Impact of the Major Determinants of Health Condition in Romania in Comparison with EU Countries

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Abstract

The purpose of the paper is to analyse - as a comparative approach to Romania and the European Union - the major determinants of the population's health condition. The analysis lays the stress on all dimensions of the factors that refer to the concept of health condition, including quantitative data on the quality of life, since health has both an individual dimension and a public one. Moreover, since health and illness have a clearly defined social and cultural influence, they should be studied in the broad, global context of the major determinants of the main health problems.

Keywords: *health, human development, education, stress, cultural influence*

The major determinants of the main health problems are related to the following:
- an unfavorable economic-social situation;
- a sanitary behaviour influenced by the health risk factors: smoking, excessive alcohol drinking, improper (unreasonable) diet, drug addiction, physical inactivity (sedentary life, etc.);
- poor environmental conditions, mostly due to the pollution (air, water, soil).

Socio-economic determinants of health condition

The relation between the population's health condition and the socio-economic development level is a cybernetic-type one, that is the health condition is an important determinant of the socio-economic development, and the socio-economic situation is, in turn, an important determinant of the health condition. In all countries, the morbidity and disablement rates are higher with the less favoured socio-economic groups.
The social-economic situation is related to the position of the individual in the society. It is structured by several criteria, out of which the scientific health publications (European Commission, 2003, 33-39) deal with the following:
a) macroeconomic determinants;
b) education level;
c) family structure, other social networks;
d) the population's employment level.

1.1. Macroeconomic determinants

The macroeconomic determinants partially explain the level of the expenses on health made by a country or the individuals who form the population of that country. The prevalence of the poor health condition grows steadily with the decrease in the incomes.

Trends in the EU

The GDP trend in the EU was essentially positive (European Commission, 2003, 33). The late 1980's witnessed high growth rates of the real GDP (about 4%). After a considerable slow-down in the early 1990's, the EU economies began to grow.
But one may notice considerable differences in incomes among the EU countries. The per capita GDP allows us to outline three clearly defined groups:

- High income group: Luxemburg.
- Medium income group: Belgium, Denmark, Germany, France, Ireland, Italy, the Netherlands, Austria, Finland, Sweden, the United Kingdom.
- Lower income group: Greece, Spain and Portugal.

Romania

While Romania's population accounts for about 6% of all EU-25 population, our country produces only 1.1% of the GDP (SPP) of the EU, according to the 2010.
In 2008, Romania's per capita GDP amounted to 6500 SPP, which is about four times lower than the EU-25 average. If compared with some EU-27 countries, Romania achieved in 2008 only 14% of the per capita GDP of Luxembourg, 24% of Denmark, 24.4% of Austria, 39% of Portugal, and 37.1% of Greece.

I.2. Human development indicator

The complex human development indicator includes also the level of the population's health condition.

Trends in the EU

In the period 1990-2010, the trends of the human development indicator were positive, with a higher dynamics in the period 1990-1995 and a lower one in 1995-2010.
Some countries, such as Sweden, Germany the Netherlands, Ireland, reached very high levels ranging between 0.885 and 0.895 (at the beginning of 2010). Other countries, such as the latest 12 members, reached a level below 0.849.

Romania

The analysis of the HDI in Romania, in the period 1990-2010 shows the considerable gap between Romania and not only the EU-27 countries; but also the latest countries that joined the EU.
Romania even had a setback in 1995 (0.674) as against 1990 (0.688), that is the worsening of the standard of living, caused also by the unavoidable shortcomings of the transition to the market economy.
After 1995, the indicator increased, but the gap remained. For example, in 2010, R. Czech, Slovenia, Slovakia, Malta (with indicators ranging between 0.841 and 0.815 reached a HDI much above that of Romania 0.767 in 2010).

1.3. Education level

Education, as long as it influences the social status, is a determinant of the sanitary health components. The prevalence of the poor health conditions increases quickly with the decrease in the education level.

