positive results (15).

The style of parenting (measured by the brief, non-retrospective version of the Family of Origin Scale) (16) is a significant independent risk factor for smoking initiation. Smokers who were more ready to quit had higher parenting style scores (high levels of intimacy and autonomy, characteristics of healthy parent-child relationships) than those who were not ready to quit, and smokers who had made a serious quit attempt had higher parenting style scores than those who had not made a quit attempt. Moreover, non-smokers who reported they would smoke a cigarette if their best friend offered had significantly lower parenting style scores than those who reported they would not smoke a cigarette (17). Young people's perceptions of parental support are inversely related to smoking, and a home environment perceived as unsupportive is associated with increased likelihood of smoking. In addition, smoking prevalence increases when perceptions of poor support are combined with reports of low level of control. Smoking prevalence raises among adolescents from single parent or reconstituted households, irrespective of perceptions of parenting practices (18). Teaching positive parenting, including facilitating intimate yet autonomous relationships may be considered as part of smoking prevention and cessation programs.

Researchers indicate that a greater frequency of quality of parent-child communications is negatively correlated with adolescent substance use (19,20). The results, however, may not be treated as unequivocal. A study on a large sample of American teenagers shows, that good communication with a mother is negatively associated with smoking among sons, but such influence of parent-children has not been observed in girls, which is contrary to the popular perception that girls are particularly influenced by interpersonal and family factors (21). All of that indicates that a family is a complicated system, and simple relations are hard to find. Family interventions should take into account differences between influence of mother or father on daughter or son.

Studies suggest that parent-based interventions aimed at teaching mothers of adolescent children how to communicate with children and parental monitoring strategies for preventing adolescent tobacco use may bring positive results boosting school-based intervention (22).

The main results point that interventions should be developed within the school setting, as well as within the family situations. There is efficiency of some family-based programs. For example adolescents whose parents engaged in the Family Check-Up exhibited less tobacco use (23).

From the research results that, adolescents, whose parents describe themselves as having rules concerning smoking at home or asking the others not to smoke in their presence, smoke more rare then their peers, whose parents don't have such rules (24). This refers also to families, where both parents smoke or don't smoke. Consequently, the behaviour and anti-nicotine actions of the parents may help in preventing adolescents from smoking.

Social support. When positive impact of a social group is an important factor counteracting smoking we may talk about methods based on social support. Studies show that peers and siblings attitudes towards smoking are of vital importance to shaping attitudes towards smoking in adolescents (25).

Such methods include e.g. peer education programs in which older students are trained to become positive role models for middle and elementary school students. An example is Teens Against Tobacco Use (TATU) (1). Findings suggest that peer-enhanced programs give some effect. Prevention campaigns targeting resisting peer pressure may be more effective in adolescent girls than boys because females more often are influenced to smoke by their peer group (26).

Self-help materials. Traditional print-based self-help materials for smoking cessation have no or, at best, very low efficacy (27). There is also video material eg. DVD.

Telephone-, computer-, and online-based interventions. There are methods where there is no "face to face" contact with an educator but it takes place from a distance (telephone, the Internet) or it is substituted by a computer programme. Their advantage is the fact that they are cost effective. Cessation quit-lines link motivational interviewing and behaviour therapy with pharmacological consultation. They may offer two types of services - reactive and proactive service. Reactive service means that counsellors initiate no contact but clients sign up for support and they are encouraged to call the service whenever they need it. Within the proactive service clients signing up for treatment are offered a call up service. There is

evidence that proactive telephone counselling helps smokers interested in quitting, especially when there are more than two calls (28). There are now quit-lines in 24 European countries and operational and service details for quit-lines in Europe, North America and Canada can be accessed via [http://www.naquitline.org/pdfs/NAQC_Quitline_06_by_pg.pdf]. Information on Australian quit-lines is available at [www.guitnow.info.au].

Unfortunately there are no binding data on how the proactive telephone counselling works in relation to adolescents. Probably some refinements in telephone-counselling approaches are needed to achieve the success observed in adult populations (29).

Online and computer-based smoking cessation programs offer an alternative to interventions which require trained personnel. The programs help users evaluate the benefits of quitting tobacco and suggest strategies for how to handle relapses. It may be especially suitable for young smokers because they prefer the flexibility and privacy offered by the Web and computer programs over face-to-face counselling. Web- and computer-based programs have a legitimate place in tobacco dependence treatment options (30).

Riley, Obermayer, and Jersino developed a Web-based and text messaging prototype program on the basis of self-regulation and trans-theoretical theories, which have served as the basis for successful smoking cessation and addictive behaviour interventions to college smokers. After initiating the program users were sent 1 to 3 text messages per day, at times likely associated with high-risk smoking situations, that encouraged them to experiment with refraining from smoking in specific situations to increase self-efficacy and mastery over urges to smoke. Based on own observations authors conclude that mobile phone text messaging is a potentially efficacious and easily disseminated method for providing cessation interventions to young adult smokers (31).

There are also online based programs with significant role of social support. These are programmes of peer e-mail support type. Online peer support with delivering Internet-assisted cessation programs to young adults may be an important strategy of cessation (greater peer engagement via e-mail is associated with increased smoking abstinence and reduced frequency of smoking) (32).

Media based health promotions. Media campaigns have the potential to reach large segments of the population, as well as those who are less educated, and to lower barriers of participation in health related programs (33). Anti-smoking advertising appears to have a positive effect on pre-adolescents and early adolescents by preventing starting of smoking. Some research suggests that especially advertising genres that graphically depict the health effects of smoking, emphasize social norms against smoking, and portray the tobacco industry as manipulative can positively influence teenagers. But it is evident that social group interactions, through family, peer and cultural contexts, can play an important role in reinforcing, denying, or neutralizing potential effects of anti-smoking advertising. Existing studies of the impact of mass media campaigns on smoking among adolescents are far from consistent and showing varying results (13).

Restrictions. Basically bans and warnings may refer to tobacco industry (production process, advertising, distribution) and consumption of tobacco products (e.g. stipulating tobacco-free places). New standards have also been created aiming at limiting active and passive smoking, such as lack of ashtrays in contemporary cars. Even though people still smoke in cars and the passengers are still exposed to second-hand smoke (34).

We may discuss a few, following, basic levels where bans function:
Family level
School level
Local community level
Government policy
Parent control is a significant factor limiting smoking. The findings suggest that parental smoking restrictions may have the potential to impede adolescent smoking behaviour by, and increasing motivation to quit, self-confidence to quit, and health risk perception. Interestingly, this association of antismoking parental actions and reduced smoking was found for children of both smoking and non-smoking parents. Home smoking bans promote antismoking attitudes among adolescents and they reduce experimenting with smoking (35). Strong parental intervention helps adolescents refrain from tobacco, especially when it is not performed in a punitive manner (36).

Study unanimously suggests that smoking bans at school and in the community are associated with a slower progression to smoking, less consolidation of experimental into regular smoking, and higher quitting rates among adolescents. There is an association between enforcement of youth access laws and lower adolescent smoking rates. But the existence of a policy is not effective in controlling tobacco use unless the policy is implemented and is perceived to be strongly enforced (37,38).

On the macro political level it is important to decrease the number of places where smoking cigarettes is allowed, ban cigarette advertising, and decrease the number of establishments where cigarettes may be purchased.

The Framework Convention on Tobacco Control (FCTC) requires nations that have ratified the convention to ban all tobacco advertising and promotion (39). The FCTC defines tobacco advertising and promotion as 'any form of commercial communication, recommendation or action with the aim, effect or likely effect of promoting a tobacco product or tobacco use either directly or indirectly', and requires that each ratifying country shall 'undertake a comprehensive ban on all tobacco advertising, promotion and sponsorship' (40). Necessity to place health warnings on cigarette packages decreases their visual attractiveness. On the other hand, the graphic layout of cigarette packages is an important element of creating brand image for cigarette companies and it is supposed to create a desire to purchase and try. Cigarettes which are less visually attractive are less tempting for young people (41).

Economic tools. Economic activities are aimed at limiting tobacco consumption by means of tobacco products price increase. Increasing cigarette price (through excise taxes) reduces smoking among adolescents (who are particularly price-sensitive) (42).

4.3 Conclusion

Much of the research on adolescent tobacco use is concerned with correlates and prevention of onset, rather than with intervention with active smokers. Additionally, almost all of the attention on smoking cessation is focused on adults and the majority of cessation programmes aimed at the youth is based on programmes for adults. One of the examples available through the Internet is "International Guidance on Smoking Cessation" IGCRG [www.theipcrg.org/smoking/prac.php]. There are few studies describing effective adolescent smoking-cessation programs (compare: (43). It happens despite the fact that research indicates that 75% of adolescents who currently smoke want to quit (44). The interventions focused on cessation are important but the preventive interventions should not be neglected. Because those who do not smoke before the age of 20 are significantly less likely to start as adults, there is a strong cause for programs that address prevention among young people. Ages 10-16 are the high risk period for first nicotine use, so it should be a main target of future preventions (45).

There is no single model of cessation or prevention which would always be successful enough. There are many reasons for this, especially the fact that the youth are quite a specific target group of health programmes. Youth are not interested in seeking help from any professional person or service as well as smoking cessation programmes and other tools that support quitting. What is the reason for this? Probably there are many. First of all, the scope of life experience of young people is too limited to enable them appropriate evaluation of their behaviour and consequently to be interested in its change. Secondly, they are at a phase of development which is characterised with striving for autonomy and with rebellion against the adult world rather than cooperation with it. Another factor is the strong impact of peers on a young person, mostly exceeding influence of school or even parents. These are the reasons why the future interventions have to be not only well prepared when it comes to content but they also have to be attractive to adolescents, they have to break the barriers between the educators and the young recipients. They simply should "sell" in the environment of young people.

LITERATURE

(1) Lantz PM, Jacobson PD, Warner KE, Wasserman J, Pollack HA, Berson J, et al. Investing in youth tobacco control: a review of smoking prevention and control strategies. Tob.Control 2000 Mar;9(1):47-63.
(2) The European health report 2009. Health and health systems. 2009.
(3) Tonnesen P, Tonstad S, Hjalmarson A, Lebargy F, Van Spiegel PI, Hider A, et al. A multicentre, randomized, double-blind, placebo-controlled, 1-year study of bupropion SR for smoking cessation. J.Intern.Med. 2003 Aug;254(2):184-192.
(4) Killen JD, Robinson TN, Ammerman S, Hayward C, Rogers J, Stone C, et al. Randomized clinical trial of the efficacy of bupropion combined with nicotine patch in the treatment of adolescent smokers. J.Consult.Clin.Psychol. 2004 Aug;72(4):729-735.
(5) Hurt RD, Croghan GA, Beede SD, Wolter TD, Croghan IT, Patten CA. Nicotine patch therapy in 101 adolescent smokers: efficacy, withdrawal symptom relief, and carbon monoxide and plasma cotinine levels. Arch.Pediatr.Adolesc.Med. 2000 Jan;154(1):31-37.
(6) Growing Up Tobacco Free: Preventing Nicotine Addiction in Children and Youths. Washington: Committee on Preventing Nicotine Addiction in Children and Youths. Division of Biobehavioral Sciences and Mental Disorders, Institute of Medicine National, Academy Press; 1994.
(7) Changing adolescents smoking prevalence. 2001.
(8) Preventing tobacco use among young people. A report of the Surgeon General. 1994.
(9) Wiehe SE, Garrison MM, Christakis DA, Ebel BE, Rivara FP. A systematic review of school-based smoking prevention trials with long-term follow-up. J.Adolesc.Health 2005 Mar;36(3):162-169.
(10) Robinson LA, Vander Weg MV, Riedel BWea. "Start to stop": results of a randomised controlled trial of a smoking cessation programme for teens. Tob. Control 2003;12(suppl 4):iv26-iv33.
(11) Bomar PJ. Nurses and Family Health Promotion: Concepts, Assessment, and Intervention. Baltimore: Williams & Wilkins; 1989.
(12) Bertalanffy LV. A Systems View of Man. Boulder: Westview Press; 1981.
(13) Avenevoli S, Merikangas KR. Familial influences on adolescent smoking. Addiction 2003 05/02;98:1-20.
(14) Kleinjan M, Engels RCME, van Leeuve J, Brug Jea. Adolescent smoking cessation: The roles of motivation to quit, nicotine dependence, and parental and peer smoking. Psychologie & Gezondheid 2009;37(5):252-266.
(15) Pierce JP, James LE, Messer K, Myers MG, Williams RE, Trinidad DR. Telephone counseling to implement best parenting practices to prevent adolescent problem behaviors. Contemp.Clin.Trials 2008 May;29(3):324-334.
(16) Hovestadt AJ, Anderson WT, Piercy FP. A family origin scale. J Marital Fam. Ther. 1885;11:287-297.
(17) O'Byrne KK, Haddock CK, Poston WSC. Parenting style and adolescent smoking. J.Adolesc.Health 2002 06;30(6):418-425.
(18) Glendinning A, Schucksmith J. Family life and smoking in adolescence. Soc.Sci.Med. 1997 01;44(1):93.
(19) Kafka RR, London P. Communication in relationships and adolescent substance use: The influence of parents and friends. Adolescence 1991;26:587-598.
(20) Stoker A, Swadi H. Perceived family relationships in drug abusing adolescents. Drug Alcohol Depend. 1990;25:293-297.
(21) Luk JW, Farhat T, Iannotti RJ, Simons-Morton BG. Parent-child communication and substance use among adolescents: Do father and mother communication play a different role for sons and daughters? Addict.Behav. 2010;35(5):426-431.
(22) Guilamo-Ramos V, Jaccard J, Dittus P, Gonzalez B, Bouris A, Banspach S. The Linking Lives health education program: a randomized clinical trial of a parent-based tobacco use prevention program for african american and latino youths. Am.J.Public Health 2010 Sep;100(9):1641-1647.

(23) Connell AM, Dishion TJ, Yasui M, Kavanagh K. An adaptive approach to family intervention: linking engagement in family-centered intervention to reductions in adolescent problem behavior. J.Consult.Clin.Psychol. 2007 Aug;75(4):568-579.
(24) Andersen MR, Leroux BG, Bricker JB, Rajan KB, Peterson AV,Jr. Antismoking parenting practices are associated with reduced rates of adolescent smoking. Arch.Pediatr.Adolesc.Med. 2004 Apr;158(4):348-352.
(25) Dijk F, Reubsaet A, de Nooijer J, de Vries H. Smoking status and peer support as the main predictors of smoking cessation in adolescents from six European countries. Nicotine Tobacco Res. 2007 09/02;9:495-504.
(26) Mercken L, Snijders TA, Steglich C, Vertiainen E, de Vries H. Smoking-based selection and influence in gender-segregated friendship networks: a social network analysis of adolescent smoking. Addiction 2010 Apr 27.
(27) Lancaster T, Stead LF. Self-help interventions for smoking cessation. Cochrane Database Syst. Rev. 2005;3(CD001118).
(28) Stead LF, Perera R, Lancaster T. Telephone counselling for smoking cessation. Cochrane Database Syst.Rev. 2006 Jul 19;3:CD002850.
(29) Lipkus IM, McBride CM, Pollak KI, Schwartz-Bloom R, Tilson E, Bloom PN. A randomized trial comparing the effects of self-help materials and proactive telephone counseling on teen smoking cessation. Health Psychol. 2004 07;23(4):397-406.
(30) Myung SK, McDonnell DD, Kazinets G, Seo HG, Moskowitz JM. Effects of Web- and computer-based smoking cessation programs: meta-analysis of randomized controlled trials. Arch.Intern.Med. 2009 May 25;169(10):929-937.
(31) Riley W, Obermayer J, Jean-Mary J. Internet and Mobile Phone Text Messaging Intervention for College Smokers. Journal of American College Health 2008 Sep;57(2):245-248.
(32) Klatt C, Berg CJ, Thomas JL, Ehlinger E, Ahluwalia JS, An LC. The Role of Peer E-mail Support As Part of a College Smoking-Cessation Website. Am.J.Prev.Med. 2008 12/02;35(6):S471-S478.
(33) Macaskill P, Pierce JP, Simpson JM, Lyle DM. Mass media-led antismoking campaign can remove the education gap in quitting behavior. Am.J.Public Health 1992 Jan;82(1):96-98.
(34) Hitchman SC, Fong GT, Borland R, Hyland A. Predictors of smoking in cars with nonsmokers: findings from the 2007 Wave of the International Tobacco Control Four Country Survey. Nicotine Tob.Res. 2010 Apr;12(4):374-380.
(35) Albers AB, Biener L, Siegel M, Cheng DM, Rigotti N. Household smoking bans and adolescent antismoking attitudes and smoking initiation: findings from a longitudinal study of a Massachusetts youth cohort. Am.J.Public Health 2008 Oct;98(10):1886-1893.
(36) Nilsson M, Weinehall L, Bergstrom E, Stenlund H, Janlert U. Adolescent's perceptions and expectations of parental action on children's smoking and snus use; national cross sectional data from three decades. BMC Public Health 2009 Mar 4;9:74.
(37) Lovato CY, Sabiston CM, Hadd V, Nykiforuk CI, Campbell HS. The impact of school smoking policies and student perceptions of enforcement on school smoking prevalence and location of smoking. Health Educ.Res. 2007 Dec;22(6):782-793.
(38) Kumar R, O'Malley PM, Johnston LD. School tobacco control policies related to students' smoking and attitudes toward smoking: national survey results, 1999-2000. Health Educ.Behav. 2005 Dec;32(6):780-794.
(39) Freeman B, Chapman S, Rimmer M. The case for the plain packaging of tobacco products. Addiction 2008 Apr;103(4):580-590.
(40) WHo Framework Convention on Tobacco Control FCTC. Available at: http://www.who.int/fctc/en/.
(41) Miller A. Development of Cigarette Packaging. Artur D Little Inc. Liggett and Myers, October 14, 1963, 1963.
(42) Forster JL, Widome R, Bernat DH. Policy interventions and surveillance as strategies to prevent tobacco use in adolescents and young adults. Am.J.Prev.Med. 2007 Dec;33(6 Suppl):S335-9.

(43) Sussman S, Lichtman K, Ritt A, Pallonen UE. Effects of thirty-four adolescent tobacco use cessation and prevention trials on regular users of tobacco products. Subst.Use Misuse 1999 09;34(11):1469-1503.
(44) Fritz DJ. Adolescent smoking cessation: how effective have we been? J.Pediatr.Nurs. 2000 Oct;15(5):299-306.
(45) Wittchen HU, Behrendt S, Hofler M, Perkonigg A, Lieb R, Buhringer G, et al. What are the high risk periods for incident substance use and transitions to abuse and dependence? Implications for early intervention and prevention. Int.J.Methods Psychiatr.Res. 2008 Jun;17 Suppl 1:S16-29.

REMARKS ON METHODOLOGY OF LITERATURE REVIEW

A literature research for different aspects of cigarette use by adolescents was conducted in MEDLINE (via PubMed, OVID, EIFL interface and ISI Web of Knowledge platform), Cochrane Database of Systematic Review and the other sources – euFAQT countries Country Reports, grey literature and www pages.

The search was carried out between January 1996 and June 2010.

