

SMOKING PREVALENCE IN ROMANIA. A SECONDARY DATA ANALYSIS

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Abstract: *This article presents the results of a secondary data analysis regarding the smoking prevalence in Romania. The main objective was to analyse the evolution of the most relevant indicators that measure the smoking prevalence in Romania and to compare them with data from other European Union countries. The main results demonstrate that Romania is very close to the European average in terms of the basic indicators of tobacco consumption. The Romanians have a higher tendency for smoking cessation in relation to the European average but the smoking cessation has the same type of motivation as in the most European countries.*

Key words: *smoking prevalence, secondary analysis, Eurobarometer, anti-smoking policy.*

1. Introduction

Smoking is nowadays considered the biggest avoidable public health threat in the European Union [1]. Smoking represents a *threat* because it is associated with increased health risks. Many cancers, cardiovascular and respiratory diseases are linked to tobacco use.

In Europe smoking causes more problems than alcoholism, drugs, high blood pressure or excess weight [11]. There are a lot of recent studies showing that youth smoking is associated with a high risk of cancer and with high mortality [1,3,5]. Wiencke and Kelsey (2002) sustain that “early smoking onset induces genetic alterations in developing lung and breast tissue that make an early smoker more susceptible to these cancers” [5, p. 1309]. For people who begin to smoke as adolescents or young adults and continue to smoke during their life, the likelihood of

premature death is virtually ensured. “Two-pack-a-day cigarette smokers can expect to die seven or eight years earlier than their non-smoking counterparts” [7, p. 273].

It is estimated that every year in the EU, as many as 650 000 Europeans die prematurely of tobacco-related causes (more than the populations of Malta or Luxembourg). According to recent estimations, one of five men and one of twenty women over 30 years die nowadays because of the smoking [3]. In terms of negative economic impact, smoking costs the European Union countries at least €100 billion [11].

In the contemporary public health policies, however, smoking is seen as an *avoidable* threat because it can be reduced through effective public policy measures. Legislative measures, funding of tobacco control projects and information campaigns are the main activities of the European Union in this field.

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The anti-smoking policy of the European Union is in accordance with the Framework Convention on Tobacco Control elaborated by the World Health Organization and it generates the frame of the national anti-smoking policies in all the European Union member states [12].

According to the law, in Romania smoking is not permitted in public institutions, enclosed workplaces or public transportation, with the exception of special rooms designated for smoking [13]. Romania is among the first European countries that have implemented measures to reduce smoking by restricting cigarette advertising and printing of warning messages or images on the cigarette packets.

Regarding the tendencies of the smoking phenomenon in Europe, in a recent study [4] the authors show that in the past few decades the overall prevalence of smoking in higher-income countries decline considerably. However, the decline is not occurring uniformly across social strata. In the United Kingdom and Italy, for example, smoking prevalence shows an inverse relationship with social class [3, 4]. In general, the smokers from lower social strata appear less likely to attempt to stop, or succeed in stopping smoking. A possible explanation for this is the reduced access to expensive cessation resources, such as nicotine replacement therapies [4].

Starting from such scientific premises and data I was interested to discover which are the main dimensions of the smoking phenomenon in Romania nowadays compared with the other European countries.

2. Measuring the prevalence of smoking in the European Union. The Eurobarometers

The scientific approach of smoking phenomenon focuses on two main research

directions: 1) the assessment of medical and social risks of tobacco consumption and 2) identification of tobacco consumption patterns in order to develop the best intervention strategies [1].

In the European research on smoking, the Eurobarometers represent a tool for measuring periodic behaviour and attitudes related to smoking in the European Union countries. They have been ordered by the European Commission since 2002 and are carried out every year or two years. Even if they are not identical in terms of data collection methodology, the Eurobarometers are a good example of a longitudinal study using similar indicators to measure the consumption of tobacco in Europe.

The main dimensions of the smoking phenomenon analysis in the Eurobarometers are the following:

- The level and frequency of tobacco consumption.
- Behaviour and attitudes towards giving up smoking.
- The level of exposure to tobacco smoke at home, at work and in public places (including second-hand smoke).
- Awareness of harm caused by tobacco smoke.
- Attitudes towards smoke-free policies.