Trends in the EU

Finnish and Irish studies point out that the life expectancy and the hope for better health conditions are high (European Commission, 2003, 34). The same studies reveal a higher probability of early death with the individuals having the lowest learning results.
Also, education is highly correlated with the sanitary customs and habits. Thus, while a country's curve of the tobacco addiction epidemic follows a rising trend, it occurs mainly among the less educated groups of the population. One may

also find out that in all EU's countries, the less educated groups eat very rarely fresh vegetables and fruit, and usually they are more obese than the educated people.

Romania

If compared to the EU-15 average, Romania has a high share of population aged 25-64 years, with a medium education level: 60.9% as against 43% (EU-15 average). But Romania's population groups aged 25-64, with a high education level, is only 9.6%, as against 21% in the EU-15.

I.4. Family structures and other social networks

Traditionally, the family is the prime source of informal health and the main system of support of the youth and the elderly. It is also the junction point of the social values and traditions, which are major determinants of the sanitary behaviour. Moreover, the family structures are important means of common living and have a direct impact on the sanity as well as other forms of morbidity and mortality.

The analysis of this determinant of the health condition cannot be separated from the family "crisis" of the modern society, which is under the pressure of the alarming dynamics of the new alternative family structures, influencing negatively the health condition themselves, as confirmed by some psycho-sociological researches.

In the context of the profound changes in the families of the contemporary society, the transition from the traditional model to the modern one is over, and today one may take into account a post-modern model. (Mărgineanu, Ioan; Bălaşa, Ana, 2002, 109-145).

The population analysis reveals the marriage rate diminution, older average marriage age, higher rates of celibacy, divorce, birth, etc. In the context of the above trends, there are other types of family life: single-parent families, consensual marriage, serial marriage, family conglomerates, etc.

Trends in the EU

The *marriage rate* in the EU countries varies between 5 and 5.5 to 1000 people, and decreases gradually.

The *divorce rate* in the EU countries is about 1.5 to 1000 people and also decreases (after the 1980 peak), which is explained by the decreasing marriage rate (Popescu, Raluca, 2002, 112).

Romania

The *marriage rate* is significantly higher in Romania: 6.9 to 1000 people in 2008, as against the EU-15 average of 5 to 5.5. But there is a descending trend: from 8.3 to 1000 people in 1990 to 6.9 in 2008. Below the country average (6.9 to 1000 people) we find 30 districts and the lowest values in: Braila (5.5 to 1000 people), Harghita (5.4), Teleorman (5.3). It is worth mentioning that the above districts' urbanisation level is below the country average.

The *divorce rate* was 1.66 to 1000 people in 2008, much above the 1990 average of 1.42. In 18 districts, the divorce rate is high (over the country average of 1.66 to 1000 people), and much higher (in 2008) in the following districts: Hunedoara (2.69 to 1000 people); Galati (2.17 to 1000 people); Bacau (2.14 to 1000 people); Braila (2.44 to 1000 people).

1.5. The population's employment level

A stable job produces not only income and some material wealth, but also a structuring effect on the social life, giving reason to the personal existence. A regular and sufficient income from labour means inviting prospects for the individual's future and shapes the family's long-term projects.

The highly hazardous working conditions may increase the cost of the industrial diseases. Such conditions occur frequently in the construction sector, industry and agriculture, as well as in some sectors employing unskilled or untrained workforce (e.g., transport, hotel and restaurant business).

Trends in the EU

The highest unemployment rate is in Spain, where a two-digit rate has lasted since 1980 (European Commission, 2003, 35). The lowest rates are in Luxembourg and Austria.

The long unemployment accounts for almost 50% of the unemployment in the EU-15 (from 25.2% in Denmark to 66.2% in Italy). The long unemployment rate in Spain (10.8%) stands in contrast with Luxembourg's rate (0.9%), while the Community average is 5.2%.

Romania

Romania's employment indicators reveal the existing gap with the EU-25 (including the new member states). Analysing the population by business sector one may find the low share of the services sector and the critical one of the health care services.

2. The sanitary habits and the factors of hazard to health

The factors of hazard caused by habits include: smoking addiction, alcoholism, drug addiction, unhealthy diet, no physical exercise (sedentary way of living) and sexual habits.