The first step of research strategy development was the characterizing the research question in terms of the following elements:

Population - adolescent smoking, age 13-19
Intervention - smoking quitting intervention, family approach, cultural and social capital
Outcome - successful smoking prevention and cigarette quitting

The next step was the search question construction by key words used for databases research (Table 1)

RESEARCH STRATEGY

POPULATION			INTERVENTION	
Teenager* Adolescent* Young adult* College student* Child Children	AND	Smoking Tobacco Nicotine Smoker*	AND	Family Parent* Teacher* Friends* Peers School* Education Educator* Culture Cultural capital Social Economic Environment Health literacy Health behaviour
OR		OR		OR
AND				
OUTCOME				
Intervention* Prevention Program* Smoking cessation intervention Smoking prevention				
OR				

Table 1. (POPULATION AND OUTCOME) OR (POPULATION AND INTERVENTION)

The results of research – the bibliographic records were downloaded and imported into the citation management software RefWorks. After finding and removing duplicate records, the initial retrieval contained 595 records. Of 308 screened abstracts, 105 articles required a full review, and 155 [39]remained to cite within a review text. Fig. 1

[39] Without the articles cited in euFAQTcountry reports (Bulgaria, Greece, Hungary, Poland, Romania). They are included in reference list in Annex 1

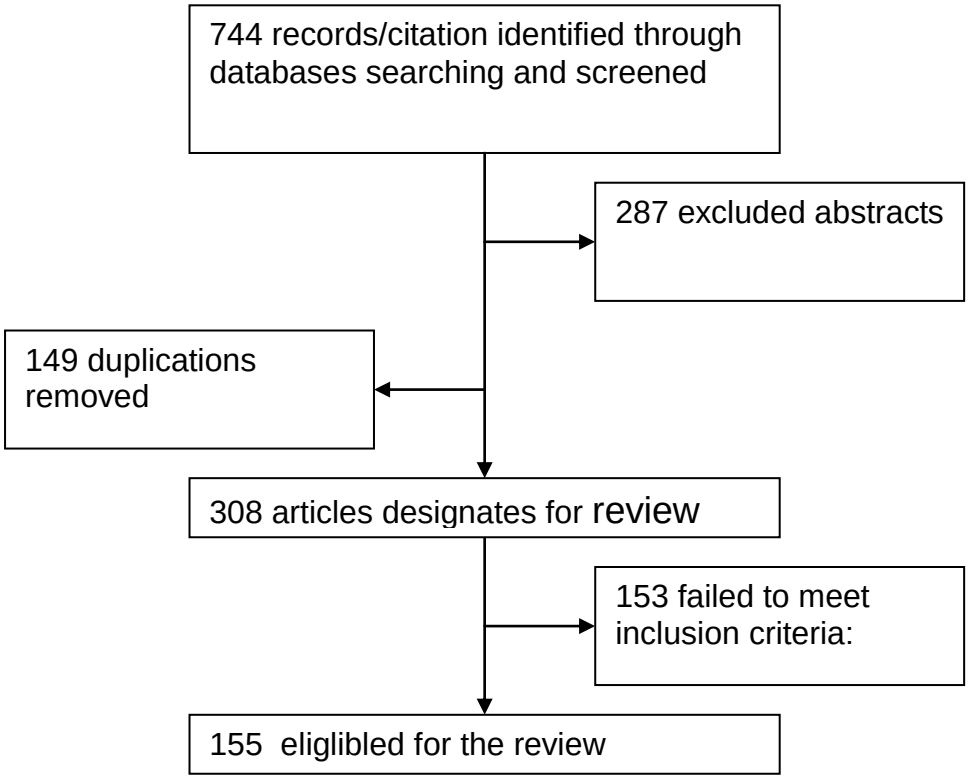


Fig. 1 Results of searching

The excluded records did not meet the criteria assumed by the review authors: sample size and selection, language of a publication (in the case of choice from among the full text articles).

The articles cited/appeared in review text are listed at the end of every chapter.

The full list of included articles is attached in the Annex 1.

Bibliography

Literature

(1) European Report on Tobacco Control Policy, 2002.Press Backgrounder EURO /02/ 02.Guidelines for Controlling and Monitoring the Tobacco Epidemic. Tobacco of Health Programme. World Health Organization, March, 1996.
(2) Green Paper-Towards a Europe free from Tobacco Smoke: Policy Options at EULevel. Brussels: Commission of the European Communities; 30 Jan. 2007.
(3) Passive smoking and children: A report by the Tobacco Advisory Group of the Royal College of Physicians. 2010.
(4) Centers for Disease Control and Prevention (CDC). Morbidity and Mortality Weekly Report, July 9 2010 2010;59(26).
(5) CDC.CDC grang rounds: current opportunitiesin tobacco control. MMWR 2010;59:487-492.
(6) WHO Report Equity, social determinants and public health programmes. 2010.
(7) National survey aimed at improving children's health. 2009.12.07; Available at: http://www.queensu.ca/news/articles/national-survey-aimed-improving-childrens-health. Accessed 9.08, 2010.
(8) Cigarette smoking among adults and trends in smoking cessation - United States, 2008. MMWR Morb.Mortal.Wkly.Rep. 2009 11/13;58(44):1227-1232.
(9) The European health report 2009. Health and health systems. 2009.
(10) WHO Report On The Global Tobacco Epidemic, 2009. Implementing smoke-free environments. 2009.
(11) Survey on tobacco – analytical report. Brussels. 2009;Flash Eurobarometer No. 253.
(12) The 2007 ESPAD Report. Substance use Among Students in 35 European Countries. 2009.
(13) WHO Report on the Global Tobacco Epidemic. The MPOWER package. 2008.
(14) Centers for Disease Control and Prevention (CDC). Global Youth Tobacco Surveillance, 2000–2007. Morbidity and Mortality Weekly Report, 2008 2008;57:1-21.
(15) Centers for Disease Control and Prevention (CDC). Smoking-attributable mortality, years of potential life lost, and productivity losses – United States, 2000–2004

. Morbidity and Mortality Weekly Report 2008;57:1226-1228.
(16) South-Eastern Europe Health Network. Reversing the Tobacco Epidemic: Saving lives in south-eastern Europe. 2008.
(17) Centers for Disease Control and Prevention (CDC). Global Youth Tobacco Surveillance, 2000–2007. Morbidity and Mortality Weekly Report, 2008 2008;57(SS-1).
(18) National Cancer Institute. The role of the media in promoting and reducing tobacco use. Tobacco control monograph no. 19. Bethesda, MD. 2008.
(19) Australian Institute of Health and Welfare. 2007 National Drug Strategy Household Survey: first results, cat. no. PHE 98. Drug statistics series no. 20. 2008.
(20) Department of the Prime Minister and Cabinet. Australia 2020 Summit: final report. 2008.
(21) Закон за тютюна и тютюневите изделия, обн. ДВ, бр. 101/ 30 ноември 1993, последно изм.ДВ, бр. 109/ 20 декември 2007 г. . 2007.
(22) Green paper. Towards a Europe free from tobacco smoke: policy option at EU level. 2007;C6 - Health Measures.
(23) Cunoştinţele, atitudinile şi practicile populaţiei generale referitoare la consumul de tutun şi la prevederile legislative în domeniu. 2007.
(24) Studiu de evaluare a atitudinilor, obiceiurilor şi practicilor referitoare la obiceiul fumatului în relaţie cu alţi factori de risc în întreprinderea. 2007.
(25) Why people smoke? – multiple approach to tobacco dependence. 2007.
(26) Institute of Medicine. Ending the tobacco problem: a blueprint for the nation. 2007.
(27) CDC. Best practices for comprehensive tobacco control programs—2007. 2007.
(28) World Health Statistic 2007. 2007:15.

(29) Закон за изменение и допълнение на Закона за тютюна и тютюневите изделия,приет от Народното събрание на Република България на 16 август 2007 г., обнародван в „Държавен вестник", бр. 70 от 2006 г.. 2006.
(30) Lifting the smokescreen: 10 reasons for a smoke free Europe. 2006.
(31) Atitudinea cetățenilor UE cu privire la consumul de tutun. 2006.
(32) Закон за акцизите и данъчните складове, обн. ДВ брой 91 от 15 ноември 2005 последно изменение ДВ, бр. 109/ 20 декември 2007 г.. 2005.
(33) Australian Institute of Health and Welfare. 2004 National Drug Strategy Household Survey: detailed findings. AIHW cat. no. PHE 66. Drug Statistics Series No 16. 2005.
(34) Закон за здравето (приет от Народното събрание на 29.07.2004 г.), Обн. ДВ, бр.70/. 2004 10.08.2004 г.
(35) Доклад за здравето на нацията в началото на 21 век. 2004.
(36) Наредба за изискванията към етикетирането, маркировката и външното оформление на тютюневите изделия и за определяне на стандарти за извършване на оценка на съответствието на съдържанието на вредни съставки в цигарите, приета с ПМС № 18/ 2004 г. 2004.
(37) Tobacco or health in the European Union. Past, Present and Future. 2004:56-57.
(38) Report on the Health and Social Needs of People in Manastirea. 2004.
(39) Global Youth Tobacco Survey- Fact Sheets. : CDC, Department of Health and Human Services; World Health Organization; 2003.
(40) Основни внасоки за училищни здравни програми за превенция на употребата и пристрастяването към тютюн. In: Методиев М, editor. Промоция на здраве и здравно образование. Българска асоциация "Училище и здраве"с финансовото съдействие на American Cancer Society ed.; 2002.
(41) Преброяване на населението. Здравно състояние на населението: Национален статистически институт (НСИ); 2002.
(42) World Health Report 2002: reducing risks, promoting healthy life. 2002.
(43) IATH (International Agency on Smoking or Health) Bulletin 2001 (July)(116).
(44) Youth tobacco surveillance--United States, 2000. MMWR CDC Surveill.Summ. 2001 Nov 2;50(4):1-84.
(45) Zdrowie naszych dzieci: dzieciństwo wolne od tytoniu. Warszawa: Zakład Zdrowia Publicznego i Medycyny Szkolnej Instytutu Matki i Dziecka; 2001.
(46) Национална здравна стратегия "По-добро здраве за по-добро бъдеще на България". София: МЗ; 2001.
(47) Changing adolescents smoking prevalence. 2001.
(48) WHO European Partnership Project to Reduce Tobacco Dependence. WHO Evidence Based Recommendations on the Treatment of Tobacco Dependence. 2001.
(49) Changing adolescents smoking prevalence. 2001;14.
(50) Women and the tobacco epidemic: challenges for the 21st century. 2001.
(51) Health-Compromising Behaviors: Why Do Adolescents Smoke or Drink? Identifying Underlying Risk and Protective Factors. Journal of the American Academy of Child & Adolescent Psychiatry 2001 04;40(4):499.
(52) Youth tobacco surveillance--United States, 1998-1999. MMWR CDC Surveill.Summ. 2000 Oct 13;49(10):1-94.
(53) A clinical practice guidline for treating tobacco use and dependence. A U.S public health service report. JAMA 2000;283(24):3244-3254.
(54) Tobacco Control Country Profiles. Atlanta GA: American Cancer Society; 2000.
(55) Reducing Tobacco Use: A Report of the Surgeon General. 2000.
(56) Effective educational strategies to prevent tobacco use among young people. Reducing tobacco use. A report of the Surgeon General Washington: U.S. Department of Health and Human Srevices; 2000. p. 59-94.
(57) 20.04.2010; Available at: http://www.theipcrg.org/smoking/levels.php.
(58) Curbing the Epidemics. Governments and the Economics of Tobacco Control. Washington: World Bank; 1999.

(59) International Consultation on Environmental Tobacco Smoke (ETS) and Child Health. 1999.
(60) Zapobieganie używaniu tytoniu oraz pomoc w rzucaniu palenia. Dla niemowląt, dzieci, młodzieży i dorosłych. Wytyczne Institute for Clinical Systems Integration, Minneapolis. Med Dypl 1998;7(1):155-165.
(61) Smoking, Drinking and Drug Taking in the European Region. Copenhagen: WHO, Regional Office for Europe.; 1997.
(62) Профилактика в условията на първичната медицинска помощ. Препоръки за утвърждаване на добра професионална практика. (CINDI)Countrywide Integrated Non-communicable Disease Prevention. CINDI Programme. 1996.
(63) Growing Up Tobacco Free: Preventing Nicotine Addiction in Children and Youths. Washington: Committee on Preventing Nicotine Addiction in Children and Youths. Division of Biobehavioral Sciences and Mental Disorders, Institute of Medicine National, Academy Press; 1994.
(64) Preventing tobacco use among young people. A report of the Surgeon General. 1994.
(65) Smoking Cessation Methods, Recommendations for the European Community. European School of Oncology Smoking Cessation Advisory Group Meeting. Venice; 1993.
(66) ESPAD. The European School Survey Project on Alcohol and other Drugs. Available at: http://www.espad.org/background.
(67) Eurobarometer. Survey on Tobacco: Analytical report. Available at: http://europa.eu/.
(68) Eurostat. Percentage of smokers, by gender. Available at: http://epp.eurostat.ec.europa.eu/tgm/refreshTableAction.do?tab=table&plugin=0&pcode=tsdph350&language=en.
(69) KE.P.KA. Smoking and Adolescents [Οι βάσεις πάνω στις οποίες θεμελειώνεται και αναπτύσσεται η σχέση του ατόμου με το κάπνισμα. Available at: http://kepka.org/index.php?option=com_content&task=view&id=296&Itemid=52.
(70) World Health Organization. Tobacco Control Database: Country Profile: Greece. Available at: http://data.euro.who.int/Default.aspx?TabID=2404.
(71) Наредба за условията и реда, при които се допуска по изключение тютюнопушене в обособени зони на закритите обществени места и на закритите работни помещения, приета с Постановление № 329/ от 8 декември 2004 г. на Министерски съвет на Република България (Обн. ДВ, бр. 110/2004 г.). .
(72) Национална програма за ограничаване на тютюнопушенето (2002-2005).
(73) Национална програма за ограничаване на тютюнопушенето (2007-2010).
(74) Рамкова конвенция за контрол на тютюна. Ратифицирана със Закон за ратификация. ДВ, бр. 87/ 01.11.2005 г. .
(75) Сборник здравни закони.Столична хигиенно-епидемиологична инспекция (СХЕИ), С. 2001 г. .
(76) Столична хигиенно-епидемиологична инспекция (СХЕИ) - Прес-лист 31Май - Световен ден без тютюнопушене. 2001 г. .
(77) WHO, Regional Office for Europe -The European Report on Tobacco Control Policy.
(78) World Health Organization. Regional Office for Europe, Action Plan for a Tobacco- free Europe. EUR /ICP/ TOH, 199. EUR/HEA. Target 17, 1993. .
(79) International Guidance on Smoking Cessation IGCRG. Available at: www.theipcrg.org/smoking/prac.php.
(80) European Union. Available at: http://ec.europa.eu/heath-eu/.
(81) Available at: http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-30-08-357/EN/KS-30-08-357-.
(82) Health Behaviour in School Children. Available at: http://www.hbsc.org.
(83) Global Youth Tobacco Survey. Available at: http://www.cdc.gov/tobacco/globar/gyts/.
(84) The European School Survey on Alcohol and Other Drugs. Available at: http://www.espad.org/espad-reports/.
(85) The Balkans: land of Europe's inveterate smokers. Available at: http://www.tobacco.org/news/207473.html.

(86) WHo Framework Convention on Tobacco Control FCTC. Available at: http://www.who.int/fctc/en/.
(87) The Family Smoking Prevention and Tobacco Control Act, pob. L. No.111-31,123Start 1776(2009). .
(88) Directorate- General for Health & Consumers. Tobacco control in the EU. FACTSHEET. European Commission.
(89) Abdalla AM, Al-Kaabba AF, Saeed AA, Abdulrahman BM, Raat H. Gender differences in smoking behavior among adolescents in Saudi Arabia. Saudi Med.J. 2007 Jul;28(7):1102-1108.
(90) Al Mamun A, Alati R, O'Callaghan M, Hayatbakhsh MR, O'Callaghan FV, Najman JM, et al. Does childhood sexual abuse have an effect on young adults' nicotine disorder (dependence or withdrawal)? Evidence from a birth cohort study. Addiction 2007 Apr;102(4):647-654.
(91) Albers AB, Biener L, Siegel M, Cheng DM, Rigotti N. Household smoking bans and adolescent antismoking attitudes and smoking initiation: findings from a longitudinal study of a Massachusetts youth cohort. Am.J.Public Health 2008 Oct;98(10):1886-1893.
(92) Ali MM, Dwyer DS. Estimating Peer Effects in Adolescent Smoking Behavior: A Longitudinal Analysis. Journal of Adolescent Health 2009;45(4):402-408.
(93) Ames SC, Patten CA, Offord KP, Pennebaker JW, Croghan IT, Tri DM, et al. Expressive writing intervention for young adult cigarette smokers. J.Clin.Psychol. 2005 Dec;61(12):1555-1570.
(94) Andersen I, Rasmussen NKR, Ostergren PO, Carlsson F, Grahn M, Diderichsen F. Does job strain mediate the effect of socioeconomic group on smoking behaviour? The impact of different health policies in Denmark and Sweden. Scand.J.Public Health 2008;36(6):598-606.
(95) Andersen MR, Leroux BG, Bricker JB, Rajan KB, Peterson AV,Jr. Antismoking parenting practices are associated with reduced rates of adolescent smoking. Arch.Pediatr.Adolesc.Med. 2004 Apr;158(4):348-352.
(96) Andersen MR, Leroux BG, Marek PM, Peterson AV,Jr, Kealey KA, Bricker J, et al. Mothers' attitudes and concerns about their children smoking: do they influence kids? Prev.Med. 2002 Feb;34(2):198-206.
(97) Ariza C, Nebot M, Tomas Z, Gimenez E, Valmayor S, Tarilonte V, et al. Longitudinal effects of the European smoking prevention framework approach (ESFA) project in Spanish adolescents. Eur.J.Public Health 2008 Oct;18(5):491-497.
(98) Arvanitidou M, Tirodimos I, Kyriakidis I, Tsinaslanidou Z, Seretopoulos D, Dardavessis T. Cigarette smoking among adolescents in Thessaloniki, Greece. 2008; . Accessed 4, 53.
(99) Ausems M, Mesters I, van Breukelen G, De Vries H. Smoking among Dutch elementary schoolchildren: gender-specific predictors. Health Educ.Res. 2009;24(5):818-828.
(100) Avenevoli S, Merikangas KR. Familial influences on adolescent smoking. Addiction 2003 05/02;98:1-20.
(101) Aveyard P, Markham WA, Cheng KK. A methodological and substantive review of the evidence that schools cause pupils to smoke. Soc.Sci.Med. 2004 Jun;58(11):2253-2265.
(102) Aveyard P, Markham WA, Lancashire E, Bullock A, Macarthur C, Cheng KK, et al. The influence of school culture on smoking among pupils. Soc.Sci.Med. 2004 May;58(9):1767-1780.
(103) Aveyard P, Sherratt E, Almond J, Lawrence T, Lancashire R, Griffin C, et al. The change-in-stage and updated smoking status results from a cluster-randomized trial of smoking prevention and cessation using the transtheoretical model among British adolescents. Prev.Med. 2001 Oct;33(4):313-324.
(104) Azaiza F, Shoham M, Bar-Hamburger R, Abu-Asbeh K. Psychoactive substance use among Arab adolescent school dropouts in Israel: a phenomenon and its implications. Health.Soc.Care.Community 2009 Feb;17(1):27-35.
(105) Backinger CL, Fagan P, Matthews E, Grana R. Adolescent and young adult tobacco prevention and cessation: current status and future directions. Tob.Control 2003 Dec;12 Suppl 4:IV46-53.
(106) Backinger CL, Leischow SJ. Advancing the science of adolescent tobacco use cessation. Am.J.Health Behav. 2001 May-Jun;25(3):183-190.
(107) Bandura A. Social foundations of thought and action: A social cognitive theory. 1986.