In order to have a brief but relevant image of the evolution of the smoking phenomenon in Europe, in this article I have chosen to compare only data from the first Eurobarometer (2003) and last one (2010). Regarding the consumption of tobacco in Europe, Eurobarometers use three social categories: smokers, ex-smokers and non-smokers. In 2003, the percentage of smokers in the EU was 39.4% compared to 29% in 2010. The percentage of ex-smokers increased from 18.5% in 2003 to 22% in 2010, as well as the percentage of non-smokers (those who never smoked) from 41.6% in 2003 to 49% in 2010. The data indicate, therefore, fewer smokers by 10% within seven years.

Regarding the association of smoking status with various socio-demographic characteristics, Eurobarometer 2003 shows that men smoke more than women (44.8% to 34.3%), younger people smoke more than older people and those with less education smoke more than those with more education.

Eurobarometer 2010 maintains these associations, but outlines a profile of the smoker: smokers are more likely to be male than female, under 54 years and from lower social groups. In terms of occupation, smokers are more likely to be unemployed, manual workers or self-employed.

An important indicator of tobacco consumption is the average number of cigarettes smoked per day. In 2003, the European average was 16.35 cigarettes/day and in 2010 the value of this indicator fell to 14.4 cigarettes/day.

Regarding the smoking cessation, on average almost three out of ten smokers across the EU countries have tried to quit smoking at least once in the last 12 months. Almost half of those who have tried to give up smoking have tried to do so on more than one occasion. Those who try to give up are female rather than male and younger (under 39 years) rather than older smokers.

Among non-smokers, about one in four allow smoking in their homes and consequently they have the potential to become passive smokers.

Regarding smoking in the workplace, Eurobarometer 2010 shows that a quarter of EU citizens are exposed to cigarette smoke at work.

Compared to the Eurobarometer 2003, the Eurobarometer 2010 contains a larger number of data on attitudes towards anti-smoking policies. This is explained by the increasing importance of anti-smoking policies in European Union countries over the last decade.

In 2003, Europeans seemed rather skeptical about the effectiveness of these policies because 67.6% of the respondents declared they did not believe that health warnings placed on cigarette packages will cause people to smoke less or to stop smoking. But in 2010 most citizens were in favour of the various tobacco-control policies. The policy that received the most positive response is that of putting picture health warnings on all packages of tobacco products. Three quarters of all EU citizens were in favour of this policy.

From the methodological point of view, there is a limit of the Eurobarometers: they are not identical, meaning that, from a field research to another, they have not measured exactly the same aspects of the smoking phenomenon. Thus making secondary data analysis becomes difficult because data are not always comparable. The things become more complicated when we analyse, along with Eurobarometers, various researches conducted at national level, each with its own objectives and methodology. From this point of view, analysts report the need to unify the European research methodology.

Measuring the prevalence of smoking accurately, by age, gender and socioeconomic status, using standardized methods to enable comparison between countries is a fundamental prerequisite for implementing and assessing public health policy that aim to reduce smoking [2].

3. Smoking in Romania according to the Eurobarometers

The Eurobarometers have been recording data about Romania since 2006 (data collected in November-December 2005). At that time Romania had the status of “acceding country” to the European Union.

In order to carry out a secondary analysis [6] I have chosen to compare data from

two Eurobarometers: the first Eurobarometer that collected data about Romania (2006) and last one (2010). I have chosen to compare seven relevant indicators in order to illustrate the prevalence of smoking in the European Union and Romania. For each indicator I extracted data on the European Union as a whole, data for Romania and, where it was appropriate, data on the European Union states which had the highest or the lowest scores for that indicator.

The seven analysed indicators are the following:

- The proportion of smokers.
- The proportion of ex-smokers.
- The average number of cigarettes smoked per day.
- The frequency of quit attempts.
- The smoking cessation motivation.
- The places where people smoke.
- The perception about anti-smoking campaigns/policies.

As the Eurobarometers are not identical, in the situations where the indicators had different formulations I have conducted a series of operations that would provide comparable data (for example, the sum of percentages or identifying equivalent questions with respect to a given indicator).