2.1. Trends in the EU

Smoking

The incidence and prevalence of the smoking with men have diminished since the 1980's, but increased with women. The difference in smoking between men and women is minor in Denmark, Ireland, the Netherlands, Sweden and the United Kingdom. The difference is diminishing in Belgium, Germany, France, Luxembourg and Austria. It is still considerable in the southern countries: Spain, Italy and Portugal. The highest rate of smoking in the world is found with the Danish women (European Commission, 2003, 36).

Alcoholism

Although there is no adequate indicator of the number of deaths caused by alcohol, still there is a strong correlation between the mortal car accidents in the EU countries and alcoholism. In some member states, there is a strong effect of the alcohol on the suicide rate of men (Belgium, Austria, Portugal, Finland and Sweden) and women (Belgium, Germany, the Netherlands, Austria and Sweden) (European Commission, 2003, 37). The murder rate is also influenced by the excessive alcohol drinking.

The alcohol consumption is a key factor that explains the mortality caused by some diseases (cirrhosis, tumours, children born with malformations, etc.). The EU-15 average of the alcohol consumption is 9.4 litres per capita and per annum; France (European Commission, 2003, 37) and Luxembourg recorded the highest alcohol sales (about 15 litres per capita and per annum). Finland, Sweden and the United Kingdom recorded the lowest average alcohol sales (7.9 litres per capita and per annum).

Drug addiction

The drug addiction has a very harmful effect on the physical and mental health of the consumers, which might cause their desocialisation. To cover the expenses on the drugs, the consumers may commit crimes, especially robbery and prostitution. The drug addicts are vulnerable to the HIV and hepatitis. All EU countries are confronted with the negative effects of the prevailing drug addiction.

Unhealthy diet

The diet is very important for preventing illness and promoting health. An unbalanced diet has long effects on health, such as the blood circulation disease, cancer, insulin non-dependent diabetes, most of them causing early death.

There is a great variety of diets in the EU and one may distinguish among the diet cultures of the North and the South, of the Mediterranean countries. The diet pattern is more important for health and longevity than the individual nutriments.

Generally, in the EU there is a trend of socio-economic decline in the diet habits, as long as the fat is a relatively cheaper food (European Commission, 2003, 38):

- the consumption of cereals and cereal products diminished while the consumption of vegetables, meat and fat increased;

- the sugar consumption in Greece, Italy and Portugal is significantly lower than in Sweden, Finland and the United Kingdom;
- fruit and vegetables are highly appreciated in the North, especially by the young people;
- the generalisation of the sedentary life and the considerable absorption of fat produce very often a very high energy ration and weight increase; obesity is now a problem in most EU-15 countries.

Absence of physical exercise

The physical exercise improves the health and the quality of life of all age groups. Thus, the childhood and adolescence spent actively - by intensive physical exercise - may play a major role in preventing the osteoporosis and improving the bone density. The physical exercise may help the elderly to increase their muscle force, improve the mind functions and have a general feeling of well-being.

Risky sexual habits

The sexual habit is an important determinant of the physical and mental well-being. The hazardous sexual intercourse may cause unexpected pregnancy to the adolescent females, fertility problems, infectious diseases (AIDS, B and C hepatitis, syphilis, etc.) and other health problems, such as the death risk during the pregnancy or at birth.

2.2. Trends in Romania

If compared to the EU countries, in Romania the health risk factors caused by improper sanitary habits are more decisive, as confirmed by the proliferation of several infectious diseases (tuberculosis, syphilis, viral hepatitis, AIDS).
The World Human Development Report (2004, p. 156) shows that smoking differs very much by gender:

- Regarding the *female group,* Romania, with 25% of the adult smokers in 2000, is close to several EU countries: Belgium (26%), Spain (21%), United Kingdom (26%), Poland (25%), Hungary (27%), but behind Ireland (31%), Germany (31%), France (30%), Denmark (29%), Greece (29%), Netherlands (29%).
- Regarding the *male group,* smoking - 62% of the adult population in 2000 - in Romania is much above the EU average (ranging between 19% in Sweden and 47% in Greece), which might explain, in part, the high morbidity rate.