(108) Baramidze L, Sturua L, Gamkrelidze A. Tobacco use among georgian schoolchildren; pilot study following criteria of European school project on alcohol and other drug. Georgian Med.News. 2009 Nov;(176)(176):51-56.
(109) Bardi A, Schwartz SH. Values and behavior: strength and structure of relations. Pers.Soc.Psychol.Bull. 2003 Oct;29(10):1207-1220.
(110) Barnekow VBG, Clift S, Jensen B.B., Paulus P., Rivett D., Young I. Health-promoting schools: a resource for developing indicators. Copenhagen: The WHO Regional Office for Europe, the European Commission; 2007.
(111) Barnett TA, Gauvin L, Lambert M, O'Loughlin J, Paradis G, McGrath JJ. The influence of school smoking policies on student tobacco use. Arch.Pediatr.Adolesc.Med. 2007 Sep;161(9):842-848.
(112) Baska T, Ballova M, Mad'ar R, Straka S. Epidemiology of smoking habit in adolescents. Suggestions for prevention. Cent.Eur.J.Public Health 1999 Feb;7(1):31-34.
(113) Baska T, GYTS Slovakia 2007 Collaborative Group. GYTS Country Report Slovakia 2007. 2008 April 2008.
(114) Baska T, Sovinova H, Nemeth A, Przewozniak K, Warren CW, Kavcova E, et al. Findings from the Global Youth Tobacco Survey (GYTS) in Czech Republic, Hungary, Poland and Slovakia--smoking initiation, prevalence of tobacco use and cessation. Soz.Praventivmed. 2006;51(2):110-116.
(115) Baska T, Warren CW, Baskova M, Jones NR. Prevalence of youth cigarette smoking and selected social factors in 25 European countries: findings from the Global Youth Tobacco Survey. Int.J.Public.Health. 2009;54(6):439-445.
(116) Baska T, Warren CW, Hudeckova H, Ochaba R, Stastny P, Lea V, et al. The role of family background on cigarette smoking among adolescent school children in Slovakia: findings from the 2007 Slovakia Global Youth Tobacco Survey. Int.J.Public.Health. 2010 Jul 6.
(117) Baskerville B, Hotte A, Dunkley G. Evaluation of a high school quit and win smoking cessation program. Ottawa, ON: University of Ottawa, Community Health Research Unit, 1993. Available at: http://www.uottawa.ca/academic/med/epi/chru_eng.htm.
(118) Bauman KE, Foshee VA, Linzer MA, Koch GG. Effect of parental smoking classification on the association between parental and adolescent smoking. Addict.Behav. 1990;15(5):413-422.
(119) Beck KH, Shattuck T, Haynie D, Crump AD, Simons-Morton B. Associations between parent awareness, monitoring, enforcement and adolescent involvement with alcohol. Health Educ.Res. 1999;14(6):765-775.
(120) Bertalanffy LV. A Systems View of Man. Boulder: Westview Press; 1981.
(121) Bjaarnason T, Davidaviciene AG, Miller P, Nociar A, Pavlakis A, Stergar E. Family structure and adolescent cigarette smoking in eleven European Countries. Addiction 2003;98(6):815-824.
(122) Błach W, Liwiniuk A, Migasiewicz J. Sporty i sztuki walki jako formy przeciwdziałania ryzykownym zachowaniom zdrowotnym młodzieży w wieku 15-18 lat na przykładzie judo i aikido. Med.Sport. 2005;21(2):135-140.
(123) Blakely T, Wilson N. The contribution of smoking to inequalities in mortality by education varies over time and by sex:two national cohort studies, 1981–84 and 1996–99. Int J Epidemiol 2005;34(5):1054-1062.
(124) Blokland E:E, R., Hale WW, Meeus W, Willemsen MC. Lifetime parental smoking history and cessation and early adolescent smoking behaviour. Prev.Med. 2004;38:359-368.
(125) Boardman JD. State-Level Moderation of Genetic Tendencies to Smoke. Am.J.Public Health 2009;99(3):480-486.
(126) Boardman JD, Saint Onge JM, Haberstick BC, Timberlake DS, Hewitt JK. Do schools moderate the genetic determinants of smoking? Behav.Genet. 2008;38(3):234-246.
(127) Bobrowski K. Zmiany w rozpowszechnieniu używania substancji psychoaktywnych wśród gimnazjalistów w latach 2001-2005. Zagadkowe wyniki w Iławie. Alkoh. Narkom. 2007;20(2):133-150.
(128) Bobrowski K. Sport i inne alternatywy w profilaktyce zachowań ryzykownych młodzieży. Świat Probl. 2007(6):12-15.

(129) Bobrowski K. Zdrowie psychiczne i zachowania ryzykowne 15-latków - badania mokotowskie. Alkoh. Narkom. 2006;19(3):225-242.
(130) Bobrowski K. Sposoby spędzania wolnego czasu przez młodzież a używanie substancji psychoaktywnych. Med. Wieku Rozw. 2003;VII(1 cz.2):91-104.
(131) Bobrowski K. Badania epidemiologiczne a kierunki rozwoju lokalnej strategii profilaktyki używania substancji psychoaktywnych. Alkohol Narkom 2003;16(1-2):39-56.
(132) Bomar PJ. Nurses and Family Health Promotion: Concepts, Assessment, and Intervention. Baltimore: Williams & Wilkins; 1989.
(133) Bonnie RJ, Stratton K, Wallace AL. Ending the tobacco problem: a blue-print for the nation. 2007.
(134) Borland R, Fong GT, Yong HH, Cummings KM, Hammond D, King B, et al. What happened to smokers' beliefs about light cigarettes when "light/mild" brand descriptors were banned in the UK? Findings from the International Tobacco Control (ITC) Four Country Survey. Tob.Control 2008 Aug;17(4):256-262.
(135) Borland R, Yong HH, Balmford J, Fong GT, Zanna MP, Hastings G. Do risk-minimizing beliefs about smoking inhibit quitting? Findings from the International Tobacco Control (ITC) Four-Country Survey. Prev.Med. 2009 Aug-Sep;49(2-3):219-223.
(136) Borland R, Yong HH, Cummings KM, Hyland A, Anderson S, Fong GT. Determinants and consequences of smoke-free homes: findings from the International Tobacco Control (ITC) Four Country Survey. Tob.Control 2006 Jun;15 Suppl 3:iii42-50.
(137) Borland R, Yong HH, Siahpush M, Hyland A, Campbell S, Hastings G, et al. Support for and reported compliance with smoke-free restaurants and bars by smokers in four countries: findings from the International Tobacco Control (ITC) Four Country Survey. Tob.Control 2006 Jun;15 Suppl 3:iii34-41.
(138) Botello-Harbaum MT, Haynie D, Iannotti RJ, Wang J, Gase L, Simons-Morton B. Tobacco control policy and adolescent cigarette smoking status in United States. Nicotine Tob.Res. 2009;11(7):875-885.
(139) Botvin GJ, Griffin KW. Life skills training as a primary prevention approach for adolescent drug abuse and other problem behaviors. Int.J.Emerg.Ment.Health 2002 Winter;4(1):41-47.
(140) Branstetter SA, Horn K, Dino G, Zhang J. Beyond quitting: predictors of teen smoking cessation, reduction and acceleration following a school-based intervention. Drug Alcohol Depend. 2009 Jan 1;99(1-3):160-168.
(141) Brassai L, Pikó B. Szerhasználat és családi tényezők vizsgálata középiskolásoknál. Addiktológia 2005;4(1):7-28.
(142) Braverman MT. Research on resilience and its implications for tobacco prevention. Nicotine Tob.Res. 1999;1 Suppl 1:S67-72.
(143) Bricker JB, Leroux BG, Peterson AV. Nine-year prospective relationship between parental smoking cessation and children's daily smoking. Addiction 2003;98(5):585-593.
(144) Bricker JB, Peterson AV, Leroux BG, Andersen MJ, Rajan KB, Sarason IG. Prospective prediction of children's smoking transitions: role of parents' and older siblings' smoking. Addiction 2006;101(1):128-136.
(145) Bricker JB, Rajan BK, Zalewski M, Andersen RB, Ramey M, Peterson AV. Psychological and social risk factors in adolescent smoking transitions; A population-based longitunal study. Healt Psychology 2009;28(4):439-447.
(146) Bricker JB, Andersen MR, Rajan KB, Sarason IG, Peterson AV,Jr. The role of schoolmates' smoking and non-smoking in adolescents' smoking transitions: a longitudinal study. Addiction 2007 Oct;102(10):1665-1675.
(147) Bricker JB, Otten R, Liu JL, Peterson AV,Jr. Parents who quit smoking and their adult children's smoking cessation: a 20-year follow-up study. Addiction 2009 Jun;104(6):1036-1042.
(148) Bricker JB, Peterson AV,Jr, Andersen MR, Sarason IG, Rajan KB, Leroux BG. Parents' and older siblings' smoking during childhood: changing influences on smoking acquisition and escalation over the course of adolescence. Nicotine Tob.Res. 2007 Sep;9(9):915-926.

(149) Bricker JB, Peterson AV,Jr, Sarason IG, Andersen MR, Rajan KB. Changes in the influence of parents' and close friends' smoking on adolescent smoking transitions. Addict.Behav. 2007 Apr;32(4):740-757.
(150) Bricker JB, Rajan KB, Andersen MR, Peterson AV,Jr. Does parental smoking cessation encourage their young adult children to quit smoking? A prospective study. Addiction 2005 Mar;100(3):379-386.
(151) Broszkiewicz M, Drygas W. Programy interwencji uwarunkowane na ograniczenie palenia tytoniu wśród młodzieży: rozważania metodologiczne. Prz. Lek. 2007;64(10):895-898.
(152) Brown RA, Ramsey SE, Strong DR, Myers MG, Kahler CW, Lejuez CW, et al. Effects of motivational interviewing on smoking cessation in adolescents with psychiatric disorders. Tob.Control 2003 Dec;12 Suppl 4:IV3-10.
(153) Burt RD, Dinh KT, Peterson AV,Jr, Sarason IG. Predicting adolescent smoking: a prospective study of personality variables. Prev.Med. 2000 Feb;30(2):115-125.
(154) Burton SL, Gitchell JG, Shiffman S, Centers for Disease Control and Prevention (CDC). Use of FDA-approved pharmacologic treatments for tobacco dependence--United States, 1984-1998. MMWR Morb.Mortal.Wkly.Rep. 2000 Jul 28;49(29):665-668.
(155) Castrucci BC, Gerlach KK. Understanding the association between authoritative parenting and adolescent smoking. Matern.Child Health J. 2006 Mar;10(2):217-224.
(156) Chaloupka FJ. Contextual factors and youth tobacco use: Policy linkages. Addiction 2003(Suppl. 1):147-149.
(157) Chapman S. Falling prevalence of smoking: how low can we go? Tob Control 2007;16:145-147.
(158) Charlton A. Smoking cessation in schools and colleges. J.Smoking-Related Dis. S 1994((Suppl. 1), 2899294).
(159) Chassin L, Presson C, Pitts SC, Sherman SJ. „Constructive" vs „destructive" deviance in adolescent health-related behaviors. Journal of Youth and Adolescence 1989;18:245-262.
(160) Chassin L, Presson C, Rose J, Sherman SJ, Prost J. Parental smoking cessation and adolescent smoking. J.Pediatr.Psychol. 2002 Sep;27(6):485-496.
(161) Chassin L, Presson CC, Pitts SC, Sherman SJ. The natural history of cigarette smoking from adolescence to adulthood in a midwestern community sample: multiple trajectories and their psychosocial correlates. Health Psychol. 2000 May;19(3):223-231.
(162) Chassin L, Presson CC, Rose J, Sherman SJ, Davis MJ, Gonzalez JL. Parenting style and smoking-specific parenting practices as predictors of adolescent smoking onset. J.Pediatr.Psychol. 2005 Jun;30(4):333-344.
(163) Chassin L, Presson CC, Sherman SJ, Edwards DA. The natural history of cigarette smoking: predicting young-adult smoking outcomes from adolescent smoking patterns. Health Psychol. 1990;9(6):701-716.
(164) Chassin L, Presson CC, Todd M, Rose JS, Sherman SJ. Maternal socialization of adolescent smoking: the intergenerational transmission of parenting and smoking. Dev.Psychol. 1998 Nov;34(6):1189-1201.
(165) Chen HH, Yeh ML. Developing and evaluationg a smoking cessation program combined with an Internet -assisted instruction program for adolescents with smoking. Patient Educ. Couns. 2005 2005 Aug 23.
(166) Chen HH, Yeh ML, Chao YH. Comparing effects of auricular acupressure with and without an internet-assisted program on smoking cessation and self-efficacy of adolescents. J.Altern.Complement.Med. 2006 Mar;12(2):147-152.
(167) Chen X, Stanton B, Fang X, Li X, Lin D, Zhang J, et al. Perceived smoking norms, socioenvironmental factors, personal attitudes and adolescent smoking in China: a mediation analysis with longitudinal data. J.Adolesc.Health 2006 Apr;38(4):359-368.
(168) Chodkiewicz J, Juczyński Z. Problem używania środków psychoaktywnych przez młodzież. Badania uczniów szkół łódzkich. Alkoh. Narkom. 2002;15(4):409-420.
(169) Choquet M, Hassler C, Morin D, Falissard B, Chau N. Perceived parenting styles and tobacco, alcohol and cannabis use among French adolescents: gender and family structure differentials. Alcohol Alcohol. 2008 Jan-Feb;43(1):73-80.

(170) Christophi CA, Sawides ECG, Warren CW, Demokritou P, Connolly GN. Main determinants of cigarette smoking in youth based on the 2006 Cyprus GYTS. Prev.Med. 2009;48(3):232-236.
(171) Cichy W. Problem palenia tytoniu w wieku rozwojowym. Prz. Lek. 2006;63(10).
(172) Cichy B. Dlaczego młodzież ponadgminazjalna pali tytoń? Family Med Primary Care Rev 2007;9(1):82-86.
(173) Cieśla B, Sudoł-Jednorowicz E. Zdrowa rodzina. Ochrona przed biernym paleniem tytoniu. Zdr. Publ. 2003;113(1/2):205-207.
(174) Coggins CR, Murrelle EL, Carchman RA, Heidbreder C. Light and intermittent cigarette smokers: a review (1989-2009). Psychopharmacology (Berl) 2009 Dec;207(3):343-363.
(175) Cokkinides V, Bandi P, McMahon C, Jemal A, Glynn T, Ward E. Tobacco control in the United States--recent progress and opportunities. CA Cancer.J.Clin. 2009 Nov-Dec;59(6):352-365.
(176) Colby SM, Monti PM, O'Leary Tevyaw T, Barnett NP, Spirito A, Rohsenow DJ, et al. Brief motivational intervention for adolescent smokers in medical settings. Addict.Behav. 2005 Jun;30(5):865-874.
(177) Connell AM, Dishion TJ, Yasui M, Kavanagh K. An adaptive approach to family intervention: linking engagement in family-centered intervention to reductions in adolescent problem behavior. J.Consult.Clin.Psychol. 2007 Aug;75(4):568-579.
(178) Conrad KM, Flay BR, Hill D. Why children start smoking cigarettes: predictors of onset. Br.J.Addict. 1992 Dec;87(12):1711-1724.
(179) Coteanu I, Seche L. Dicționarul explicativ al limbii române. II ed. Bucureşti: Univers Enciclopedic; 1998.
(180) Csoboth CS. Dohányzás összefüggése az életminőséggel a magyar lakosság körében. In: Kopp M, Kovács M, editors. A magyar népesség életminősége az ezredfordulón Budapest: Semmelweis Kiadó; 2006.
(181) Currie CE, Samdal O, Boyce , W. , & Smith. Health Behaviour in School-aged Children: A WHO Cross-National Study (HBSC), Research Protocol for the 2001/2002. 2001.
(182) Darling N, Cumsille P. Theory, measurement, and methods in the study of family influences on adolescent smoking. Addiction 2003 May;98 Suppl 1:21-36.
(183) de Leeuw RN, Scholte RH, Sargent JD, Vermulst AA, Engels RC. Do interactions between personality and social-environmental factors explain smoking development in adolescence? J.Fam.Psychol. 2010 Feb;24(1):68-77.
(184) de Leeuw RNH, Engels RCME, Vermulst AA, Scholte RHJ. Do smoking attitudes predict behaviour? A longitudinal study on the bi-directional relations between adolescents' smoking attitudes and behaviours. Addiction 2008;103(10):1713-1721.
(185) de Vries H, Candel M, Engels R, Mercken L. Challenges to the peer influence paradigm: results for 12-13 year olds from six European countries from the European Smoking Prevention Framework Approach study. Tob.Control 2006 Apr;15(2):83-89.
(186) Delcheva E. Implementing EU Legislation in Bulgaria: Challenges and Opportunities. Eurohealth 2002;8(4).
(187) Delnevo CD, Gundersen DA, Hrywna M, Wackowski O, Zuwallack RS. Estimates of cigarette smoking from the NJ adult tobacco survey: real or spurious? Am.J.Health Behav. 2010 Sep-Oct;34(5):585-592.
(188) DeVore ER, Ginsburg KR. The protective effects of good parenting on adolescents. Curr.Opin.Pediatr. 2005 Aug;17(4):460-465.
(189) DiClemente CC, Prochaska JO, Fairhurst SK, Velicer WF, Velasquez MM, Rossi JS. The process of smoking cessation: an analysis of precontemplation, contemplation, and preparation stages of change. J.Consult.Clin.Psychol. 1991 Apr;59(2):295-304.
(190) Dijk F, Reubsaet A, de Nooijer J, de Vries H. Smoking status and peer support as the main predictors of smoking cessation in adolescents from six European countries. Nicotine Tobacco Res. 2007 09/02;9:495-504.
(191) DiNapoli PP. Early initiation of tobacco use in adolescent girls: key sociostructural influences. Applied Nursing Research 2009;22(2):126-132.