3.1. The proportion of smokers

In 2006, 27% of the European Union citizens declared themselves as cigarette smokers and 6% declared they smoke other tobacco products: pipe, cigars and roll up cigarettes. In Romania, the percentage was 31% (smoking cigarettes). The highest percentage of smokers was recorded in Greece (40%) and the lowest in Sweden (18%). In 2010, the percentage of smokers declared at EU level was 29% and 30% in Romania. As in 2006, the country with the highest percentage of smokers was Greece (42%), and the country with the lowest

percentage of smokers was Sweden (16%). We can notice that Romania easily exceeds the European average in the percentage of smokers and the Romanian smokers share declined slightly from 2006 to 2010, with only one percent.

3.2. The proportion of ex-smokers

In 2006, the percentage of the EU citizens who declared themselves former smokers (ex-smokers) was 21%. In the same year Romania had a percent of 11% ex-smokers. The extreme scores were in the Netherlands (30% ex-smokers) and Turkey (6%). In 2010, the data indicated as ex-smokers: 22% at the EU level, 12% in Romania, 33% in the Netherlands (maximum score) and 10% in Turkey (minimum score).

In relation to the EU average, Romania had a significantly lower percentage of former smokers in both years but the evolution is similar to that in Europe: slight increase (with only 1%) of the part of people who declared themselves to be ex-smokers.

3.3. The average number of cigarettes smoked per day

In 2006, the European Union smokers consumed on average 14.9 cigarettes per day. In Romania, the average was 14 cigarettes/day, in Greece 23.2 cigarettes/day (the most), and in Slovakia 12.2 cigarettes/day (the least). In 2010, the consumption of cigarettes per day had decreased very little in the EU, to 14.4 cigarettes/day and in Romania increased to 15 cigarettes/day. In Greece, the country with the highest daily consumption of cigarettes, their number decreased slightly (21 cigarettes/day). In 2010, the Swedes were smoking fewer cigarettes per day (10.1). The consumption of cigarettes per day in Romania has similar values as the

European level consumption but it should be noted that during 2006-2010, although the number of smokers decreased slightly in Romania, the number of cigarettes smoked per day has increased, against the European trend.

3.4. The frequency of quit attempts

In 2006, 31% of the smokers in the EU said they had tried to quit smoking at least once during their life. In Romania, the percentage was very close: 32%. In 2010, the Eurobarometer subjects were asked if they have tried to quit smoking at least once in the last 12 months. In the EU, 28% of smokers have done so, and in Romania 38% of smokers tried to quit at least once during the last year.

Although the data for this indicator are not fully comparable because of the different measurement in 2010 compared to 2006, they suggest that Romanian smokers have a higher tendency for smoking cessation in relation to the European average.

3.5. The smoking cessation motivation

This indicator has been used only in the Eurobarometer 2010, but I consider it is important for any secondary analysis because it provides essential data for the public health policies. From the methodological point of view, in 2010 there were questioned about motivation only the smokers who said they had tried to quit smoking at least once in last 12 months. They were asked to choose reasons that have influenced them to quit smoking from the following list: concern about the personal health, family/ partner/ friends, the price of tobacco products, concern about the effect of the smoke on non-smokers, advice from a doctor or other health professional, smoking restrictions in public places like bars and restaurants, the

society disapproves of smoking, smoking restrictions at work, warning labels on tobacco packages, a media campaign, free or lower cost stop-smoking medication, availability of telephone quit-line.

At European level, the first in the hierarchy of reasons for quitting smoking is *the concern about the personal health* (reason chosen by 71% of the respondents). This reason was largely chosen by Irish and Finns (90%). It was chosen in the smallest extent by Italians (45%). The second reason in the hierarchy was *the influence of family / partner / friends* (52%). This reason was largely chosen by Slovaks (80%) and it had the lowest extent in Italy (38%). Ranking third in the smoking cessation reasons hierarchy is *the price of tobacco products* (47%). Price incidence is highest in Slovakia (76%) and Hungary (75%) and lowest in Denmark (22%) and Luxembourg (23%).

At European level, the smokers chose to the lowest extent the following reasons: the availability of telephone quit-line (2%), free or low cost stop-smoking medication (6%) and a media campaign (11%). Regarding the data on Romania, the reasons chosen to the highest extent by the Romanian smokers were the following: *the concern about the personal health* (86%), *the price of tobacco products* (60%) and *the influence of family / partner / friends* (51%). The reasons chosen to the lowest extent by the Romanian smokers were: the availability of telephone quit-line (2%), a media campaign (14%) and smoking restrictions at work (14%).

