

THE HEALTH STATE OF ROMANIAN POPULATION

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1. Introduction

The health is a complex phenomenon defined by OMS as “not only the absence of illness or infirmity, but also the physical and psyche welfare and social integration”.

The health state of population should be a major preoccupation of every state and the maintenance of this is an essential condition for a productive economically and social life.

Not only *the genetics factors*, but also risks factors associated with life style have an important role in health influence. It is well known the role of diet (fibbers, fat and vitamins consumption) in some disease etymology, and unhealthy habits like smoking and excessive alcohol drinking associated with sedentariness and obesity contribute to aggravate some affections.

Social and economical conditions, especially the income of population and its distribution, are related to the population health: low incomes limit the access to resources as food, houses, medicines and medical care.

Environmental quality constitutes an important determinate, which could have a positive or negative influence on health state, even if this is indirectly seen.

As access and quality health services contribute to prevent and curative diseases.

Every mentioned factor could be more or less important for the health of population, but the health problems are often generated by their synergist action (Figure 1).

The illness limits the individually autonomy and reduces the work capability and productivity; the assurance of a good health of population means a longer productive life and the reduction of social and public costs.

2. The analysis of health indicators

The relevant indicators for the appreciation of health population are total mortality for specific diseases, infantile mortality, life expectancy at birth, and the increasing incidence of some transmissible diseases. For Romania, those indicators have important regional variations.

a) Total mortality and death causes

From 1990 the value of total mortality is continuously increasing and in 1998 it was 15.6 ‰ that placed Romania in top of European countries. The regional distribution of this indicator shows that in some counties from Transilvania and Moldova the values are below of country average (Cluj, Alba,

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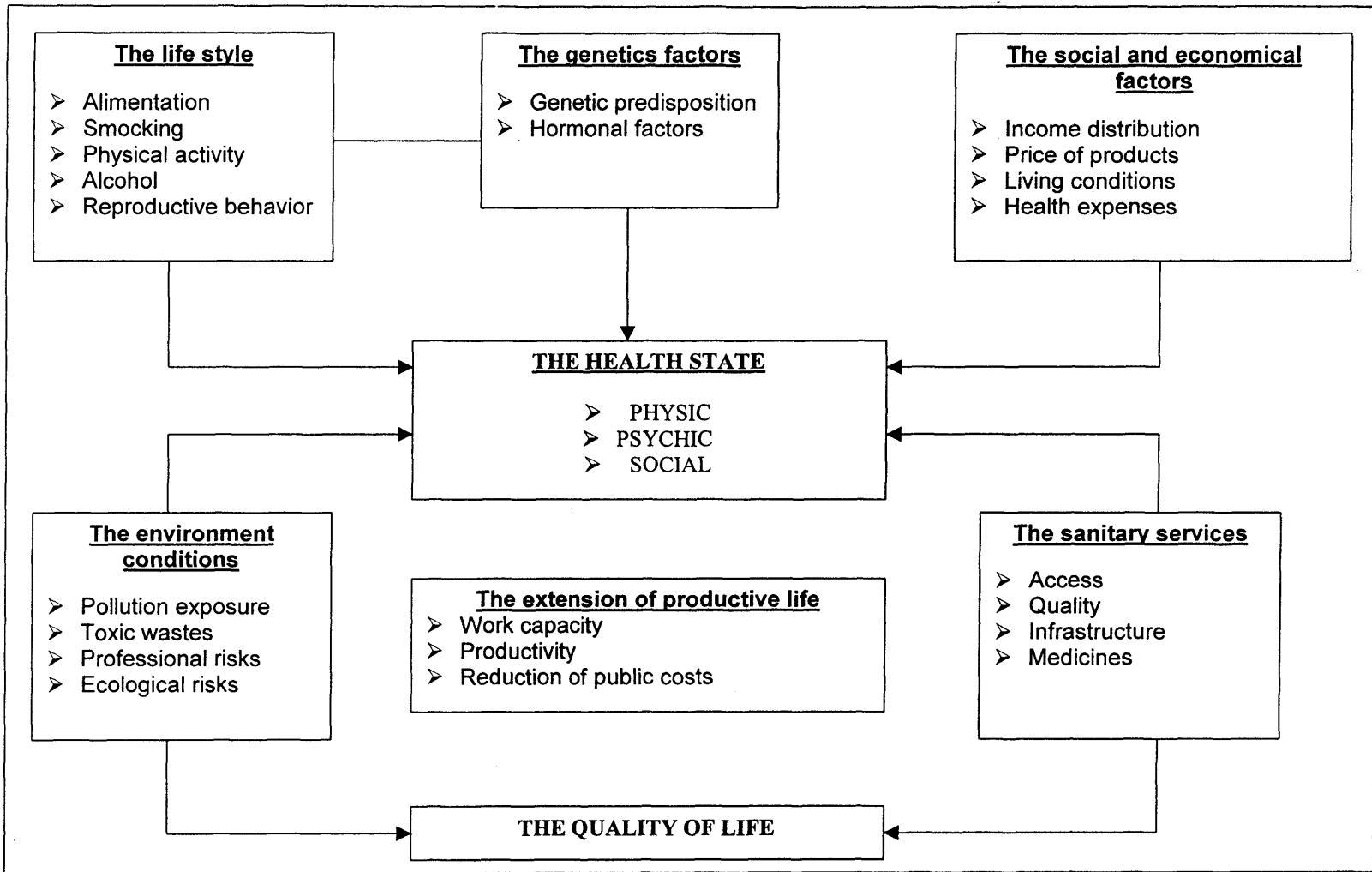