(192) Dino GA, Horn KA, Goldcamp J, Maniar SD, Fernandes A, Massey CJ. Statewide demonstration of not on tobacco: a gender-sensitive teen smoking cessation program. J.Sch.Nurs. 2001 Apr;17(2):90-97.
(193) Ditre JW, Coraggio JT, Herzog TA. Associations between parental smoking restrictions and adolescent smoking. Nicotine Tobacco Res. 2008 06;10(6):975-983.
(194) Donovan KA. Smoking Cessation Programs for Adolescents. J.Sch.Nurs. 2000;16(4):36-43.
(195) Doran CM, Girgis A, Sanson-Fisher RW. Smoking by adolescents: three years later, there's even larger revenue but little for prevention. Aust.N.Z.J.Public Health 1998;22(3 Suppl):321-323.
(196) Doubeni CA, Li WJ, Fouayzi H, DiFranza JR. Perceived Accessibility of Cigarettes Among Youth A Prospective Cohort Study. Am.J.Prev.Med. 2009;36(3):239-242.
(197) Dubiel B, Zatoński W. Ocena wpływu edukacji zdrowotnej prowadzonej przez rodziców na zapobieganie paleniu papierosów wśród dzieci i młodzieży. Medycyn6a Praktyczna - Pediatria 2006(6).
(198) Duda G, Wichura A, Tabat K. Palenie tytoniu i podstawowe wskaźniki stanu odżywienia młodzieży szkół ponadpodstawowych. Prz. Lek. 2008;65(10):455-457.
(199) Dudziak U. Kościół wobec rodziny zagrożonej dymem tytoniowym. Zesz Nauk Ochr Zdr Zdr Publ Zarz 2009;VII(2):91-98.
(200) Dudziak U. Rola nauczycieli w profilaktyce palenia tytoniu.
(201) Durkin SJ, Biener L, Wakefield MA. Effects of different types of antismoking ads on reducing disparities in smoking cessation among socioeconomic subgroups. Am.J.Public Health 2009 Dec;99(12):2217-2223.
(202) Eaton DK, Kann L, Kinchen S, Shanklin S, Ross J, Hawkins J, et al. Youth risk behavior surveillance - United States, 2009. MMWR Surveill.Summ. 2010 Jun 4;59(5):1-142.
(203) Edwards R, Brown JS, Hodgson P, Kyle D, Reed D, Wallace B. An action plan for tobacco control at regional level. Public Health 1999 Jul;113(4):165-170.
(204) Eisenberg ME, Forster JL. Adolescent smoking behavior: measures of social norms. Am.J.Prev.Med. 2003;25(2):122-128.
(205) Ellickson PL, Tucker JS, Klein DJ. Sex differences in predictors of adolescent smoking cessation. Health Psychology 2001;20(3):186-195.
(206) Emberson JR, Whincup PH, Morris RW, Walker M. Reducing social inequalities and the prevention of coronary heart disease. Int J Epidemiol 2004;33(5):1152-1153.
(207) Engels RC, Vitaro F, Blokland ED, de Kemp R, Scholte RH. Influence and selection processes in friendships and adolescent smoking behaviour: the role of parentalsmoking. J. Adolesc. 2004;27(5):351-544.
(208) Engels RC, Knibbe RA, Drop MJ, de Haan YT. Homogeneity of cigarette smoking within peer groups: influence or selection? Health Educ.Behav. 1997 Dec;24(6):801-811.
(209) Erguder T, Cakir B, Aslan D, Warren CW, Jones NR, Asma S. Evaluation of the use of Global Youth Tobacco Survey (GYTS) data for developing evidence-based tobacco control policies in Turkey. BMC Public Health 2008 Dec 15;8 Suppl 1:S4.
(210) Erikson EH. Identity, youth and crisis. : W. W. Norton & Company; 1994.
(211) Ershler J, Leventhal H, Fleming R, Glynn K. The quitting experience for smokers in sixth through twelfth grades. Addict.Behav. 1989;14(4):365-378.
(212) Etter JF. Associations between smoking prevalence, stages of change, cigarette consumption, and quit attempts across the United States. Prev.Med. 2004 Mar;38(3):369-373.
(213) Farcasanu D, Lavrov A. Smoking - pregnant women and new mothers in Romania. Available at: http://medic.pulsmedia.ro/article--x-Studiu_Clinic-Fumatul_la_mamele_cu_sugari--5397.html.
(214) Feinson JA, Chidekel A. Knowledge and attitudes about smoking and environmental tobacco smoke: a comparison of parents and children attending upper and lower income pediatric sites. Del.Med.J. 2008 Jun;80(6):211-219.
(215) Feng Xiao Li, Robson PJ, Ashbury FD, Juanita Hatcher J, Bryant HE. Smoking Frequency, Prevalence and Trends, and Their Socio-demographic Associations in Alberta, Canada. Canadian Journal of Public Health November/December 2009:453-458.

(216) Fergusson DM, Horwood LJ, Boden JM, Jenkin G. Childhood social disadvantage and smoking in adulthood: results of a 25-year longitudinal study. Addiction 2007;102(3):475-482.
(217) Fidler JA, West R, van Jaarsveld CH, Jarvis MJ, Wardle J. Smoking status of step-parents as a risk factor for smoking in adolescence. Addiction 2008 Mar;103(3):496-501.
(218) Fite PJ, Colder CR, Lochman JE, Wells KC. The relation between childhood proactive and reactive aggression and substance use initiation. J.Abnorm.Child Psychol. 2008 Feb;36(2):261-271.
(219) Flay BR. Understanding environmental, situational and intrapersonal risk and protective factors for youth tobacco use: the Theory of Triadic Influence. Nicotine Tob.Res. 1999;1 Suppl 2:S111-4; discussion 569-70.
(220) Flay BR. Youth tobaco use: risks, patterns and control. In: Slade J, Orleans CT, editors. Nicotine addiction: Principles and management New York: Oxford University Press; 1993. p. 365-384.
(221) Flay BR, Petraitis J, Hu FB. Psychosocial risk and protective factors for adolescent tobacco use. Nicotine Tob.Res. 1999;1 Suppl 1:S59-65.
(222) Fleming R, Leventhal H, Glynn K, Ershler J. The role of cigarettes in the initiation and progression of early substance use. Addict.Behav. 1989;14(3):261-272.
(223) Forrester K, Biglan A, Severson HH, Smolkowski K. Predictors of smoking onset over two years. Nicotine Tob.Res. 2007 Dec;9(12):1259-1267.
(224) Forster JL, Widome R, Bernat DH. Policy interventions and surveillance as strategies to prevent tobacco use in adolescents and young adults. Am.J.Prev.Med. 2007 Dec;33(6 Suppl):S335-9.
(225) Forster M, Jones AM. The Role of Tobacco Taxes in Starting and Quitting Smoking: Duration Analysis of British Data. Journal of the Royal Statistical Society.Series A (Statistics in Society) 2001;164(3):517-547.
(226) Foshee V, Bauman KE. Parental and peer characteristics as modifiers of the bond-behavior relationship: an elaboration of control theory. J.Health Soc.Behav. 1992 Mar;33(1):66-76.
(227) Foura G. World record of Greece in smoking [Παγκόσμιο ρεκορ η Ελλάδα στο κάπνισμα] Kathimerini [Καθημερινή]. Available at: http://www.nonsmokersclub.com/content/view/274/2/.
(228) Francis K, Katsani G, Sotiropoulou X, Roussos A, Roussos C. Cigarette smoking among Greek adolescents: behavior, attitudes, risk, and preventive factors. Subst.Use Misuse 2007;42(8):1323-1336.
(229) Freeman B, Chapman S, Rimmer M. The case for the plain packaging of tobacco products. Addiction 2008 Apr;103(4):580-590.
(230) Fritz DJ. Adolescent smoking cessation: how effective have we been? J.Pediatr.Nurs. 2000 Oct;15(5):299-306.
(231) Fritz DJ, Wider LC, Hardin SB, Horrocks M. Program strategies for adolescent smoking cessation. J.Sch.Nurs. 2008 Feb;24(1):21-27.
(232) Gacek M. Rozpowszechnienie substancji psychoaktywnych wśród młodzieży szkół ponadgimnazjalnych w Krakowie. Wych. Fiz. i Zdr. 2007;54:17-19.
(233) Gacek M. Substancje psychoaktywne w stylu życia młodzieży licealnej w Krakowie. Wychow. Fiz. i Zdr. 2006;53(5):18-20.
(234) Gallefoss F. Norway must again increase the intervention against tobacco. Tidsskr.Nor.Laegeforen. 2010 Jul 1;130(13):1325.
(235) Ganatra HA, Kalia S, Haque AS, Khan JA. Cigarette smoking among adolescent females in Pakistan. Int.J.Tuberc.Lung Dis. 2007 Dec;11(12):1366-1371.
(236) Gartner CE, Barendregt JJ, Hall WD. Predicting the future prevalence of cigarette smoking in Australia: how low can we go and by when? Tob.Control 2009 Jun;18(3):183-189.
(237) Gau SS, Chong MY, Yang P, Yen CF, Liang KY, Cheng AT. Psychiatric and psychosocial predictors of substance use disorders among adolescents: longitudinal study. Br.J.Psychiatry 2007 Jan;190:42-48.
(238) Geckova A, van Dijk JP, van Ittersum-Gritter T, Groothoff JW, Post D. Determinants of adolescents' smoking behaviour: a literature review. Cent.Eur.J.Public Health 2002 Sep;10(3):79-87.
(239) Geckova AM, Stewart R, van Dijk JP, Orosova O, Groothoff JW, Post D. Influence of socio-economic status, parents and peers on smoking behaviour of adolescents. Eur.Addict.Res. 2005;11(4):204-209.

(240) Germain D, Wakefield MA, Durkin SJ. Adolescents' perceptions of cigarette brand image: does plain packaging make a difference? J.Adolesc.Health 2010 Apr;46(4):385-392.
(241) Giannakopoulos G, Panagiotakos D, Mihas C, Tountas Y. Adolescent smoking and health-related behaviours: interrelations in a Greek school-based sample. Child Care Health Dev. 2009 Mar;35(2):164-170.
(242) Giannakopoulos G, Tzavara C, Dimitrakaki C, Kolaitis G, Rotsika V, Tountas Y. Emotional, behavioural problems and cigarette smoking in adolescence: findings of a Greek cross-sectional study. BMC Public Health 2010 Feb 3;10:57.
(243) Gidwani PP, Sobol A, Gortmaker SL, DeJong W, Perrin JM. Television Viewing and Initiation of Smoking Among Youth. Pediatrics 2002 09;110(3):505.
(244) Gilman SE, Rende R, Boergers J, Abrams DB, Buka SL, Clark MA, et al. Parental smoking and adolescent smoking initiation: an intergenerational perspective on tobacco control. Pediatrics 2009 Feb;123(2):e274-81.
(245) Giordano GN, Lindstrom M. The impact of changes in different aspects of social capital and material conditions on self-rated health over time: A longitudinal cohort study. Soc.Sci.Med. 2010;70(5):700-710.
(246) Giovino GA. Epidemiology of tobacco use among US adolescents. Nicotine Tob.Res. 1999;1 Suppl 1:S31-40.
(247) Glendinning A, Schucksmith J. Family life and smoking in adolescence. Soc.Sci.Med. 1997 01;44(1):93.
(248) Glynn TJ, Anderson DM, Schwarz L. Tobacco-use reduction among high-risk youth: Recommendations of a national cancer institute expert advisory panel. Preventive Med 1991;20:279-291.
(249) Glynn T, Seffrin JR, Brawley OW, Grey N, Ross H. The globalization of tobacco use: 21 challenges for the 21st century. CA Cancer.J.Clin. 2010 Jan-Feb;60(1):50-61.
(250) Gomez Cruz G, Barrueco Ferrero M, Maderuelo Fernandez A, Aparicio Coca I, Torrecilla Garcia M. [Predictive factors of smoking behaviour in secondary school children]. An Pediatr (Barc) 2008;68(5):454-61.
(251) Gong J, Chen X, Guo Q, Zhou D, Palmer PH, Zhang D, et al. Are private school students more likely to smoke than public school students in China? Prev.Med. 2006 Aug;43(2):117-121.
(252) Greenberger E, Chen C, Tally SR, Qi D. Family, peer, and individual correlates of depressive symptomatology among U.S. and Chinese adolescents. J.Consult.Clin.Psychol. 2000 Apr;68(2):209-219.
(253) Griesbach D, Amos A, Currie C. Adolescent smoking and family structure in Europe. Soc.Sci.Med. 2003 Jan;56(1):41-52.
(254) Griffin KW, Epstein JA, Botvin GJ, Spoth RL. Social competence and substance use among rural youth: mediating role of social benefit expectancies of use. J Youth Adolesc 2001;30:485-498.
(255) Grigoriou A. Smoking students [Παφ και πουφ οι μαθητές]. Kiriakatiki Eleutherotipia [Κυριακάτικη Ελευθεροτυπία]. Available at: http://www.nonsmokersclub.com/content/view/260/2/.
(256) Grimshaw GM, Stanton A. Tobacco cessation interventions for young people. Cochrane Database Syst.Rev. 2006 Oct 18;(4)(4):CD003289.
(257) Guilamo-Ramos V, Jaccard J, Dittus P, Gonzalez B, Bouris A, Banspach S. The Linking Lives health education program: a randomized clinical trial of a parent-based tobacco use prevention program for african american and latino youths. Am.J.Public Health 2010 Sep;100(9):1641-1647.
(258) Hall JA, Valente TW. Adolescent smoking networks: the effects of influence and selection on future smoking. Addict.Behav. 2007 Dec;32(12):3054-3059.
(259) Hamilton G, Cross D, Resnicow K, Hall M. A school-based harm minimization smoking intervention trial: outcome results. Addiction 2005 May;100(5):689-700.
(260) Hammond D. Smoking behaviour among young adults: beyond youth prevention. Tob.Control 2005 Jun;14(3):181-185.
(261) Hammond D, Fong GT, McNeill A, Borland R, Cummings KM. Effectiveness of cigarette warning labels in informing smokers about the risks of smoking: findings from the International Tobacco Control (ITC) Four Country Survey. Tob.Control 2006 Jun;15 Suppl 3:iii19-25.

(262) Hammond D, Reid JL, Driezen P, Cummings KM, Borland R, Fong GT, et al. Smokers' use of nicotine replacement therapy for reasons other than stopping smoking: findings from the ITC Four Country Survey. Addiction 2008 Oct;103(10):1696-1703.
(263) Hanewinkel R. Palenie tytoniu w filmach z Hollywood. Wpływ na palenie wśród nastolatków ze szczególnym odniesieniem do niemieckich nastolatków. Prz Lek 2007;64(10):615-617.
(264) Hanson K, Allen S, Jensen S, Hatsukami D. Treatment of adolescent smokers with the nicotine patch. Nicotine Tob.Res. 2003 Aug;5(4):515-526.
(265) Hazemba A, Siziya S, Muula AS, Rudatsikira E. Gender specific factors associated with having stopped smoking among in-school adolescents in Ukraine: results from the Global Youth Tobacco Survey 2005. BMC Res.Notes 2010 Mar 16;3:76.
(266) Heikkinen AM, Broms U, Pitkaniemi J, Koskenvuo M, Meurman J. Key Factors in Smoking Cessation Intervention Among 15-16-Year-Olds. Behavioral Medicine 2009;35(3):93-99.
(267) Henderson M, Ecob R, Wight D, Abraham C. What explains between-school differences in rates of smoking? BMC Public Health 2008 Jun 20;8:218.
(268) Herd N, Borland R. The natural history of quitting smoking: findings from the International Tobacco Control (ITC) Four Country Survey. Addiction 2009 Dec;104(12):2075-2087.
(269) Herd N, Borland R, Hyland A. Predictors of smoking relapse by duration of abstinence: findings from the International Tobacco Control (ITC) Four Country Survey. Addiction 2009 Dec;104(12):2088-2099.
(270) Heyman RB. Turning the tide: tobacco and the 21st century. Adolesc.Med. 2000 Feb;11(1):69-78.
(271) Hibbel B, Anderson B, Bjarnsson T, Ahlstrom S, Balakirev O, Kokkevi A, et al. Alcohol and other drugs among students in 35 European Countries. The ESPAD Report 2003. Stockholm: CAN; 2004.
(272) Hibell B, et.al. The 1999 ESPAD Report. Alcohol and Other Drug Use in 30 European Countries.CAN. Sweden; 2000.
(273) Hibell B, Guttormsson U, Ahlström S, Balakireva O, Bjarnason T, Kokkevi A, et al. The 2007 ESPAD Report. Substance Use Among Students in 35 European Countries. 2009.
(274) Hill D, Carroll T. Australia's national tobacco campaign. Tob Control 2003;12:9-14.
(275) Hill AJ, Boudreau F, Amyot E, Dery D, Godin G. Predicting the stages of smoking acquisition according to the theory of planned behavior. J.Adolesc.Health 1997 Aug;21(2):107-115.
(276) Hill KG, Hawkins JD, Catalano RF, Abbott RD, Guo J. Family influences on the risk of daily smoking initiation. J.Adolesc.Health 2005 Sep;37(3):202-210.
(277) Hitchman SC, Fong GT, Borland R, Hyland A. Predictors of smoking in cars with nonsmokers: findings from the 2007 Wave of the International Tobacco Control Four Country Survey. Nicotine Tob.Res. 2010 Apr;12(4):374-380.
(278) Hohm E, Blomeyer D, Schmidt MH, Esser G, Laucht M. Early consumers of alcohol and tobacco - A group at risk? Zeitschrift Fur Psychiatrie Psychologie Und Psychotherapie 2007;55(3):155-165.
(279) Hollis JF, Polen MR, Whitlock EP, Lichtenstein E, Mullooly JP, Velicer WF, et al. Teen reach: outcomes from a randomized, controlled trial of a tobacco reduction program for teens seen in primary medical care. Pediatrics 2005 Apr;115(4):981-989.
(280) Horn K, Dino G, Kalsekar I, Mody R. The impact of Not On Tobacco on teen smoking cessation. J. Adolescent Res. 2005;20(6):640-661.
(281) Horn K, Fernandes A, Dino G, Massey CJ, Kalsekar I. Adolescent nicotine dependence and smoking cessation outcomes. Addict.Behav. 2003 Jun;28(4):769-776.
(282) Horn K, Noerachmanto N, Dino G, Manzo K, Brayboy M. Who wants to quit? Characteristics of American Indian youth who seek smoking cessation intervention. J.Community Health 2009 Apr;34(2):153-163.
(283) Horn KA, Dino GA, Kalsekar ID, Fernandes AW. Appalachian teen smokers: not on tobacco 15 months later. Am.J.Public Health 2004 Feb;94(2):181-184.