3.6. The places where people smoke

3.6.1. Smoking at home

In 2006, at EU level, 80% of the smokers said they smoke at home. Romania recorded a very similar percentage (81%).

The highest percentage was recorded in Hungary (92%) and the lowest in Finland (50%). In 2010, 70% of the smokers in the EU and 83% in Romania declared that they smoke at home. We can notice a decrease in smoking at home prevalence in Europe (with 10%) and an increase in the Romanian case (with 2%) in only four years.

The Eurobarometer 2010 contains a supplementary question for all the respondents: if they allow smoking at home.

At the EU level, 38% of the subjects responded that they allow smoking in their own house and in Romania 47% of the respondents said so. The most permissive country regarding smoking at home was Greece (61%) and the less permissive was Finland (5%).t

3.6.2. Smoking at work

The Eurobarometer 2006 does not contain data on smoking at work. It focused on the behaviour of tobacco consumption at home, in car and in public places (bars, restaurants, airports, etc.). The Eurobarometer 2010 measured the exposure to tobacco smoke at work showing that a quarter of EU citizens are exposed to tobacco smoke in their workplaces (23% of which 5% over 5 hours per day). In Romania, 37% of the respondents said they were exposed to smoking at work and 7% of these are exposed more than 5 hours per day. The most exposed to smoking at work are the employees of Greece (19% more than 5 hours per day) and the least, those in Sweden.

3.7. The perception about anti-smoking campaigns/policies

The Eurobarometer 2006 showed that 83% of the EU citizens were aware of at least one anti-smoking campaign. In

Romania, 69% of the respondents said so. The extreme scores were recorded in Denmark, Finland (94%) and Bulgaria (45%). However, 68% of the smokers in Europe declared that these campaigns have not led them to quit smoking. In Romania, the percentage was close to the European one (64%). The greatest impact of these campaigns was measured in Ireland and the lowest in Bulgaria.

The Eurobarometer 2010 used different measures for this indicator. It collected data on subjects' attitudes towards *the tobacco control policies* already implemented in several EU countries. The data show that the most EU citizens agree with these policies.

The questionnaire applied in 2010 contained a list of several anti-tobacco measures (for example, pictures of warning on cigarette packages, the introduction of additional taxes on tobacco products, banning tobacco advertising at sale points, prohibiting sale of tobacco products on the Internet, etc.).

The percentage of non-smokers who agree with these measures vary depending on the type of measure, from 61% to 80%, and among smokers it varies between 21% and 61%. A majority of both smokers and non-smokers agree with putting pictures of warning on cigarette packages but disagree with the measure of increasing taxes for tobacco products. Non-smokers agree with banning cigarettes sale at the automatic sale points.

In terms of socio-demographic characteristics, the respondents who mostly agree with the anti-tobacco policies are: women, people over 55 years, managers and retirees.

In Romania the highest score was recorded by putting pictures of warning on the cigarette packages (72% agree with this measure). For this item, the highest score was recorded in Malta (95%) and the lowest one in Denmark (55%).

4. Conclusions

Romania is very close to the European average in terms of the basic indicators of tobacco consumption. The number of people who quit smoking from 2006 to 2010 is significantly lower than in Europe, but it follows the same upward trend. Contrary to the European trend in Romania the average number of cigarettes smoked per day has increased.

The Romanians have a higher tendency for smoking cessation in relation to the European average but the smoking cessation has the same type of motivation as in most European countries. Romanians smoke more at home or at work compared with the European average. Romanians agree with the policies and anti-smoking campaigns in a proportion almost equal to that at the European level and consider that the most effective anti-smoking measure is putting picture health warnings on all packages of tobacco products.

Regarding the methodology used in this study, the secondary data analysis allowed me to identify and compare relevant indicators for the smoking prevalence in Romania. However, the documents examined here – the Eurobarometers – do not contain identical indicators for each year and this fact created a series of difficulties in analysing the evolution of some indicators for the period of time taken into account. The data provided by the Eurobarometers represent nevertheless an essential informational support in shaping anti-smoking policies in each European state.

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