Figure 1. The Health State - determinantes factors

Hunedoara, Suceava, Neamt, and Bacau), while on the rest of the country the values are between 17-23 ‰.

On the first place from the death causes point of view are *the heart diseases* (Table 1).

The regional distribution of deaths shows that in West and Northwest of Romania its value is dominant and it exceeds 1000 deaths at 100,000 habitants. (Figure 2 a).

The main risk factors are high blood pressure, smoking, stress, and high cholesterol generated by unbalanced alimentation. Though the influence of the environment is not sufficiently known, it seems that the carbon monoxide pollution has an

Salaj, and Arad) as in Figure 2b.

The most frequently male cancer is the pulmonary cancer that represents 30% of the registered deaths and the main cause for this is the smoking. The dominant female cancer is the breast cancer that has the risk factors insufficiently studied.

The diseases of breathing system are continuously decreasing in Romania, because of the numerous vaccination campaigns between 1973 and 1996. However the values remain high by comparison with the others European countries, these are oscillating between 58 and 180 cases at 100,000 habitants with a maximum in South and

Table 1.The mortality dynamics on the death causes (%) of total mortality

No	Years	Total mortality (‰)	Disease of the circulatory system	Maligns tumors	Disease of breathing system
1.	1975	14.5	57.1	10.8	17.3
2.	1985	12.1	59.9	12.2	11.7
3.	1995	12.9	67.6	12.5	6.7
4.	1998	15.6	56.3	7.7	6.2

Source: The Medical Documentation and Statistics Center of Health Department.

important role on health problems.

Malign tumors represent the second cause of death both in Romania and Europe. Romania has one of the lowest rates of cancer death from Europe, probably because of incomplete or late track down of disease. The regionally variations are very high between 131 and 230 deaths at 100,000 habitants. The maximum values are registered in West and Northwest counties of the country (Maramures, Satu Mare,

Northwest counties of the country (Figure 2c).

An alarming element is constituted by the increasing number of deaths due to tuberculosis, which makes 23 victims at 100,000 habitants and places Romania again in the top of the European countries. (Figure 2 d).

b) Infantile mortality

Despite the continuously decreasing of this

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demographic indicator from 1990, its values are still high and in 1998 it is 22.8 ‰, which places Romania on the last but one position in Europe being followed only by Albania.

The main death causes are genetics anomalies, as very difficult controllable factor and pneumonia, as results of combining the social and economical factors. The analysis of this indicator values for county level shows that are some which have values over the country average like: Ialomita (38.9 ‰), Caras-Severin (34.4 ‰) and Constanta (34 ‰).

The values below 20 ‰ are recorded mainly in the counties from Transilvania, and also in the counties: Suceava, Buzau and Vrancea.

c) Life expectancy at birth

The high values of infantile and total mortality directs to a decreasing of life expectancy, so the average life expectancy of Romanian population is seven years less than the West European population.

From 1960, the average values have oscillated around 69.5 years with important differences between the sexes, respectively 66.9 years for males and 73.4 years for females. After 1982 it is mentioned, that the female's life expectancy was slowly increasing from 72.3 to 73.4 years, while the male's life expectancy was slowly decreasing from 67.8 to 66.9 years.