(284) Hosking W, Borland R, Yong HH, Fong G, Zanna M, Laux F, et al. The effects of smoking norms and attitudes on quitting intentions in Malaysia, Thailand and four Western nations: A cross-cultural comparison. Psychol.Health 2009;24(1):95-107.
(285) Hovestadt AJ, Anderson WT, Piercy FP. A family origin scale. J Marital Fam. Ther. 1885;11:287-297.
(286) Hublet A, De Bacquer D, Valimaa R, Godeau E, Schmid H, Rahav G, et al. Smoking trends among adolescents from 1990 to 2002 in ten European countries and Canada. BMC Public Health 2006 Nov 10;6:280.
(287) Huk-Wieliczuk E. Zachowania ryzykowne młodzieży z terenów przygranicznych Polski i Białorusi. Zdr Publ 2004;114(2):172-176.
(288) Hurt RD, Croghan GA, Beede SD, Wolter TD, Croghan IT, Patten CA. Nicotine patch therapy in 101 adolescent smokers: efficacy, withdrawal symptom relief, and carbon monoxide and plasma cotinine levels. Arch.Pediatr.Adolesc.Med. 2000 Jan;154(1):31-37.
(289) Huver RME, Engels RCME, de Vries H. Are anti-smoking parenting practices related to adolescent smoking cognitions and behavior? Health Educ.Res. 2006;21(1):66-77.
(290) Hyland A, Borland R, Li Q, Yong HH, McNeill A, Fong GT, et al. Individual-level predictors of cessation behaviours among participants in the International Tobacco Control (ITC) Four Country Survey. Tob.Control 2006 Jun;15 Suppl 3:iii83-94.
(291) Hyland A, Laux FL, Higbee C, Hastings G, Ross H, Chaloupka FJ, et al. Cigarette purchase patterns in four countries and the relationship with cessation: findings from the International Tobacco Control (ITC) Four Country Survey. Tob.Control 2006 Jun;15 Suppl 3:iii59-64.
(292) Iannotti RJ, Kogan MD, Janssen I, Boyce WF. Patterns of adolescent physical activity, screen-based media use, and positive and negative health indicators in the U.S. and Canada. J.Adolesc.Health 2009 May;44(5):493-499.
(293) Jackson ES, Tucker CM, Herman KC. Health value, perceived social support, and health self-efficacy as factors in a health-promoting lifestyle. Journal of American College Health 2007;56(1):69-74.
(294) Jacobs MA, Anderson LS, Champagne E, Karush N, Richman SJ, Knapp PH. Orality, impulsivity and cigarette smoking in men: further findings in support of a theory. J.Nerv.Ment.Dis. 1966 Sep;143(3):207-219.
(295) Jakubik A, Brodniak W, Pałyska M, Raduj J, Welbel S. Psychospołeczne uwarunkowania nikotynizmu. Alkohol Narkom 1995;21(4):65-90.
(296) Jamison B, Muula AS, Siziya S, Graham S, Rudatsikira E. Cigarette smoking among school-going adolescents in Lithuania: Results from the 2005 Global Youth Tobacco Survey. BMC Res.Notes 2010 May 7;3:130.
(297) Jarrett T, Horn K, Zhang J. Teen Perceptions of Facilitator Characteristics in a School-Based Smoking Cessation Program. J.Sch.Health 2009 07;79(7):297-303.
(298) Jarvinen M, Ostergard J. Governing adolescent drinking. Youth Soc. 2009;40(3):377-402.
(299) Jessor R, Jessor SL. Problem behaviour and psychological development. New York: Academic Press; 1977.
(300) Jha P, Peto R, Zatonski W, Boreham J, Jarvis MJ, Lopez AD. Social inequalities in male mortality, and in male mortality from smoking: indirect estimation from national death rates in England and Wales, Poland, and North America. Lancet 2006;368(9533):367-370.
(301) Joffe A, McNeely C, Colantuoni E, An M, Wang W, Scharfstein D. Evaluation of school-based smoking-cessation interventions for self-described adolescent smokers. Pediatrics 2009 08/27;124(2):e187-94.
(302) Johnson CC, Webber LS, Myers L, Boris NW, Berenson GS. Co-use of alcohol and tobacco among ninth-graders in Louisiana. Prev.Chronic Dis. 2009 Jul;6(3):A85.
(303) Johnston L, O'Malley P, Bachman J, Schulenberg J. Trends in prevalence of use of cigarettes in grades 8, 10, and 12. Table 1. 2009.
(304) Jokiel M. Zmiany w strukturze palenia w Polsce w latach 1976, 1986, 1990. Prz. Epidemiol. 1996;50:299-307.

(305) Joosens L. Effective Tobacco Control Policies is 28 European countries. Report of the European Network of Smoking Prevention (ENSP). 2004.
(306) Jorenby DE, Leischow SJ, Nides MA, Rennard SI, Johnston JA, Hughes AR, et al. A controlled trial of sustained-release bupropion, a nicotine patch, or both for smoking cessation. N.Engl.J.Med. 1999 Mar 4;340(9):685-691.
(307) Kafka RR, London P. Communication in relationships and adolescent substance use: The influence of parents and friends. Adolescence 1991;26:587-598.
(308) Kaleta D, Koziel A, Miskiewicz P. MPOWER--strategy for fighting the global tobacco epidemic. Med.Pr. 2009;60(2):145-149.
(309) Kandel DB. The parental and peer contexts of adolescent deviance: An algebra of interpersonal influences. Journal of Drug Issues 1996;26:289-315.
(310) Kandel DB, Davies M. From adolescence to adulthood. Am.J.Psychiatry 1996 Dec;153(12):1654.
(311) Karekla M, Symeou A, Tsangari H, Kapsou M, Constantinou M. Smoking prevalence and tobacco exposure among adolescents in Cyprus. Eur.J.Public Health 2009 Dec;19(6):655-661.
(312) Kealey KA, Ludman EJ, Marek PM, Mann SL, Bricker JB, Peterson AV. Design and implementation of an effective telephone counseling intervention for adolescent smoking cessation. J.Natl.Cancer Inst. 2009 10/21;101(20):1393-1405.
(313) Kegler MC, Escoffery C, Groff A, Butler S, Foreman A. A qualitative study of how families decide to adopt household smoking restrictions. Fam.Community Health 2007 Oct-Dec;30(4):328-341.
(314) Kelly AB, Haynes MA, Marlatt GA. The impact of adolescent tobacco-related associative memory on smoking trajectory: an application of negative binomial regression to highly skewed longitudinal data. Addict.Behav. 2008 May;33(5):640-650.
(315) Kemm J. A model to predict the results of changes in smoking behaviour on smoking prevalence. J Public Health Med 2003;25:318-324.
(316) Kestila L, Koskinen S, Martelin T, Rahkonen O, Pensola T, Pirkola S, et al. Influence of parental education, childhood adversities, and current living conditions on daily smoking in early adulthood. Eur.J.Public Health 2006;16(6):617-626.
(317) Killen JD, Robinson TN, Ammerman S, Hayward C, Rogers J, Stone C, et al. Randomized clinical trial of the efficacy of bupropion combined with nicotine patch in the treatment of adolescent smokers. J.Consult.Clin.Psychol. 2004 Aug;72(4):729-735.
(318) Kinard BR, Webster C. The Effects of Advertising, Social Influences, and Self-Efficacy on Adolescent Tobacco Use and Alcohol Consumption. J.Consumer Aff. 2010;44(1):24-43.
(319) Klatt C, Berg CJ, Thomas JL, Ehlinger E, Ahluwalia JS, An LC. The role of peer e-mail support as part of a college smoking-cessation website. Am.J.Prev.Med. 2008 Dec;35(6 Suppl):S471-8.
(320) Kleinjan M, Engels RCME, van Leeuve J, Brug Jea. Adolescent smoking cessation: The roles of motivation to quit, nicotine dependence, and parental and peer smoking. Psychologie & Gezondheid 2009;37(5):252-266.
(321) Kliewer W, Murrelle L. Risk and protective factors for adolescent substance use: findings from a study in selected Central American countries. J.Adolesc.Health 2007 May;40(5):448-455.
(322) Kłos J, Gromadecka-Sutkiewicz M. Palenie papierosów jako aspekt stylu życia wśród 18-letnich uczniów poznańskich szkół. Prz Lek 2008;65(10):553-559.
(323) Kobus K. Peers and adolescent smoking. Addiction 2003 May;98 Suppl 1:37-55.
(324) Kochan D, Kowalczuk A. Kierunki działań pielęgniarki szkolnej w rozpoznawaniu i zwalczaniu problemów uzależnień w środowisku nauczania. Pielęg Pol 2004(1/2):13-17.
(325) Kodl MM, Mermelstein R. Beyond modeling:parenting practices, parental smoking history, and adolescent cigarette smoking. Addict.Behav. 2004;29(1):17-32.
(326) Kohler CL, Schoenberger YM, Tseng TS, Ross L. Correlates of transitions in stage of change for quitting among adolescent smokers. Addict.Behav. 2008 Dec;33(12):1615-1618.
(327) Kokkevi A, Richardson C, Florescu S, Kuzman M, Stergar E. Psychosocial correlates of substance use in adolescence: a cross-national study in six European countries. Drug Alcohol Depend. 2007 Jan 5;86(1):67-74.

(328) Kokkevi AE, Arapaki AA, Richardson C, Florescu S, Kuzman M, Stergar E. Further investigation of psychological and environmental correlates of substance use in adolescence in six European countries. Drug Alcohol Depend. 2007 May 11;88(2-3):308-312.
(329) Kolasa E, Hulanicka B. Czy ekspozycja na palenie papierosów w środowisku rodzinnym wpływa na tempo rozwoju dziewcząt? Prz. Epidemiol. 1998;52(3):339-350.
(330) Korn L, Magnezi R. Cigarette and nargila (water pipe) use among Israeli Arab high school students: prevalence and determinants of tobacco smoking. ScientificWorldJournal 2008 May 22;8:517-525.
(331) Kostiukow A, Pioterek A, Głowacka MD, Mojs E. Nikotynizm wśród gimnazjalistów województw wielkopolskiego. Probl Hig Epidemiol 2007;88(suppl 3):70-74.
(332) Kotarov G. Bulgarian National Policy Related to ETS. In Policies to Reduce Exposure to Environmental Tobacco Smoke. 2000: EUR/ 00/ 5020495. WHO- EURO.
(333) National Policy on Smoking in the Workplace and Public Placesin. In: 3-rd European Conference on Tobacco or Health "Closing the Gaps. Solidarity for Health". : Abstract Book, p. 65.
(334) Kovács E, Pikó B. A család egészségvédő hatása serdülők körében. Mentalhigiené és pszichoszomatika 2009;10(3):223-237.
(335) Koval JJ, Pederson LL, Mills CA, McGrady GA, Carvajal SC. Models of the relationship of stress, depression, and other psychosocial factors to smoking behavior: a comparison of a cohort of students in grades 6 and 8. Prev.Med. 2000 Jun;30(6):463-477.
(336) Kowalewska A. Wiek inicjacji nikotynowej a częstość palenia tytoniu przez młodzież 15-letnią w Polsce. Prz. Lek. 2008;65(10):546-548.
(337) Kowalewska A, Mazur J, Woynarowska B. Charakterystyka wybranych czynników psychospołecznych u 15-latków, którzy palą tytoń i rzucili palenie. Prz. Lek. 2007;64(10):747--751.
(338) Kowalewska A, Mazur J, Woynarowska B. Palenie tytoniu przez młodzież w okresie dojrzewania a jej środowisko społeczne. Rocz. Państ. Zakł. Hig. 2004;55(4):363-375.
(339) Kowalewska A, Mazur J, Woynarowska B.Czynniki związane z paleniem tytoniu przez młodzież szkolną w okresie dojrzewania. Zdr. Publ. 2001;111(4):238-244.
(340) Kowalewska A, Woynarowska B, Mazur J. Opinie młodzieży w wieku 15 lat o paleniu tytoniu w najbliższej przyszłości, reakcjach ze strony osób znaczących i przekonaniach dotyczących palenia. Zdr. Publ. 2000: 110 (7/8) s.267-272 2000;110(7/8):267-272.
(341) Kowalewska A. Tobacco smoking among girls in Poland between 1998 and 2008. Przegl.Lek. 2009;66(10):680-682.
(342) Kowalewska A, Mazur J. Palenie tytoniu przez członków rodziny w domu a zdrowie subiektywne nastolatków. Prz Lek 2008;65(10):549-552.
(343) Kowalska A, Stelmach W. Wpływ reklam produktów tytoniowych na zachowania uczestników konkursu „Rzuć palenie i wygraj". Prz. Lek. 2007;64(10):858-860.
(344) Koziel D, Naszydłowska E, Trawczyńska M, Czerwiak G. Zachowania zdrowotne młodzieży - kierunek działania dla edukacji zdrowotnej. Zdr Publ 2003;113(3/4):280-284.
(345) Kremers SP, de Vries H, Mudde AN, Candel M. Motivational stages of adolescent smoking initiation: predictive validity and predictors of transitions. Addict.Behav. 2004 Jun;29(4):781-789.
(346) Kumar R, O'Malley PM, Johnston LD. School tobacco control policies related to students' smoking and attitudes toward smoking: national survey results, 1999-2000. Health Educ.Behav. 2005 Dec;32(6):780-794.
(347) Kumra V, Markoff BA. Who's smoking now? The epidemiology of tobacco use in the United States and abroad. Clin.Chest Med. 2000 Mar;21(1):1-9, vii.
(348) Kuntsche EN. Progression of a General Substance Use Pattern among Adolescents in Switzerland? Investigationg the Relationship between Alcohol, Tobacco, and Cannabis Use over a 12-Year Period. Eur. Addict. Res. 2004;10:118-125.
(349) Kwiatkowska J, Wojciechowska A, Oblacińska A, Woynarowska B. Niektóre uwarunkowania palenia tytoniu przez uczniów w wieku 11-15 lat w Polsce. Zdr. Publ. 1998;108(11):436-439.
(350) Kyrlesi A, Soteriades ES, Warren CW, Kremastinou J, Papastergiou P, Jones NR, et al. Tobacco use among students aged 13-15 years in Greece: the GYTS project. BMC Public Health 2007 Jan 8;7:3.

(351) Labiris G, Voutsinas A, Niakas D. Preliminary evaluation of the school-smoking-prevention policy in Greece. Eur.J.Public Health 2005 Jun;15(3):329-330.
(352) Lampert T, Thamm M. Consumption of tobacco, alcohol and drugs among adolescents in Germany. Results of the German Health Interview and Examination Survey for Children and Adolescents (KiGGS). Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz 2007 May-Jun;50(5-6):600-608.
(353) Lancaster T, Stead LF. Self-help interventions for smoking cessation. Cochrane Database Syst. Rev. 2005;3(CD001118).
(354) Landrum Sterling K, Diamond PM, Dolan Mullen P, Pallonen U, Ford KH, McAlister AL. Smoking-related self-efficacy, beliefs, and intention: assessing factorial validity and structural relationships in 9th-12th grade current smokers. Addict.Behav. 2007 Sep;32(9):1863-1876.
(355) Lantz PM, Jacobson PD, Warner KE, Wasserman J, Pollack HA, Berson J, et al. Investing in youth tobacco control: a review of smoking prevention and control strategies. Tob.Control 2000 Mar;9(1):47-63.
(356) Laugesen M, Scollo M, Sweanor D, et. al. World's best practice in tobacco control. Tob Control 2000;9(2):228-236.
(357) Facultatea de Medicină Brasov, editor. Repere istorice ale obiceiului fumatului. A XXXIX - a Reuniune Nationala de Istoria Medicinei ; 12-15 iunie 2008; Brasov: Colegiul Medicilor; 2008.
(358) Leatherdale ST. School-based smoking cessation programs: do youth smokers want to participate in these programs? Addict.Behav. 2006 Aug;31(8):1449-1453.
(359) Leatherdale ST, Ahmed R, Kaiserman M. Marijuana use by tobacco smokers and nonsmokers: who is smoking what? CMAJ 2006 May 9;174(10):1399.
(360) Leatherdale ST, Cameron R, Brown KS, Jolin MA, Kroeker C. The influence of friends, family, and older peers on smoking among elementary school students: low-risk students in high-risk schools. Prev.Med. 2006 Mar;42(3):218-222.
(361) Leatherdale ST, Manske S, Kroeker C. Sex differences in how older students influence younger student smoking behaviour. Addict.Behav. 2006 Aug;31(8):1308-1318.
(362) Leatherdale ST, McDonald PW. Are the recommended taxonomies for the stages of youth smoking onset consistent with youth's perceptions of their smoking status? Can.J.Public Health 2006 Jul-Aug;97(4):316-319.
(363) Leatherdale ST, McDonald PW, Cameron R, Brown KS. A multilevel analysis examining the relationship between social influences for smoking and smoking onset. Am.J.Health Behav. 2005 Nov-Dec;29(6):520-530.
(364) Leatherdale ST, McDonald PW, Cameron R, Jolin MA, Brown KS. A multi-level analysis examining how smoking friends, parents, and older students in the school environment are risk factors for susceptibility to smoking among non-smoking elementary school youth. Prev.Sci. 2006 Dec;7(4):397-402.
(365) Leatherdale ST, Sparks R, Kirsh VA. Beliefs about tobacco industry (mal)practices and youth smoking behaviour: insight for future tobacco control campaigns (Canada). Cancer Causes Control 2006 Jun;17(5):705-711.
(366) Leischow SJ, Matthews E. Helping adolescent smokers quit: can telephone quitlines lead the way? J.Natl.Cancer Inst. 2009 10/21;101(20):1367-1368.
(367) Lenney W, Enderby B. "Blowing in the wind": a review of teenage smoking. Arch.Dis.Child. 2008 Jan;93(1):72-75.
(368) Leventhal H, Cleary PD. The smoking problem: a review of the research and theory in behavioral risk modification. Psychol.Bull. 1980 Sep;88(2):370-405.
(369) Levy SA, Westin AML, Reamy AM, Reyner JC, Syed T, Diamond GS. Communication about smoking between depressed adolescents and their parents. Nicotine Tobacco Res. 2010;12(3):191-197.
(370) Lewis PC, Harrell JS, Bradley C, Deng S. Cigarette use in adolescents: the Cardiovascular Health in Children and Youth Study. Res.Nurs.Health 2001 Feb;24(1):27-37.
(371) Li L, Yong HH, Borland R, Fong GT, Thompson ME, Jiang Y, et al. Reported awareness of tobacco advertising and promotion in China compared to Thailand, Australia and the USA. Tob.Control 2009 Jun;18(3):222-227.