As regards the food consumption, there are no data comparable to the EU ones, but the data concerning Romania show an alarming diet deterioration, which affects the health condition, especially that of the unfavoured groups.
There is a rising trend of the consumption per capita (1996-2003) of all food (except for sugar) considered as factors of risk to health:
- calories, from 2953 (in 1996) to 3233 (in 2003);
- alcohol, from 8.9 litres to 9.6 litres;
- vegetable and animal fat, from 14.3 kg to 17.2 kg.

3. Poor environmental conditions

The evidence to prove the link between the physical environment and health is scarce and, consequently, the formulation of a health policy based on evidence is difficult. But, the available data on the EU (European Commission, 2003, 39-40) show that the air pollutants could be associated with the death of 40000-150000 adults every year. The main factors of risk to health caused by the environment are the following: outdoor air pollution (dioxin, solid matter, lead, nitrogen dioxide) and indoor air pollution (radon, tobacco smoke), water pollution (germs, lead, pesticides and nitrates), noise, water contamination and ozone layer thinning.

3.1. Trends in the EU

The EU-15 countries are taking measures to stabilize the gas emissions having a greenhouse effect. The available data show a diminution in the population's exposure to the carbon dioxide emissions. In the last two decades, the carbon dioxide emissions per capita, in tons, diminished in the developed EU countries: Belgium (from 13.3 tons to 10), Denmark (from 12.3 tons to 8.4), France (from 9.0 tons to 6.2), Luxembourg (from 28.9 tons to 19.4), the United Kingdom (from 6.5 tons to 5.4), the Netherlands (from 10.8 tons to 8.7), Sweden (from 8.6 tons to 5.3).

In the countries that were not members in 1980 and where the road traffic was low, the carbon dioxide emissions increased: Austria (from 6.9 tons to 7.6), Greece (from 5.4 tons to 8.5), Portugal (from 2.8 tons to 5.9), and Spain (from 5.3 tons to 7.0).
The EU-15 countries ensure the easy access of all population to a water source of good quality and all population has sanitary facilities of good quality.

3.2. Romania

The carbon dioxide emissions per capita diminished from 8.6 tons in 1980 to 3.8 tons in 2000. This diminution was caused by the modernisation or liquidation of several industrial production capacities that polluted the air during the centralized economy period and caused serious health problems.
The huge gap between our country and the EU in the environmental conditions is determined by the small part of the population having easy access to a proper water source (58% in 2000) and good sanitary facilities (53% in 2000).

4. Health promotion

An effective health promotion could change the impact of the above-mentioned health determinants. The governments are highly responsible for the health protection, for the disease-oriented interventions, for the risk to the living conditions. While the EU-15" countries have taken concrete measures with obvious results as synergetic effects on the morbidity and mortality levels, Romania still needs the joint action of all actors involved in the national health system, the more so as there are considerable territorial disparities in the morbidity level.

5. Conclusion

So, it may be concluded that Romania's adhesion to U.E. is a great challenge for the Romanian economy in a whole, economy which will have to become competitive with the structure and actors of the unique market. Considering the national sanitary system in particular, there is a need for a united action of all actors involved into the performance ensuring to improve and maintain the population health condition.
As for the subject of the present analysis, only by a coherent and constant approach of the connections between the determinants of the population health condition, the great three objectives of a performant national sanitary system may be achieved (OMS, 2000, XI-XX): 1. Health improvement, 2. Meet the population expectations, 3. Balanced distribution of financial contribution.
For Romania, which has to surpass the tremendous differences from other European countries in terms of major determinants of health condition, a priority are those problems to be solved in order to take maximum advantage of the opportunities generated by Romania's adhesion to E.U. In this respect, ample sectorial programs with positive impact on the population health condition are a necessity:
a. National Regional Development Programme;
b. development of organic farming;
c. institutional programs in the food industry to achieve food production according to EU standards;
d. employment programs work, coupled with the fight against poverty;
e. medical education programs in schools, universities, workplace, etc.;
f. environmental policies, road traffic.

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