Regionally the minimum values are registered in Northwest and Southeast of the country (Satu Mare, Salaj, Bihor, Teleorman, Giurgiu, and Calarasi). The values over 70 years are noticed in some counties from Moldova, North of Muntenia, and Oltenia.

d) The increasing incidence of some transmissible diseases

During the period 1990 to 1998 there is noticed a progression of the incidence of some transmissible diseases like: tuberculosis- from 66.8 to 87.3 cases at 100,000 habitants, hepatitis- from 89.5 to 118.7 at 100,000 habitants, and AIDS- from 3,000 to 8,000 cases at 100,000 habitants (Table 2).

3. The health state of population, regional heterogeneity

The analysis of national health indicators shows that Romanian population has a precarious health state, which is continuously deteriorating. The regional differences recorded for the health indicator distributions suggest that the same variations could be noticed for the health status. A health index was calculated by standardization and aggregation of health indicators for the coherent revelations of those differences.

The calculated values of health index are oscillating between 0.378 and 0.667 with an average of 0.482. If we consider that as much the value is nearly zero as the health state of population is better, we can determinate three different areas:

a) *Areas with important health problems* - the counties with health index greater then 0.500;

b) *Fragile and vulnerable health areas* - the counties with health index from 0.482 to 0.500;

c) *Satisfactory health areas* - the counties with health index less then 0.482 (Figure 3).