(372) Li MD, Cheng R, Ma JZ, Swan GE. A meta-analysis of estimated genetic and environmental effects on smoking behavior in male and female adult twins. Addiction 2003 01;98(1):23.
(373) Li X, Stanton B, Feigelman S. Impact of perceived parental monitoring on adolescent risk behavior over 4 years. J.Adolesc.Health 2000 07;27(1):49-56.
(374) Lieb R, Schreier A, Pfister H, Wittchen HU. Maternal smoking and smoking in adolescents: a prospective community study of adolescents and their mothers. Eur.Addict.Res. 2003;9(3):120-130.
(375) Linardakis M, Sarri K, Bervanaki F, Markatzi J, Hatzis C, Flouri S, et al. Ten year evaluation of the initiation of a health education program in the schools of Crete. Paediatriki 2003;66:436-447.
(376) Lipkus IM, McBride CM, Pollak KI, Schwartz-Bloom R, Tilson E, Bloom PN. A randomized trial comparing the effects of self-help materials and proactive telephone counseling on teen smoking cessation. Health Psychol. 2004 07;23(4):397-406.
(377) Lloyd-Richardson E, Papandonatos G, Kazura A, Stanton C, Niaura R. Differentiating Stages of Smoking Intensity Among Adolescents: Stage-Specific Psychological and Social Influences. Journal of Consulting & Clinical Psychology 2002 08;70(4):998.
(378) Lopez AD, Collishaw NE, Piha T. A descriptive model of the cigarette epidemic in developed countries. Tob. Control 1994(3):242-247.
(379) Lotrean LM, Ionut C, de Vries H. Tobacco use among Romanian youth. Salud Publica Mex. 2006;48 Suppl 1:S107-12.
(380) Lotrean LM, Mesters I, Ionut C, de Vries H. Smoking among Romanian adolescents: do the gender differences exist? Pneumologia 2009 Oct-Dec;58(4):240-246.
(381) Lovato CY, Sabiston CM, Hadd V, Nykiforuk CI, Campbell HS. The impact of school smoking policies and student perceptions of enforcement on school smoking prevalence and location of smoking. Health Educ.Res. 2007 Dec;22(6):782-793.
(382) Luk JW, Farhat T, Iannotti RJ, Simons-Morton BG. Parent-child communication and substance use among adolescents: Do father and mother communication play a different role for sons and daughters? Addict.Behav. 2010;35(5):426-431.
(383) Lundborg P. Having the wrong friends? Peer effects in adolescent substance use. J.Health Econ. 2006;25(2):214-233.
(384) Ma GX, Shive SE, Tan Y, Thomas P, Man VL. Development of a culturally appropriate smoking cessation program for Chinese-American youth. J.Adolesc.Health 2004 Sep;35(3):206-216.
(385) Macaskill P, Pierce JP, Simpson JM, Lyle DM. Mass media-led antismoking campaign can remove the education gap in quitting behavior. Am.J.Public Health 1992 Jan;82(1):96-98.
(386) Mackenbach JP. Health Inequalities. Europe in Profile. 2005.
(387) Main C, et. al. Population tobacco control interventions and their effects on social inequalities in smoking: placing an equity lens on existing systematic reviews. BMC Public Health 2008;8:178.
(388) Manolova A, Serdeva S, Kotarov G, Dojchinova A. Environmental Tobacco Smoke and Health Risk in Childhood. Strategies for Tobacco Prevention in Bulgaria. Journal of Balkan Ecology 1998;1(4).
(389) Marcinkova D, Majdan M, Gergelova P, Rusnak M, Pekarcikova J, Baska T. Socioeconomic predictors of smoking behaviour among school-aged children, in the Slovakia. Bratislava Medical Journal-Bratislavske Lekarske Listy 2009;110(6):345-349.
(390) Markham WA, Lopez ML, Aveyard P, Herrero P, Bridle C, Comas A, et al. Mediated, moderated and direct effects of country of residence, age, and gender on the cognitive and social determinants of adolescent smoking in Spain and the UK: a cross-sectional study. BMC Public Health 2009;9.
(391) Marmon G. Zachowania zagrażające zdrowiu dzieci i młodzieży. Sztuka Leczenia 1996;2(2):89-96.
(392) Marshall L, Schooley M, Ryan H, Cox P, Easton A, Healton C, et al. Youth tobacco surveillance--United States, 2001-2002. MMWR Surveill.Summ. 2006 May 19;55(3):1-56.
(393) Mason MJ, Schmidt C, Abraham A, Walker L, Tercyak K. Adolescents' Social Environment and Depression: Social Networks, Extracurricular Activity, and Family Relationship Influences. Journal of Clinical Psychology in Medical Settings 2009;16(4):346-354.

(394) Mason P. Helping Smokers Change. A Resource Pack for Training Health Professionals European Partnership to Reduce Tobacco Dependence. : World Health Organization; 2001.
(395) Mathers CD, Loncar D. Projections of global mortality and burden of disease from 2002 to 2030. PLoS Medicine 2006;3:e442.
(396) Mathers M, Toumbourou JW, Catalano RF, Williams J, Patton GC. Consequences of youth tobacco use: a review of prospective behavioural studies. Addiction 2006 Jul;101(7):948-958.
(397) Mayhew KP, Flay BR, Mott JA. Stages in the development of adolescent smoking. Drug Alcohol Depend. 2000 May 1;59 Suppl 1:S61-81.
(398) Maziak W, Rzehak P, Keil U, Weiland SK. Smoking among adolescents in Muenster, Germany: increase in prevalence (1995-2000) and relation to tobacco advertising. Prev.Med. 2003 Feb;36(2):172-176.
(399) Mazur J, Woynarowska B. Mierniki nierówności społecznych w badaniach ankietowych młodzieży szkolne. Przegl. Epidemiol. 2004;58(2):377.
(400) Mazur J, Woynarowska B. Współwystępowanie palenia tytoniu i picia alkoholu w zespole zachowań ryzykownych u młodzieży szkolnej. Alkoh. Narkom. 2004;17(1-2):25-43.
(401) Mazur J, Woynarowska B. Palenie tytoniu wśród młodzieży szkolnej w Polsce i innych krajach w latach 1990-1998. Zdr. Publ. 1999;109(9):312-319.
(402) Mazur J, Woynarowska B, Kowalewska A. Wybrane wskaźniki palenia tytoniu przez młodzież 15-letnią w Polsce na tle międzynarodowych statystyk. Prz. Lek. 2008;65(10):541-545.
(403) Mazur J, Woynarowska B, Kowalewska A. Palenie tytoniu. Warszawa: UW WP; 2000.
(404) McCaul KD, Hockemeyer JR, Johnson RJ, Zetocha K, Quinlan K, Glasgow RE. Motivation to quit using cigarettes: a review. Addict.Behav. 2006 Jan;31(1):42-56.
(405) McClave AK, Whitney N, Thorne SL, Mariolis P, Dube SR, Engstrom M, et al. Adult tobacco survey - 19 States, 2003-2007. MMWR Surveill.Summ. 2010 Apr 16;59(3):1-75.
(406) McGee R, Williams S, Reeder A. Parental tobacco smoking behaviour and their children's smoking and cessation in adulthood. Addiction 2006 Aug;101(8):1193-1201.
(407) McNeill AD. The development of dependence on smoking in children. Br J Addict 1991 1991;86:589-592.
(408) Mędrela-Kuder E. Stosowanie substancji psychoaktywnych przez młodzież gimnazjalną. Wychow. Fiz. i Zdr. 2006;53(10):12-13.
(409) Mendez D, Warner KE, Courant PN. Has smoking cessation ceased? Expected trends in the prevalence of smoking in the United States. Am J Epidemiol 1998;148:249-258.
(410) Menning CL. Nonresident Fathers' Involvement and Adolescents' Smoking. J.Health Soc.Behav. 2006 Mar.;47(1):32-46.
(411) Mercken L, Snijders TA, Steglich C, de Vries H. Dynamics of adolescent friendship networks and smoking behavior: social network analyses in six European countries. Soc.Sci.Med. 2009 Nov;69(10):1506-1514.
(412) Mercken L, Snijders TA, Steglich C, Vertiainen E, de Vries H. Smoking-based selection and influence in gender-segregated friendship networks: a social network analysis of adolescent smoking. Addiction 2010 Apr 27.
(413) Mermelstein R. Ethnicity, gender and risk factors for smoking initiation: an overview. Nicotine Tob.Res. 1999;1 Suppl 2:S39-43, discussion S69-70.
(414) Mermelstein R. Explanations of ethnic and gender differences in youth smoking: a multi-site, qualitative investigation. The Tobacco Control Network Writing Group. Nicotine Tob.Res. 1999;1 Suppl 1:S91-8.
(415) Mihălţan FD. Ce nu ştie fumatorul român? Bucureşti: Editura Medicală; 2001.
(416) Miller A. Development of Cigarette Packaging. Artur D Little Inc. Liggett and Myers, October 14, 1963, 1963.
(417) Molarius A, Parsons RW, Dobson AJ, et. al. Trends in cigarette smoking in 36 populations from the early 1980s to the mid-1990s: findings from the WHO MONICA Project. Am J Public Health 2001;91(2):206-212.

(418) Molcho M, Craig W, Due P, Pickett W, Harel-Fisch Y, Overpeck M, et al. Cross-national time trends in bullying behaviour 1994-2006: findings from Europe and North America. Int.J.Public.Health. 2009 Sep;54 Suppl 2:225-234.
(419) Molyneux A, Lewis S, Antoniak M, Hubbard R, McNeill A, Godfrey C, et al. Is smoking a communicable disease? Effect of exposure to ever smokers in school tutor groups on the risk of incident smoking in the first year of secondary school. Tob.Control 2002 Sep;11(3):241-245.
(420) Moolchan ET, Ernst M, Henningfield JE. A review of tobacco smoking in adolescents: treatment implications. J.Am.Acad.Child Adolesc.Psychiatry 2000 Jun;39(6):682-693.
(421) Moolchan ET, Robinson ML, Ernst M, Cadet JL, Pickworth WB, Heishman SJ, et al. Safety and efficacy of the nicotine patch and gum for the treatment of adolescent tobacco addiction. Pediatrics 2005 Apr;115(4):e407-14.
(422) Moyer A. Psychomethodology: The Psychology of Human Participation in Science. Journal of Psychology of Science & Technology 2009 10;2(2):59-72.
(423) Muramoto ML, Wassum K, Connolly T, Matthews E, Floden L. Helpers Program A Pilot Test of Brief Tobacco Intervention Training in Three Corporations. Am.J.Prev.Med. 2010;38(3):S319-S326.
(424) Muula AS. Prevalence and determinants of cigarette smoking among adolescents in Blantyre City, Malawi. Tanzan Health.Res.Bull. 2007 Jan;9(1):48-51.
(425) Myers MG, Brown SA. A controlled study of a cigarette smoking cessation intervention for adolescents in substance abuse treatment. Psychol.Addict.Behav. 2005 Jun;19(2):230-233.
(426) Myers MG, MacPherson L. Smoking cessation efforts among substance abusing adolescents. Drug Alcohol Depend. 2004 Feb 7;73(2):209-213.
(427) Myung SK, McDonnell DD, Kazinets G, Seo HG, Moskowitz JM. Effects of Web- and computer-based smoking cessation programs: meta-analysis of randomized controlled trials. Arch.Intern.Med. 2009 May 25;169(10):929-937.
(428) Naidoo J, Wills J. Health promotion. Foundations for Practice. II ed.: Hartcourt Publishers Limited; 2000.
(429) Smoking - pregnant women and new mothers in Romania.
(430) Narcisse MR, Dedobbeleer N, Contandriopoulos AP, Ciampi A. Understanding the social patterning of smoking practices: a dynamic typology. Sociology of Health & Illness 2009;31(4):584.
(431) Nelson DE, FAU - Mowery P, Mowery P, FAU - Asman K, Asman K, FAU - Pederson LL, et al. Long-term trends in adolescent and young adult smoking in the United States: metapatterns and implications. - Am J Public Health.2008 May;98(5):905-15.Epub 2008 Apr 1. 2008(1541-0048 begin_of_the_skype_highlighting 1541-0048 end_of_the_skype_highlighting (Electronic); 0090-0036 (Linking)).
(432) Newman IM, Ward JM. The influence of parental attitude and behavior on early adolescent cigarette smoking. J.Sch.Health 1989 04;59(4):150-152.
(433) Ng N, Weinehall L, Ohman A. 'If I don't smoke, I'm not a real man'--Indonesian teenage boys' views about smoking. Health Educ.Res. 2007 Dec;22(6):794-804.
(434) Niaura R, Abrams DB. Smoking Cessation: Progress, Priorities, and Prospectus. Journal of Consulting & Clinical Psychology 2002 06;70(3):494.
(435) Nichter M. Smoking: what does culture have to do with it? Addiction 2003 May;98 Suppl 1:139-145.
(436) Nichter M, Nichter M, Vuckovic N, Tesler L, Adrian S, Ritenbaugh C. Smoking as a Weight-Control Strategy among Adolescent Girls and Young Women: A Reconsideration. Med.Anthropol.Q. 2004 Sep.;18(3):305-324.
(437) Nilsson M, Weinehall L, Bergstrom E, Stenlund H, Janlert U. Adolescent's perceptions and expectations of parental action on children's smoking and snus use; national cross sectional data from three decades. BMC Public Health 2009 Mar 4;9:74.
(438) Nilsson M, Stenlund H, Weinehall L, Bergström E, Janlert U. "I would do anything for my child, even quit tobacco": bonus effects from an intervention that targets adolescent tobacco use. Scand.J.Psychol. 2009 08/02;50(4):341-345.

(439) Nowicka-Sauer K, Łaska M, Sadlak-Nowicka J, Antkiewicz H, Bochniak M. Tobacco smoking problem in a group of 18-year-old high school students in the city of Gdańsk - finding causes and preventive methods. Adv Med Sci 2006;51 suppl(1):145-150.
(440) Obermayer JL, Riley WT, Asif O, Jean-Mary J. College smoking-cessation using cell phone text messaging. J.Am.Coll.Health 2004 Sep-Oct;53(2):71-78.
(441) O'Byrne KK, Haddock CK, Poston WSC. Parenting style and adolescent smoking. J.Adolesc.Health 2002 06;30(6):418-425.
(442) O'Connell ML, Freeman M, Jennings G, Chan W, Greci LS, Manta ID, et al. Smoking cessation for high school students. Impact evaluation of a novel program. Behav.Modif. 2004 Jan;28(1):133-146.
(443) O'Connor RJ, Kozlowski LT, Borland R, Hammond D, McNeill A. Relationship between constituent labelling and reporting of tar yields among smokers in four countries. J.Public.Health.(Oxf) 2006 Dec;28(4):324-329.
(444) O'Loughlin J, Karp I, Koulis T, Paradis G, DiFranza J. Determinants of First Puff and Daily Cigarette Smoking in Adolescents. Am.J.Epidemiol. 2009;170(5):585-597.
(445) Onceva S, Donev D, Gligorov I. Tobacco smoking, alcohol and drug consumption among youngsters in the Republic of Macedonia. Med.Arh. 2001;55(1):27-28.
(446) Ostaszewski K. Pozytywna profilaktyka. Świat Probl. 2006(3(158)):6-10.
(447) Ostaszewski K. Trendy w paleniu papierosów przez 15-letnią młodzież. Badania mokotowskie 1984-2000. Med. Wieku Rozw7. 2003: (1 cz. 2) s.105-120 2003;7(1 cz. 2):105-120.
(448) Ostaszewski K, Kocoń K.
Tatuaż i kolczykowanie ciała, a używanie substancji psychoaktywnych i inne zachowania ryzykowne wśród gimnazjalistów. Alkoh. Narkom. 2007;20(3):247-266.
(449) Otten R, Engels RC, van de Ven MO, Bricker JB. Parental smoking and adolescent smoking stages: the role of parents' current and former smoking, and family structure. J.Behav.Med. 2007 Apr;30(2):143-154.
(450) Paek HJ. Moderating roles of primary social influences in the relationship between adolescent self-reported exposure to antismoking messages and smoking intention. Health Commun. 2008 Nov;23(6):526-537.
(451) Palmgreen P, Donohew L. Effective mass media strategies for drug abuse prevention campaigns. In: Sloboda Z, Bukoski WJ, editors. Handbook of drug abuse prevention New York.: Springer US; 2006.
(452) Pampel FC. Differences in the influence of family background and social activities on smoking of minority and white high school seniors, 1976-2004. J Immigr Minor Health 2008;10(6):507-15.
(453) Pampel FC, Aguilar J. Changes in Youth Smoking, 1976-2002: A Time-Series Analysis. Youth & Society 2008 06;39(4):453-479.
(454) Park J. Adolescent self-concept and health into adulthood. Health Rep. 2003;14 Suppl:41-52.
(455) Parkinson CM, Hammond D, Fong GT, Borland R, Omar M, Sirirassamee B, et al. Smoking Beliefs and Behavior Among Youth in Malaysia and Thailand. Am.J.Health Behav. 2009 Jul;33(4):366-375.
(456) Patten CA. A critical evaluation of nicotine replacement therapy for teenage smokers. Journal of Child and Adolescent Substance Abuse 2000;9(4):51-75.
(457) Patten CA, Ames SC, Ebbert JO, Wolter TD, Hurt RD, Gauvin TR. Tobacco use outcomes of adolescents treated clinically for nicotine dependence. Arch.Pediatr.Adolesc.Med. 2001 Jul;155(7):831-837.
(458) Patten CA, Croghan IT, Meis TM, Decker PA, Pingree S, Colligan RC, et al. Randomized clinical trial of an Internet-based versus brief office intervention for adolescent smoking cessation. Patient Educ.Couns. 2006 Dec;64(1-3):249-258.
(459) Patterson J, Pryor J, Field J. Adolescent attachment to parents and friends is relation to aspects of self-esteem. Journal of Youth and Adolescence 1995;24:365-376.
(460) Patton GC, Carlin JB. Depression, Anxiety, and Smoking Initiation: A Prospective Study Over 3 Years. Am.J.Public Health 1998 10;88(10):1518-1522.

(461) Pearson M, Sweeting H, West P, Young R, Gordon J, Turner K. Adolescent substance use in different social and peer contexts: A social network analysis. Drugs-Education Prevention and Policy 2006;13(6):519-536.
(462) Pederson LL. Change in variables related to smoking to childhood to late adolesccence: an eight-year longitudinal study of a cohort of elementary school students. Can. J. Publ. Health 1986;77 (Suppl):33-39.
(463) Peterson AV,Jr, Leroux BG, Bricker J, Kealey KA, Marek PM, Sarason IG, et al. Nine-year prediction of adolescent smoking by number of smoking parents. Addict.Behav. 2006 May;31(5):788-801.
(464) Peterson,Arthur V.,,Jr, Kealey KA, Mann SL, Marek PM, Ludman EJ, Liu J, et al. Group-randomized trial of a proactive, personalized telephone counseling intervention for adolescent smoking cessation. J.Natl.Cancer Inst. 2009 10/21;101(20):1378-1392.
(465) Piekoszewski W, Florek E. Tytoń w liczbach na początku nowego stulecia. Prz Lek 2006;63(10):823-826.
(466) Pierce J, Gilpin. E., Emery. S., et. al. Has the California tobacco control program reduced smoking? 1998;280(10):893-899.
(467) Pierce JP, Gilpin E. How long will todays new adolescent smoker be addicted to cigarettes? Am. J. Publ. Health 1996;86:253-256.
(468) Pierce JP, Anderson DM, Romano RM, Meissner HI, Odenkirchen JC. Promoting smoking cessation in the United States: effect of public service announcements on the Cancer Information Service telephone line. J.Natl.Cancer Inst. 1992 May 6;84(9):677-683.
(469) Pierce JP, Choi WS, Gilpin EA, Farkas AJ, Merritt RK. Validation of susceptibility as a predictor of which adolescents take up smoking in the United States. Health Psychol. 1996 Sep;15(5):355-361.
(470) Pierce JP, James LE, Messer K, Myers MG, Williams RE, Trinidad DR. Telephone counseling to implement best parenting practices to prevent adolescent problem behaviors. Contemp.Clin.Trials 2008 May;29(3):324-334.
(471) Pikó B. Unalom vagy stresszoldás? Serdülők dohányzással és alkoholfogyasztással kapcsolatos motivációinak vizsgálata. Addiktológia 2004;III(2):191-202.
(472) Pikó B. Egészesség tudatosság serdülőkorban. Budapest: Akadémiái Kiadó; 2002.
(473) Pikó B. Serdülők és fiatalak dohányzással, alkoholfogyasztással és drogfogyasztással kapcsolatos vélekedései: újabb kockák a „kirakós játékhoz". Szenvedélybetegségek 2001;9(3):195-203.
(474) Pikó B. Dohányzás serdülő és ifjúkorban: az attitűdöktől a magatartásig. Szenvedélybetegségek 2000;9(3):195-203.
(475) Pikó B. Perceived social support from parents and peers: which is the stronger predictor of adolescent substance use? Subst. Use & Misuse 2000;35:185-197.
(476) Pikó B. Magatartáskutatás középiskolások körében: kockázatot növelő és egészséget védő tényezők vizsgálata a dohányzás, alkohol- és drogfogyasztás kialakulásában. Pszichológia 1999;19:337-354.
(477) Pikó BF, Fitzpatrick KM. Depressive symptomatology among Hungarian Youth: A risk and protective factors approach. Journal of Ortopsychiatry 2003;73:44-54.
(478) Pikó B, Paulik E, Pető É, Müller A. A dohányzó magatartás társas befolyásoltsága: a mikrokörnyezet szerepe. Addict. Hung 1996;4:191-195.
(479) Piperakis SM, Garagouni-Araiou F, Argyracouli E, Piperakis AS, Iakovidou-Kritsi Z, Triga A. A survey on smoking habits and attitudes among adolescents in Greece. Int.J.Adolesc.Med.Health 2008 Jan-Mar;20(1):63-71.
(480) Pirogowicz I, Hoffmann K, Pirogowicz P, Steciwko A. Postawa młodzieży licealnej wobec nałogu palenia tytoniu. Dlaczego tak? Dlaczego nie? Prz Lek 2005;62(10):1112-1115.
(481) Pirogowicz I, Pomorski M, Jerzowiecka M, Steciwko A. Palenie tytoniu wśród młodzieży gimnazjalnej. Prz Lek 2004;61(10):1161-1163.
(482) Pisarska A. Właściwości środowiska sąsiedzkiego jako czynnik chroniący/ryzyka używania przez młodzież substancji psychoaktywnych. Przegląd badań. Alkohol Narkom 2009;22(1):29-53.