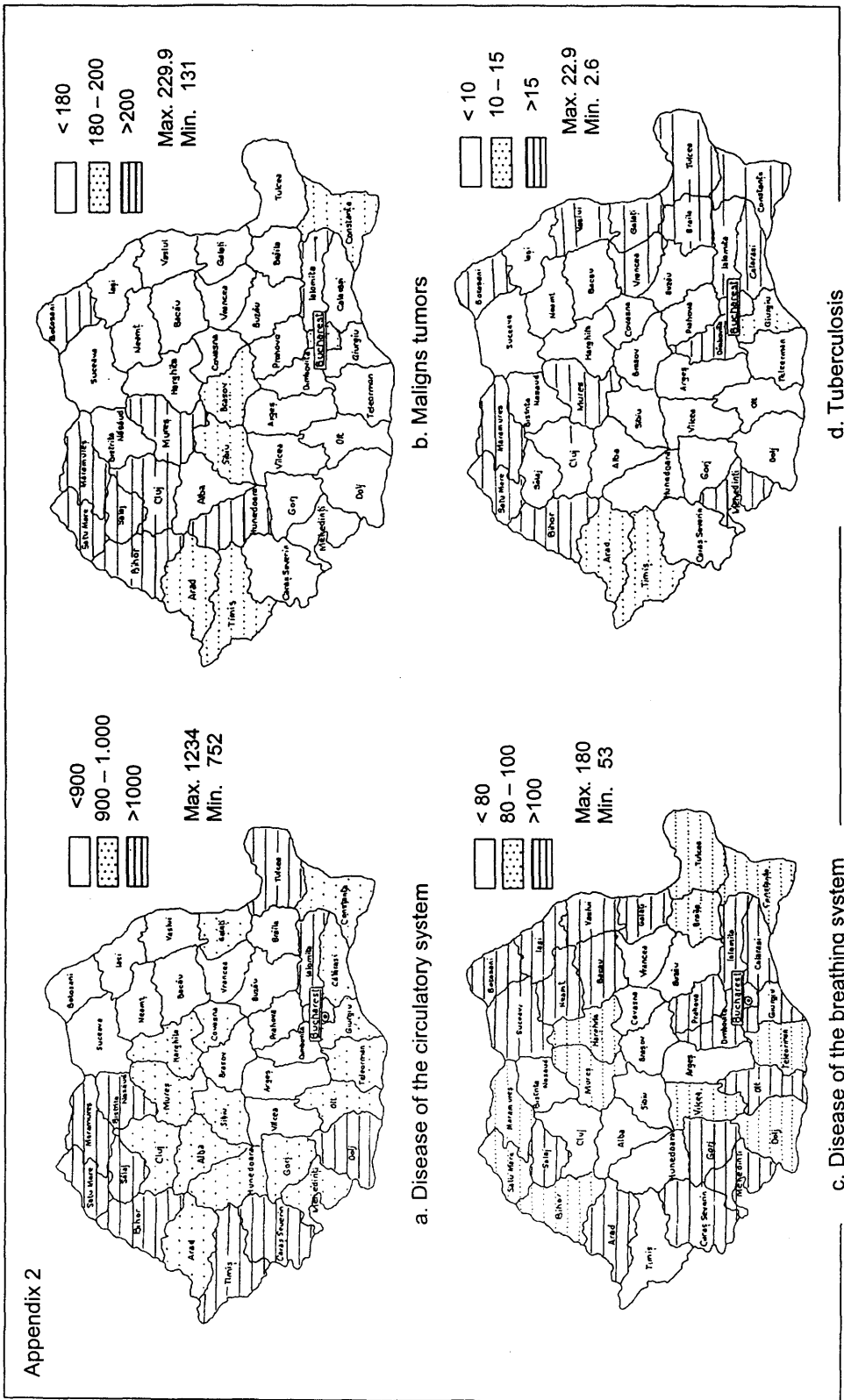


Figure 2. The space distribution of deaths according to the main causes of illness

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For the explanation of these regional differences of health status, there were considered as main determinants: the standard of living, the quality of sanitary services, and the environment pollution. The relationship between all these components and the health state was emphasized through the multiple regression. The plots distribution on the flowchart has suggested the existence of a

possible linear or logarithmic repartition for the health state in relation with the others determining factors. It was obtained the following relation:

$$F(x_1, x_2, x_3) = 0.691 * 0.236 * x_1 + 0.031 * x_2 + 0.119 * x_3, \text{ which includes:}$$

X_1 the standard of living index:

X_2 the quality of environment index:

Table 2. The incidence of mainly transmissible diseases

No	Diseases	Years				
		1990	1992	1994	1996	1998
1	Hepatitis	322.08	218.59	117.94	89.54	118.71
2	Tuberculosis	70.10	66.81	79.6	82.5	87.34

Source: National Statistics Center, Bucharest.

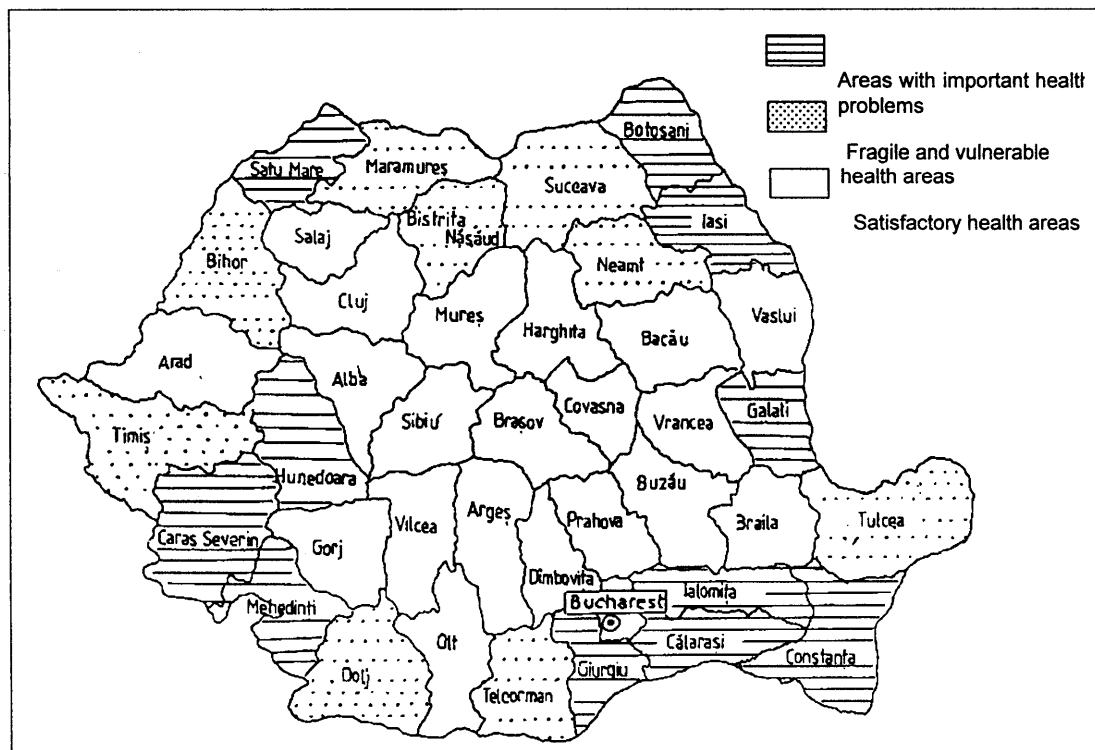


Figure 3. The health state of Romanian population - regional heterogeneity

X_3 the quality of sanitary services index.