(483) Pletcher JR, Schwarz DF. Current concepts in adolescent smoking. Curr.Opin.Pediatr. 2000 Oct;12(5):444-449.
(484) Polus-Szeniawska E, Supranowicz P. Uczniowie szkół warszawskich a palenie papierosów. Wych. Fiz. i Zdr. 1995;42(5):181-184.
(485) Poortinga W. Do health behaviors mediate the association between social capital and health? Prev.Med. 2006;43(6):488-493.
(486) Porębiak MI. Rola otoczenia społecznego w narażeniu na czynny kontakt adolescentów z tytoniem w teorii systemowej. Probl Hig Epidemiol 2007;88(3):21-33.
(487) Potter BK, Pederson LL, Chan SS, Aubut JA, Koval JJ. Does a relationship exist between body weight, concerns about weight, and smoking among adolescents? An integration of the literature with an emphasis on gender. Nicotine Tob.Res. 2004 Jun;6(3):397-425.
(488) Poulsen LH, Osler M, Roberts C, Due P, Damsgaard MT, Holstein BE. Exposure to teachers smoking and adolescent smoking behaviour: analysis of cross sectional data from Denmark. Tob.Control 2002 Sep;11(3):246-251.
(489) Prochaska JO, DiClemente CC, Norcross JC. In search of how people change. Applicantions to addictive behaviors. American Psychologyst 1992;47(9):1102-1114.
(490) Prokhorov AV, de Moor CA, Hudmon KS, Hu S, Kelder SH, Gritz ER. Predicting initiation of smoking in adolescents: evidence for integrating the stages of change and susceptibility to smoking constructs. Addict.Behav. 2002 Sep-Oct;27(5):697-712.
(491) Przybysz A, Połocka-Molińska M. Świadomość rodziców na temat zagrożeń dla młodego organizmu spowodowanych paleniem tytoniu. Prz Lek 2006;63(10):1083-1085.
(492) Rachiotis G, Muula AS, Rudatsikira E, Siziya S, Kyrlesi A, Gourgoulianis K, et al. Factors associated with adolescent cigarette smoking in Greece: results from a cross sectional study (GYTS Study). BMC Public Health 2008 Sep 15;8:313.
(493) Rachiotis G, Siziya S, Muula AS, Rudatsikira E, Papastergiou P, Hadjichristodoulou C. Determinants of exposure to Environmental Tobacco Smoke (ETS) among non smoking adolescents (aged 11-17 years old) in Greece: results from the 2004-2005 GYTS Study. Int.J.Environ.Res.Public.Health. 2010 Jan;7(1):284-290.
(494) Rasmussen M, Damsgaard MT, Due P, Holstein BE. Boys and girls smoking within the Danish elementary school classes: a group-level analysis. Scand.J.Public Health 2002;30(1):62-69.
(495) Rasmussen M, Damsgaard MT, Holstein BE, Poulsen LH, Due P. School connectedness and daily smoking among boys and girls: the influence of parental smoking norms. Eur.J.Public Health 2005 Dec;15(6):607-612.
(496) Reddy KS, Perry CL, Stigler MH, Arora M. Differences in tobacco use among young people in urban India by sex, socioeconomic status, age, and school grade: assessment of baseline survey data. Lancet 2006 Feb 18;367(9510):589-594.
(497) Resnick MD, Bearman PS, Blum RW, Bauman KE, Haris KM, Jones J, et al. Protecting adolescents for harm. Findings from the National Longitudinal Study on Adolescent Health. JAMA 1997;278(10):823-832.
(498) Rice VH, Weglicki LS, Templin T, Jamil H, Hammad A. Intervention effects on tobacco use in Arab and non-Arab American adolescents. Addict.Behav. 2010 01;35(1):46-48.
(499) Richards R, Poulton R, Reeder AI, Williams S. Childhood and Contemporaneous Correlates of Adolescent Leisure Time Physical Inactivity: A Longitudinal Study. Journal of Adolescent Health 2009;44(3):260-267.
(500) Richmond R. Educating Medical Students about Tobacco: Planning and Implementation. Paris, France: Tobacco Prevention Section. International Union Against Tuberculosis and Lung Disease; 1996.
(501) Richter LM. Studying adolescence. Science 2006;312(5782):1902-1905.
(502) Richter M, Bowles D, Melzer W, Hurrelmann K. Bullying, psychosocial health and risk behaviour in adolescence. Gesundheitswesen 2007 Aug-Sep;69(8-9):475-482.
(503) Richter M, Vereecken CA, Boyce W, Maes L, Gabhainn SN, Currie CE. Parental occupation, family affluence and adolescent health behaviour in 28 countries. International Journal of Public Health 2009;54(4):203-212.

(504) Riley W, Obermayer J, Jean-Mary J. Internet and mobile phone text messaging intervention for college smokers. J.Am.Coll.Health 2008 Sep-Oct;57(2):245-248.
(505) Robinson LA, Vander Weg MV, Riedel BWea. "Start to stop": results of a randomised controlled trial of a smoking cessation programme for teens. Tob. Control 2003;12(suppl 4):iv26-iv33.
(506) Rodgers A, Corbett T, Bramley D, Riddell T, Wills M, Lin RB, et al. Do u smoke after txt? Results of a randomised trial of smoking cessation using mobile phone text messaging. Tob.Control 2005 Aug;14(4):255-261.
(507) Rodham et al. Adolescents perception of risk and challenge: A qualitative study. Journal of Adolescence 2006;29:261-272.
(508) Rogers E. Diffusion of Innovations. Fourth Edition ed. New York: The Free Press; 1995.
(509) Rogol AD. Growth at puberty. Journal of Adolescent Health 2002;31S:192-200.
(510) Rohrbach LA, Howard-Pitney B, Unger JB, et. al. Independent evaluation of the California tobacco control program: relationships between program exposure and outcomes, 1996–1998. Am J Public Health 2002;92(6):975-983.
(511) Roll JM. Assessing the feasibility of using contingency management to modify cigarette smoking by adolescents. J.Appl.Behav.Anal. 2005 Winter;38(4):463-467.
(512) Rooney BL, Choudhary R, Bliss A. Social determinants of smoking among Hmong Americans residing in Wisconsin. WMJ 2009;108(9):439-46.
(513) Rosario M, Schrimshaw EW, Hunter J. Butch/Femme differences in substance use and abuse among young lesbian and bisexual women: examination and potential explanations. Subst.Use Misuse 2008 Jul;43(8-9):1002-1015.
(514) Rosendo I, Fonseca G, Guedes AR, Martins V. A characterisation of smokers and factors influencing motivation to stop smoking. Rev Port Pneumol 2009 2009;15(5):783-802.
(515) Ross H, Chaloupka FJ. The effect of cigarette prices on youth smoking. Health Econ. 2003 Mar;12(3):217-230.
(516) Roxon N. New health taskforce on prevention - tobacco, alcohol and obesity priorities Canberra, ACT: Office of the Minister for Health and Ageing 2008:Media release from the Minister for Health and Ageing 9 April, 2008. .
(517) Rudatsikira E, Muula AS, Siziya S. Current cigarette smoking among in-school American youth: results from the 2004 National Youth Tobacco Survey. Int.J.Equity Health. 2009 Apr 3;8:10.
(518) Saab H, Klinger D. School differences in adolescent health and wellbeing: findings from the Canadian Health Behaviour in School-aged Children Study. Soc.Sci.Med. 2010 Mar;70(6):850-858.
(519) Sabiston C, Lovato CY, Ahmed R, Pullman AW, Hadd V, Campbell HS, et al. School Smoking Policy Characteristics and Individual Perceptions of the School Tobacco Context: Are They Linked to Students'Smoking Status? J Youth Adolescence 2009;38:1374-1387.
(520) Sadowska L, Trzmiel A, Wlazło A, Mysłek M. O środowiskowych uwarunkowaniach i szkodliwości palenia papierosów wśród dzieci i młodzieży szkół wrocławskich. Med Sport 2004;20(1):11-20.
(521) Sanders LM, Shaw JS, Guez G, Baur C, Rudd R. Health Literacy and Child Health Promotion: Implications for Research, Clinical Care, and Public Policy. Pediatrics 2009 11/03;124:S306-S314.
(522) Sargent JD, Hanewinkel R. Comparing the effects of entertainment media and tobacco marketing on youth smoking in Germany. Addiction 2009 05;104(5):815-823.
(523) Sasco AJ, Kleihues P. Why can't we convince the young not to smoke? Eur.J.Cancer 1999 Dec;35(14):1933-1940.
(524) Schepis TS, Rao U. Epidemiology and etiology of adolescent smoking. Curr.Opin.Pediatr. 2005 Oct;17(5):607-612.
(525) Schinke SP, Fang L, Cole KC. Preventing substance use among adolescent girls: 1-year outcomes of a computerized, mother-daughter program. Addict.Behav. 2009;34(12):1060-1064.
(526) Schinke SP, Cole KCA, Fang L. Gender-specific intervention to reduce underage drinking among early adolescent girls: a test of a computer-mediated, mother-daughter program. J Stud Alcohol Drugs 2009;70(1):70-7.
(527) Schneider S, Mohnen SM, Pust S. The average age of smoking onset in Germany--trends and correlates. Int.J.Public.Health. 2008;53(3):160-164.

(528) Schnohr CW, Kreiner S, Rasmussen M, Due P, Currie C, Diderichsen F. The role of national policies intended to regulate adolescent smoking in explaining the prevalence of daily smoking: a study of adolescents from 27 European countries. Addiction 2008 May;103(5):824-831.
(529) Semer N, Ellison J, Mansell C, Hoika L, MacDougall W, Gansky SA, et al. Development and evaluation of a tobacco cessation motivational program for adolescents based on physical attractiveness and oral health. J.Dent.Hyg. 2005 Fall;79(4):9.
(530) Seo DC, Jiang N. Associations between smoking and extreme dieting among adolescents. J.Youth Adolesc. 2009 Nov;38(10):1364-1373.
(531) Shafey O, Eriksen M, Ross H, Mackay J. The Tobacco Atlas. 3rd ed ed. Atlanta: GA: American Cancer Society; 2009.
(532) Shafey O, Dolwick S, Guindon E. Tobacco Control Country Profiles, Second Edition, 2003, the 12-th World Conference on Tobacco or Health. 2003.
(533) Shakib S, Zheng H, Johnson CA, Chen X, Sun P, Palmer PH, et al. Family characteristics and smoking among urban and rural adolescents living in China. Prev.Med. 2005 Jan;40(1):83-91.
(534) Share M, Quinn M, Ryan C. Evaluation of a 5-year school-based county-wide smoking education programme. Ir.Med.J. 2004 Oct;97(9):264, 266-7.
(535) Shields M. Smoking – prevalence, bans and exposure to second-hand smoke. Health Reports 2007;18(3):67-85.
(536) Shields M. An update on smoking from the 2005 Canadian Community Health Survey. 2006; Available at: http://www.statcan.gc.ca/pub/82-621-x/2006002/4053728-eng.htm. Accessed 9.08, 2010.
(537) Siahpush M, English D, Powles J. The contribution of smoking to socioeconomic differentials in mortality: results from the Melbourne collaborative cohort study. Australia. J Epidemiol Community Health 2006;60(12):1077-1079.
(538) Siahpush M, McNeill A, Hammond D, Fong GT. Socioeconomic and country variations in knowledge of health risks of tobacco smoking and toxic constituents of smoke: results from the 2002 International Tobacco Control (ITC) Four Country Survey. Tob.Control 2006 Jun;15 Suppl 3:iii65-70.
(539) Siahpush M, Yong HH, Borland R, Reid JL, Hammond D. Smokers with financial stress are more likely to want to quit but less likely to try or succeed: findings from the International Tobacco Control (ITC) Four Country Survey. Addiction 2009 Aug;104(8):1382-1390.
(540) Sichletidis L, Tsiotsios I, Chloros D, Gavriilidis A, Kottakis I. The prevalence of smoking in high-school students in Northern Greece. Pneumon 2005;18(1):93-98.
(541) Sichletidis LT, Chloros D, Tsiotsios I, Kottakis I, Kaiafa O, Kaouri S, et al. High prevalence of smoking in Northern Greece. Prim.Care.Respir.J. 2006 Apr;15(2):92-97.
(542) Sichletidis LT, Chloros DA, Tsiotsios AI, Spyratos DG. Prevalence and risk factors for initiation of smoking in Greek high-school students. Int.J.Environ.Res.Public.Health. 2009 Mar;6(3):971-979.
(543) Sierosławski J. Postawy wobec substancji psychoaktywnych. Wyniki ogólnopolskich badań ankietowych wśród młodzieży szkolnej - ESPAD 2003. Serwis Informacyjny. Narkom. 2004;27(4):2-20.
(544) Simantov E, Schoen C, Klein JD. Health-compromising behaviors: why do adolescents smoke or drink?: identifying underlying risk and protective factors. Arch.Pediatr.Adolesc.Med. 2000 Oct;154(10):1025-1033.
(545) Simons-Morton BG. The protective effect of parental expectations against early adolescent smoking initiation. Health Educ.Res. 2004 Oct;19(5):561-569.
(546) Skoczylas P, Wilary B, Stelmach W.
Rola rodziny w kształtowaniu zachowań prozdrowotnych wśród dzieci i młodzieży. Med. Og. 2008;43(14):18-25.
(547) Skultéti S. Társas hatások szerepe fiatalok egészségkockázati magatartásában. In: Pikó B, editor. Ifjúság, káros szenvedélyek és egészség a modern társadalomban Budapest: L'Harmattan Kiadó; 2005. p. 104-121.
(548) Slaby B. Tobacco Control in the Slovak Republic. Comprehensive report on tobacco control situation in the Slovak Republic. 2003 21 July 2003.

(549) Slomkowski C, Rende R, Novak S, Lloyd-Richardson E, Niaura R. Sibling effects on smoking in adolescence: evidence for social influence from a genetically informative design. Addiction 2005 Apr;100(4):430-438.
(550) Smith AE, Cavallo DA, McFetridge A, Liss T, Krishnan-Sarin S. Preliminary examination of tobacco withdrawal in adolescent smokers during smoking cessation treatment. Nicotine Tob.Res. 2008 Jul;10(7):1253-1259.
(551) Smith BN, Bean MK, Mitchell KS, Speizer IS, Fries EA. Psychosocial factors associated with non-smoking adolescents' intentions to smoke. Health Educ.Res. 2007 Apr;22(2):238-247.
(552) Sovinova H, Csemy L, Warren CW, Lee J, Lea V. Changes in tobacco use among 13-15-year-olds in the Czech Republic--2002 and 2007. Cent.Eur.J.Public Health 2008 Dec;16(4):199-204.
(553) Spoth RL, Randall GK, Trudeau L, Shin C, Redmond C. Substance use outcomes 5 1/2 years past baseline for partnership-based, family-school preventive interventions. Drug Alcohol Depend. 2008;96(1-2):57-68.
(554) Stafford M, Duke-Williams O, Shelton N. Small area inequalities in health: Are we underestimating them? Soc.Sci.Med. 2008;67(6):891-899.
(555) Stanton WR, Gillespie AM, Lowe JB. Reviewing the needs of unemployed youth in smoking intervention programs. Drug Alcohol Rev 1995;14:101-108.
(556) Stanton WR, Lowe JB, Gillespie AM. Adolescents' experiences of smoking cessation. Drug and Alcohol Dependence 1996;43:63-70.
(557) Stanton WR, Oei TPS, Silva PA. Sociodemographic characteristics of adolescents smokers. Int. J. Addict 1994;24:913-925.
(558) Stanton CA, Papandonatos G, Lloyd-Richardson EE, Niaura R. Consistency of self-reported smoking over a 6-year interval from adolescence to young adulthood. Addiction 2007 Nov;102(11):1831-1839.
(559) Stead LF, Perera R, Lancaster T. Telephone counselling for smoking cessation. Cochrane Database Syst.Rev. 2006 Jul 19;3:CD002850.
(560) Stickley A, Carlson P. The social and economic determinants of smoking in Moscow, Russia. Scand.J.Public Health 2009;37(6):632-639.
(561) Stigler MH, Perry CL, Arora M, Reddy KS. Why are urban Indian 6th graders using more tobacco than 8th graders? Findings from Project MYTRI. Tob.Control 2006 Jun;15 Suppl 1:i54-60.
(562) Stoddard AM, Fagan P, Sorensen G, Hunt MK, Frazier L, Girod K. Reducing cigarette smoking among working adolescents: results from the SMART study. Cancer Causes Control 2005 Dec;16(10):1159-1164.
(563) Stojiljkovic D, Haralanova M, Nikogosian H, Petrea I, Chauvin J, Warren CW, et al. Prevalence of tobacco use among students aged 13-15 years in the South-Eastern Europe health network. Am.J.Health Behav. 2008 Jul-Aug;32(4):438-445.
(564) Stoker A, Swadi H. Perceived family relationships in drug abusing adolescents. Drug Alcohol Depend. 1990;25:293-297.
(565) Strecher VJ. Computer-tailored smoking cessation materials: a review and discussion. Patient Educ.Couns. 1999 Feb;36(2):107-117.
(566) Strong CSE. The influence of family and friends on teenage smoking in Greece: some preliminary findings. Marketing Intelligence and Planning 2006;24(2):119-126.
(567) Supranowicz P. Psychosocial Conditions of Cigarette Smoking Among Youth. Rocz. Państ. Zakł. Hig. 1998;49:507-513.
(568) Sussman S, Dent CW, Lichtman KL. Project EX: outcomes of a teen smoking cessation program. Addict.Behav. 2001 May-Jun;26(3):425-438.
(569) Sussman S, Dent CW, Stacy AW. Project towards no drug abuse: a review of the findings and future directions. Am.J.Health Behav. 2002 Sep-Oct;26(5):354-365.
(570) Sussman S, Lichtman K, Ritt A, Pallonen UE. Effects of thirty-four adolescent tobacco use cessation and prevention trials on regular users of tobacco products. Subst.Use Misuse 1999 09;34(11):1469-1503.