The analysis of this relation shows that:

- The health state index depends mainly on the standard of living and it has reduced values where the habitant income is lower;

- The health state index depends on the quality of sanitary services and it is improved when this is increasing;

- The environment pollution contributes to worsen the health state, because it is added, but its weight is very low.

The ascending shape of graphic form for health index is emphasizing the improvement of health state by the increasing of the standard of living and the sanitary services (Figure 4).

4. CONCLUSIONS

The Romanian population presents a precarious health state; this is emphasized by the values of health indicators. The regional

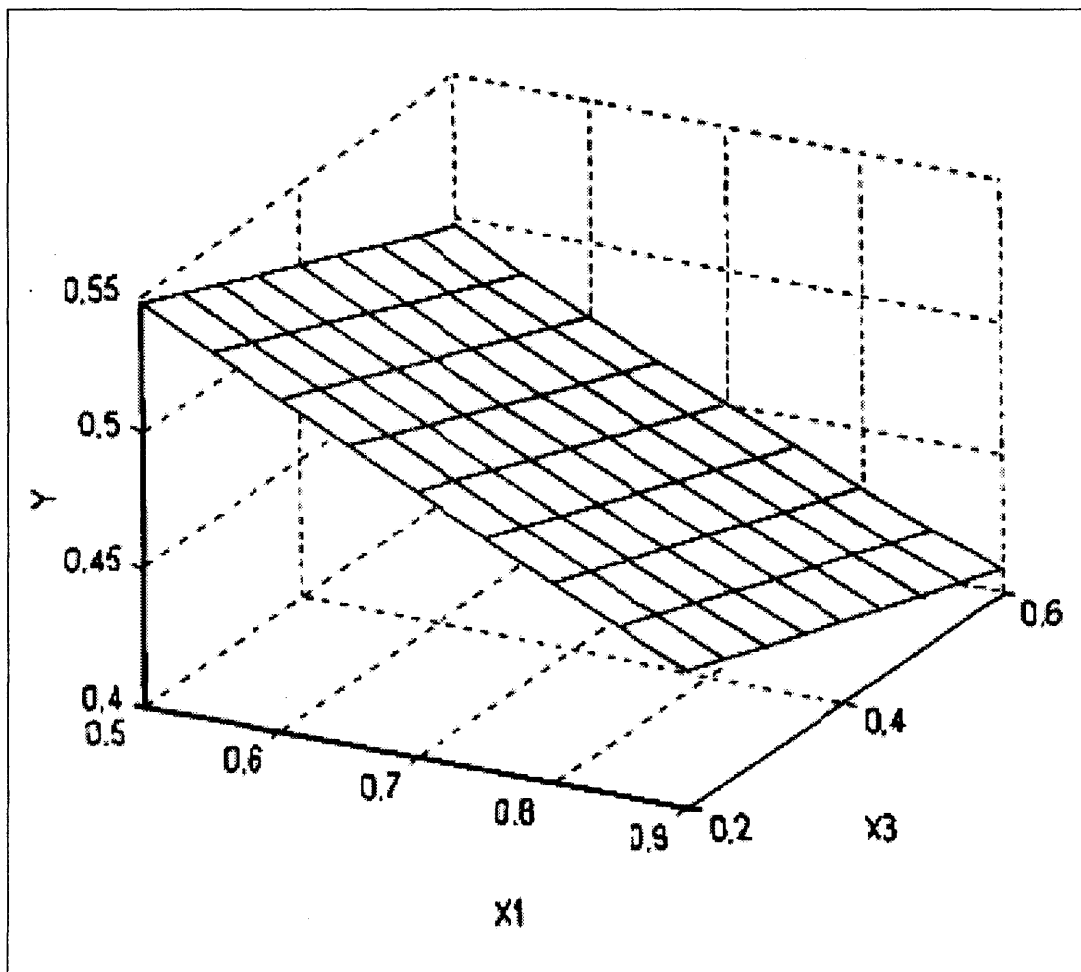


Figure 4. The relation between health index (y) the standard of living index (X_1) and the quality of sanitary services index (X_3)

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variations of these indicators directed to the three differential areas.

The standard of living and the quality of sanitary services explain these regional differences. However, the life style represents an important determinant it was not analyzed here, because its role will be the theme for another study.

We consider that the recent changes of medical policy in our country will be positively reflected in the health state of population.

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