(571) Sussman S, McCuller WJ, Zheng H, Pfingston YM, Miyano J, Dent CW. Project EX: A Program of Empirical Research on Adolescent Tobacco Use Cessation. Tob Induc Dis. 2004 Sep 15;2(3):119-132.
(572) Svensson R. Gender differences in adolescent drug use: The impact of parental monitoring and peer deviance. Youth and Society 2003;34:300-329.
(573) Świderska-Kopacz J, Marcinkowski JT.
Zachowania zdrowotne młodzieży gimnazjalnej i ich wybrane uwarunkowania. Cz. 1 Palenie tytoniu. Probl. Hig. Epidemiol. 2007, 88(4): 441-445 2007;88(4):441-445.
(574) Szczerbiński R, Karczewski J, Szpak A, Karczewska Z. Zachowania zdrowotne młodzieży szkół ponadgimnazjalnych w powiecie sokólskim. Rocz Państw Zakł Hig 2007;58(3):525-532.
(575) Szpakow A, Paszala D.
Cechy stylu życia młodzieży w wieku 15-17 lat (przykład uczniów szkół litewskich i białoruskich. Medycyna Środowiskowa 2006;9(2).
(576) Tabak I, Małkowska A, Jodkowska M, Oblacińska A. Środowiskowe uwarunkowania palenia tytoniu wśród młodzieży szkół ponadgimnazjalnych w Polsce w 2005 roku. Wyniki wstępne. Prz Lek 2005;62(10):1102-1107.
(577) Taioli E, Wyndetr EL. Effect of the age at which smoking begins on frequency of smoking in adulthood. N Engl.J Med 1991;325:968-9] 1991;325:968-969.
(578) Tanski SE, Prokhorov AV, Klein JD. Youth and tobacco. Minerva Pediatr. 2004 Dec;56(6):553-565.
(579) ter Doest L, Dijkstra A, Gebhardt WA, Vitale S. Cognitions About Smoking and Not Smoking in Adolescence. Health Education & Behavior 2009;36(4):660-672.
(580) Theodorakis YKE, Hassandra M, Goudas M. Review of the applications of a health education program "I do not smoke I exercise" to elementary,junior high school and high school students. Inquiries in Sport and Physical Education 2008;6(2):181-194.
(581) Thomas DP, Briggs V, Anderson IPS, Cunningham J. The social determinants of being an Indigenous non-smoker. Aust.N.Z.J.Public Health 2008;32(2):110-116.
(582) Thomas S, Fayter D, Misso K, Ogilvie D, Petticrew M, Sowden A, et al. Population tobacco control interventions and their effects on social inequalities in smoking: systematic review. Tob.Control 2008 Aug;17(4):230-237.
(583) Thyrian JR, Tagmat J, Wolff UJ.
Szkolny program zapobiegania palenia tytoniu wśród młodzieży wykorzystujący Internet: do kogo docieramy i co o tym sądzą odbiorcy? Fam. Med. Prim. Car. Rev. 2008;10:37-44.
(584) Tian BC, Meng XP, Lv SH, Qian L, Zhang W, Zhang JB, et al. Study on the relationship between smoking behavior and other unhealthy behaviors among middle school students in 4 cities of China. Zhonghua Liu Xing Bing Xue Za Zhi 2007 Mar;28(3):229-232.
(585) Tilleczek KC, Hine DW. The meaning of smoking as health and social risk in adolescence. 29, 273-287. Journal of Adolescence 2006;29:273-287.
(586) Timberlake DS, Rhee SH, Haberstick BC, Hopfer C, Ehringer M, Lessem JM, et al. The moderating effects of religiosity on the genetic and environmental determinants of smoking initiation. Nicotine Tobacco Res. 2006;8(1):123-133.
(587) Tonnesen P, Tonstad S, Hjalmarson A, Lebargy F, Van Spiegel PI, Hider A, et al. A multicentre, randomized, double-blind, placebo-controlled, 1-year study of bupropion SR for smoking cessation. J.Intern.Med. 2003 Aug;254(2):184-192.
(588) Traylor AC, Bordnick PS, Carter BL. Using Virtual Reality to Assess Young Adult Smokers' Attention to Cues. CyberPsychology & Behavior 2009 08;12(4):373-378.
(589) Trofor A, Mihaltan F, Mihaicuta S, Lotrean L. Smoking cessation and prevention for young people--Romanian expertise. Pneumologia 2009 Jan-Mar;58(1):72-78.
(590) Turner K, West P, Gordon J, Young R, Sweeting H. Could the peer group explain school differences in pupil smoking rates? An exploratory study. Soc.Sci.Med. 2006 May;62(10):2513-2525.
(591) Turner L, Mermelstein R, Flay B. Individual and contextual influences on adolescent smoking. Ann.N.Y.Acad.Sci. 2004 Jun;1021:175-197.

(592) Turner LR, Mermelstein R, Berbaum ML, Veldhuis CB. School-based smoking cessation programs for adolescents: what predicts attendance? Nicotine Tob.Res. 2004 Jun;6(3):559-568.
(593) Tyas SL, Pederson LL. Psychosocial factors related to adolescent smoking: a critical review of the literature. Tob.Control 1998 Winter;7(4):409-420.
(594) Unger et al. Cultural values and substance use in a multiethnic sample of California adolescents. Add. Res. & Theory 2002;10:257-279.
(595) Unger JB, Palmer PH, Dent CW, Rohrbach LA, Johnson CA. Ethnic differences in adolescent smoking prevalence in California: are multi-ethnic youth at higher risk? Tob.Control 2000;9 Suppl 2:II9-14.
(596) Unger JB, Ritt-Olson A, Wagner KD, Soto DW, Baezconde-Garbanati L. Parent-Child Acculturation Patterns and Substance Use among Hispanic Adolescents: A Longitudinal Analysis. Journal of Primary Prevention 2009;30(3-4):293-313.
(597) Upadhyaya HP, Brady KT, Wang W. Bupropion SR in adolescents with comorbid ADHD and nicotine dependence: a pilot study. J.Am.Acad.Child Adolesc.Psychiatry 2004 Feb;43(2):199-205.
(598) Upadhyaya HP, Deas D, Brady KT, Kruesi M. Cigarette smoking and psychiatric comorbidity in children and adolescents. J.Am.Acad.Child Adolesc.Psychiatry 2002 Nov;41(11):1294-1305.
(599) Urbán R, Márián B. A dohányzás szocioökonómiai prediktoróinak és a stressz hatásának vizsgálata magyar reprezentatív mintán. Addiktológia 2003;2(2):164-177.
(600) Prevalence of smoking and perceived risks in un undergraduate student population from Timis county. Romania; 2009.
(601) Impact of pictorial warnings on smoking habit in young students in Romania. Smoking habits and prevention in young people Romania; 2009.
(602) Van De Ven MO, Greenwood PA, Engels RC, Olsson CA, Patton GC. Patterns of adolescent smoking and later nicotine dependence in young adults: a 10-year prospective study. Public Health 2010 Feb;124(2):65-70.
(603) van der Wilk EA, Jansen J. Lifestyle-related risks: are trends in Europe converging? Public Health 2005 Jan;119(1):55-66.
(604) van Osch L, Lechner L, Reubsaet A, Steenstra M, Wigger S, de Vries H. Optimizing the efficacy of smoking cessation contests: an exploration of determinants of successful quitting. Health Educ.Res. 2009;24(1):54-63.
(605) van Zundert RMP, Engels RCME. Parental Factors in Association with Adolescent Smoking Relapse. Eur.Addict.Res. 2009 10;15(4):209-215.
(606) Van Zundert RMP, Nijhof LM, Engels RCME. Testing Social Cognitive Theory as a theoretical framework to predict smoking relapse among daily smoking adolescents. Addict.Behav. 2009;34(3):281-286.
(607) Vardavas CI, Athanasopoulos D, Balomenaki E, Niaounaki D, Linardakis MK, Kafatos AG. Smoking habits of Greek preschool children's parents. BMC Public Health 2007 Jun 14;7:112.
(608) Vardavas CI, Kafatos AG. Smoking policy and prevalence in Greece: an overview. Eur.J.Public Health 2007 Apr;17(2):211-213.
(609) Vassara M. The European Drug Addiction Prevention trial [«ΞΕΡΩ ΤΙ ΖΗΤΑΩ» Η πρόληψη της χρήσης καπνού, αλκοόλ και άλλων εξαρτησιογόνων ουσιών στους μαθητές γυμνασίου]." (PYXIDA- Drug Abuse Prevention and Health Promotion Centre). Available at: http://www.pyxida.org.gr/pyxida_en.asp.
(610) Victoir A, Eertmans A, Van den Bergh O, Van den Broucke S. Association of substance-use behaviours and their social-cognitive determinants in secondary school students. Health Educ.Res. 2007;22(1):81-94.
(611) Victoir A, Eertmans A, Van den Broucke S, Van den Bergh O. Smoking status moderates the contribution of social-cognitive and environmental determinants to adolescents' smoking intentions. Health Educ.Res. 2006;21(5):674-687.
(612) Volk HE, Scherrer JF, Bucholz KK, Todorov A, Heath AC, Jacob T, et al. Evidence for specificity of transmission of alcohol and nicotine dependence in an offspring of twins design. Drug Alcohol Depend. 2007 Mar 16;87(2-3):225-232.

(613) Wakefield MA, Durkin S, Spittal MJ, et al. Impact of tobacco control policies and mass media campaigns on monthly adult smoking prevalence. Am J Public Health 2008;98:1443-1450.
(614) Wakefield J. The search for extreme life. Sci.Am. 2000 Jul;283(1):30-32.
(615) Wakefield M. Smoke-free families: supplement overview. Tob.Control 2000;9 Suppl 3:III1-II2.
(616) Wakefield M, Banham D, Martin J, Ruffin R, McCaul K, Badcock N. Restrictions on smoking at home and urinary cotinine levels among children with asthma. Am.J.Prev.Med. 2000 Oct;19(3):188-192.
(617) Wakefield MA, Chaloupka FJ, Kaufman NJ, Orleans CT, Barker DC, Ruel EE. Effect of restrictions on smoking at home, at school, and in public places on teenage smoking: cross sectional study. BMJ 2000 Aug 5;321(7257):333-337.
(618) Walsh RA. Encouraging Stopping Smoking. Behavioural Science Learning Modules. 2001.
(619) Walsh RA, Tzelepis F. Adolescents and tobacco use: systematic review of qualitative research methodologies and partial synthesis of findings. Subst.Use Misuse 2007;42(8):1269-1321.
(620) Wang Y, Browne DC, Petras H, Stuart EA, Wagner FA, Lambert SF, et al. Depressed mood and the effect of two universal first grade preventive interventions on survival to the first tobacco cigarette smoked among urban youth. Drug Alcohol Depend. 2009 Mar 1;100(3):194-203.
(621) Warren CW. The Global Youth Tobacco Survey (GYTS): linking data to the implementation of the WHO Framework Convention on Tobacco Control. BMC Public Health 2008 Dec 15;8 Suppl 1:S1.
(622) Warren CW, Jones NR, Peruga A, Chauvin J, Baptiste JP, Costa de Silva V, et al. Global youth tobacco surveillance, 2000-2007. MMWR Surveill.Summ. 2008 Jan 25;57(1):1-28.
(623) Warren CW, Riley L, Asma S, Eriksen MP, Green L, Blanton C, et al. Tobacco use by youth: a surveillance report from the Global Youth Tobacco Survey project. Bull.World Health Organ. 2000;78(7):868-876.
(624) Wellman RJ, Sugarman DB, DiFranza JR, Winickoff JP. The extent to which tobacco marketing and tobacco use in films contribute to children's use of tobacco: a meta-analysis. Arch.Pediatr.Adolesc.Med. 2006 Dec;160(12):1285-1296.
(625) West P, Sweeting H, Leyland A. School effects of pupils' health behaviours; evidence in support of the health promoting school. Research Papers in Education 2004;19(3):261-291.
(626) White MV, Hayman J, Hill D. Can population-based tobacco-control policies change smoking behaviors of adolescents from all socio-economic groups? Findings from Australia: 1987-2007. Cancer Causes Control 2008;19:631-640.
(627) White V, Hill D, Siahpush M, et al. How has the prevalence of cigarette smoking changed among Australian adults? Trends in smoking prevalence between 1980 and 2001. Tob Control 2003;12:67-74.
(628) Wiehe SE, Garrison MM, Christakis DA, Ebel BE, Rivara FP. A systematic review of school-based smoking prevention trials with long-term follow-up. J.Adolesc.Health 2005 Mar;36(3):162-169.
(629) Wills TA, Cleary SD. Stress-coping model for alcohol-tobacco interactions in adolescence. In: Fertig JB, Allen JP, editors. Alcohol and tobacco: From basic science to clinical practice Bethesda, MD: National Institute on Alcohol Abuse and Alcoholism; 1995. p. 107-128.
(630) Wills TA, Vaccaro D, McNamara G. Novelty seeking, risk taking, and related constructs as predictors of adolescent substance use: an application of Cloninger's theory. J. Sub. Abuse 1994;6(1):1-20.
(631) Wipfli H, Samet JM. Global economic and health benefits of tobacco control: part 2. Clin.Pharmacol.Ther. 2009 Sep;86(3):272-280.
(632) Wittchen HU, Behrendt S, Hofler M, Perkonigg A, Lieb R, Buhringer G, et al. What are the high risk periods for incident substance use and transitions to abuse and dependence? Implications for early intervention and prevention. Int.J.Methods Psychiatr.Res. 2008 Jun;17 Suppl 1:S16-29.
(633) Wojciechowska A, Kwiatkowska J, Woynarowska B, Burzyńska I. Rozpowszechnienie palenia tytoniu wśród uczniów w wieku 11-15 lat w 1990 i 1994 roku. Zdr Publ 1998;108(11):433-435.
(634) Wójcik A, Brzeski Z, Pająk A, Krakowska A, Borzęcki A. Uzależnienia występujące wśród młodzieży z różnych środowisk. Prz Lek 2004;61(supl 3):25-27.

(635) Wolska A, Łatak D. Palenie tytoniu wśród młodzieży gimnazjalnej, licealnej i ponadlicealnej a wiedza dotycząca zagrożeń zdrowotnych. Prz Lek 2005;62(10):1108-1111.
(636) Wood LJ, Rosenberg M, Clarkson J, Phillips F, Donovan RJ, Shilton T. Encouraging young Western Australians to be smarter than smoking. Am.J.Health Promot. 2009 Jul-Aug;23(6):403-411.
(637) Woynarowska B. Międzynarodowe badania nad zachowaniami zdrowotnymi młodzieży. Zdr. Publ. 2002;112(3):391-395.
(638) Woynarowska B, Mazur J. Używanie substancji psychoaktywnych i inne zachowania ryzykowne u młodzieży w wieku 11-15 lat w Polsce w 2002 roku. Alkoh. Narkom. 2003;16(3/4):155-171.
(639) Woynarowska B, Mazur J. Intencje palenia tytoniu w niedalekiej przyszłości u młodzieży 15-letniej i ich niektóre uwarunkowania. Alkoh. Narkom 2002(1).
(640) Woynarowska B, Kowalewska A. Działania w zakresie ograniczenia palenia tytoniu w szkołach ponadpodstawowych. Cz. II. Opinie uczniów klas I. Zdr Publ 1999;109(12):421-424.
(641) Woynarowska B, Mazur J. Zachowania zdrowotne młodzieży szkolnej w Polsce: wyniki badań HBSC 2002. Zdr Publ 2004;114(2):159-167.
(642) Yong HH, Foong K, Borland R, Omar M, Hamann S, Sirirassamee B, et al. Support for and reported compliance among smokers with smoke-free policies in air-conditioned hospitality venues in Malaysia and Thailand: findings from the International Tobacco Control Southeast Asia Survey. Asia.Pac.J.Public.Health. 2010 Jan;22(1):98-109.
(643) Yong HH, Hamann SL, Borland R, Fong GT, Omar M, ITC-SEA project team. Adult smokers' perception of the role of religion and religious leadership on smoking and association with quitting: a comparison between Thai Buddhists and Malaysian Muslims. Soc.Sci.Med. 2009 Oct;69(7):1025-1031.
(644) Young D, Borland R, Hammond D, Cummings KM, Devlin E, Yong HH, et al. Prevalence and attributes of roll-your-own smokers in the International Tobacco Control (ITC) Four Country Survey. Tob.Control 2006 Jun;15 Suppl 3:iii76-82.
(645) Young D, Borland R, Siahpush M, Hastings G, Fong GT, Cummings KM, et al. Australian smokers support stronger regulatory controls on tobacco: findings from the ITC Four-Country Survey. Aust.N.Z.J.Public Health 2007 Apr;31(2):164-169.
(646) Załęcki M. Młodzież a środki uzależniające. Polit. Społ. 1995(7).
(647) Zalewska M. Ocena stylu życia oraz sprawności psychofizycznej uczniów szkoły ponadgimnazjalnej. Wych. Fiz. i Zdr. 2006;53(8/9):7-16.
(648) Zambon A, Lemma P, Borraccino A, Dalmasso P, Cavallo F. Socio-economic position and adolescents' health in Italy: the role of the quality of social relations. Eur.J.Public Health 2006;16(6):627-632.
(649) Zaza S, Briss PA, Harris KW, (eds.). Tobacco. In: The guide to community preventive services: what works to promote health? 2005.
(650) Zhu SH, Stretch V, Balabanis M, Rosbrook B, Sadler G, Pierce JP. Telephone counseling for smoking cessation: effects of single-session and multiple-session interventions. J.Consult.Clin.Psychol. 1996 Feb;64(1):202-211.
(651) Żuralska R, Dziedziczko A.
Palacze tytoniu wśród młodzieży szkolnej. Zdr. Publ. 2005;115(4):502-504.
(652) Баев С. Здравно състояние на населението. Статистика 1997;6(3):3-19.
(653) Василевски Н. Препоръки за утвърждаване на добра професионална практика. ; 1996.
(654) Василевски Н, Тулевски Б, Котаров Г. Ръководство за предотвратяване и ограничаване на тютюнопушенето. : Министерство на здравеопазването. Национален център по обществено здраве. С. 2004 г.; 2004.
(655) Иванов Л, Глутникова З, Калинов К. Адекватност и качество на първичната здравна помощ. Социологическо проучване. В Бюлетин № 2, декември 1996: Министерство на здравеопазването. Национален център по обществено здравеопазване.; 1996.
(656) Йорданов Й. Ние сме при вас-загасете цигарите. : МА, ИЗП; 1990.

(657) Котаров Г. Контрол на тютюнопушенето. Законови разпоредби. Мястото на България сред страните от Централна и Източна Европаи Европейския съюз. Форум Медикус 2003 21-22, май 2003 г;6.
(658) Крофтън Д, Симпсън Д. Тютюнопушенето: глобалната заплаха. София: Министерство на здравеопазването, Национален център по обществено здраве.
(659) Манев И. Контрол върху акцизните стоки. Изграждане на капацитет за подобряване на междуведомственото сътрудничество за ограничаване на тютюнопушенето. Презентация пред Националния семинар Велинград: Агенция “Митници” – МФ. Дирекция “Митническо разузнаване и разследване"; 2007.
(660) Мерджанов Ч. Можем ли да живеем по-дълго? : Българска книжница; 2007.
(661) Мерджанов Ч. Едно компрометиращо първенство”.УИ "". Св.Климент Охридски 1995;С.
(662) Мерджанов Ч, Коларова Д. Социално-значимите заболявания и тютюнопушенето. Медицина и физкултура 1988;С.