



The Healthstate of the Romanian Rural Population

Liliana Dumitrache
University of Bucharest, Romania



Introduction

The paper tries to evaluate the health state of the population living in rural areas in Romania. In order to have a better view of the rural population health state, this is going to be presented in comparison with the urban population health state.

The health indicators considered as relevant in the evaluation of the health state (general mortality, specific mortality, life expectancy) showed the precarious health state of the rural population compared to the urban population.

The differences in the health state which appear between the two areas are generally the result of the lower living standard and of the inadequate quality of the health services. The serious health problems of the rural population should be paid special attention, the introduction of social and health policies being imperiously necessary, considering that in these areas live almost half of Romanian population.

The changes undergone in the last years in the political, economic and social life have influenced and still influence directly or indirectly the Health State of population.

Author's previous studies showed that Romanian population present a precarious health state, in comparison with both western European and eastern European countries that are also in a transition period.

The difficulties associated with the transition period have evidently led to a worse health state of the population, but the influence of some previous factors should not be neglected. In other words, the actual health state of the population should not be regarded only as the result of some factors (economic and social) that act at present; the direct or indirect influence of some previous factors, even if they are not active anymore, may still influence the health status for a long time.

Romanian population had, in the early 90's, a bad state of health, worse than that of the countries in Eastern Europe. The economic and social problems our country faces nowadays, made the situation even worse, thus, the already existent distance between Romania and other European countries (western or eastern) is even bigger.

The analysis of health indexes, at national and regional level, show major differences between different geographical areas, differences explained through the standard of living, life style or the inadequate health services. This paper will present the health indicators, trying to see and evaluate the existent differences in the health status between rural and urban areas.

The *Health index* in rural and urban areas (H_r , H_u) was obtained by aggregation of standardized indicators such as: infant mortality (Im), life expectancy (Lfx), mortality due to circulatory system diseases (Csd), mortality due to respiratory system diseases (Rsd), to digestive system diseases (Dsd) and tumors (Td); the values of these indexes showed the existent inequalities in the health status.

The evaluation of the differences in the health status of rural and urban population was realized considering the rapport between the two indexes (H_r/H_u), resulting different situations at regional level.

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The Regional Analysis of Health Indicators in Urban and Rural Areas

The analysis of health indicators in urban and rural areas shows important differences, both at national and regional level, the negative extremes characterizing almost always the rural area.

General Mortality and the Structure of Deaths by Main Death Causes

General mortality considered as being one of the indicators of Health State was in 2000 of 11,6 ‰; this general value has major differences, surpassing 14,4 ‰ in rural area and descending under 10 ‰ in urban area (8,9 ‰) (table 1).

Table 1. Health indicators in rural and urban areas by region (2000).

Region	General mortality rate	Mortality by main diseases (cases/100,000 inhabitants)					.Infant mortality rate	Life expectancy
		Circulatory system diseases	Tumors	Respiratory system diseases	Digestive system diseases	Infectious diseases		
Rural areas								
NORD-EST	12.9	763.8	176.6	121.9	75.1	17.2	24.3	69.9
SUD-EST	14.1	886.6	177.9	93.6	100.7	19.0	21.4	69.2
SUD	15	1020.7	191.9	93.9	70.4	16.4	20.3	69.9
SUD-VEST	15.9	1112.9	178.6	99.3	67.2	14.6	17.9	69.5
VEST	15.4	1070.6	214.3	69.7	52.5	17.4	19.4	69.8
NORD VEST	15.2	1022.4	207.4	76.8	69.0	14.6	20.4	68.4
CENTRU	13.4	874.5	204.7	62.5	47.9	13.3	17.8	69.7
BUCURESTI	12.2	700.6	211.4	94.5	64.4	23.0	12.8	70.1
TOTAL RURAL	14.4	942.1	190.7	93.2	70.8	16.3	20.8	69.5
Urban areas								
NORD-EST	7.2	352.9	149.6	40.9	63.1	11.8	20.2	71.6
SUD-EST	8.3	439.1	163.8	45.9	67.8	17.6	16.6	70.8
SUD	8.5	489.6	160.6	49.2	53.3	10.3	17.8	71.2
SUD-VEST	7.7	450.7	137.8	41.2	45.8	9.4	16.0	71.6
VEST	10.2	618.8	191.9	35.1	49.9	15.3	17.5	69.8
NORD VEST	9	531.0	178.9	35.3	57.1	9.4	13.4	70.6
CENTRU	8.6	491.1	177.0	37.0	48.4	8.1	14.5	71.5
BUCURESTI	11	617.0	241.7	55.4	70.0	14.4	13	72.4
TOTAL URBAN	8.9	500.0	178.4	43.2	58.2	12.22	16.1	71.3

Source of data: CNS, București, 2000.

At regional level, there are also differences, for the rural areas, the higher mortality rates characterizing the South-West, West and North-West regions while in the urban area, the same regions presents lowest values of this indicator.

The negative extremes are also in the rural area, counties as Cluj, Sălaj, Hunedoara in the West as well as Mehedinți, Dolj in South-West or Teleorman in South present the highest mortality rate in the country (over 17 ‰). A low level of mortality is registered in the counties of North-East region (Moldavia). These situations have explanations: the western part of the country had traditionally a low natality rate, the population, particularly in the rural areas, is older than in other regions and generally, the demographic ageing is associated with a high mortality rate. Situation is totally different in the urban areas: the towns from western part of Romania representing for a long time attraction areas for the working class from other regions, so having a younger population and thus, lower level of mortality. In the other case the counties from Moldavia, with a high natality rate, especially in the rural area, presents, a numerous young population, fact, which explains a lower mortality rate.

Even if generally, the mortality rate could give an idea on population health state, however, being so influenced by the age of the population we consider that, the structure and the distribution of deaths by main causes is more relevant, offering more elements for analysis (fig. 1).

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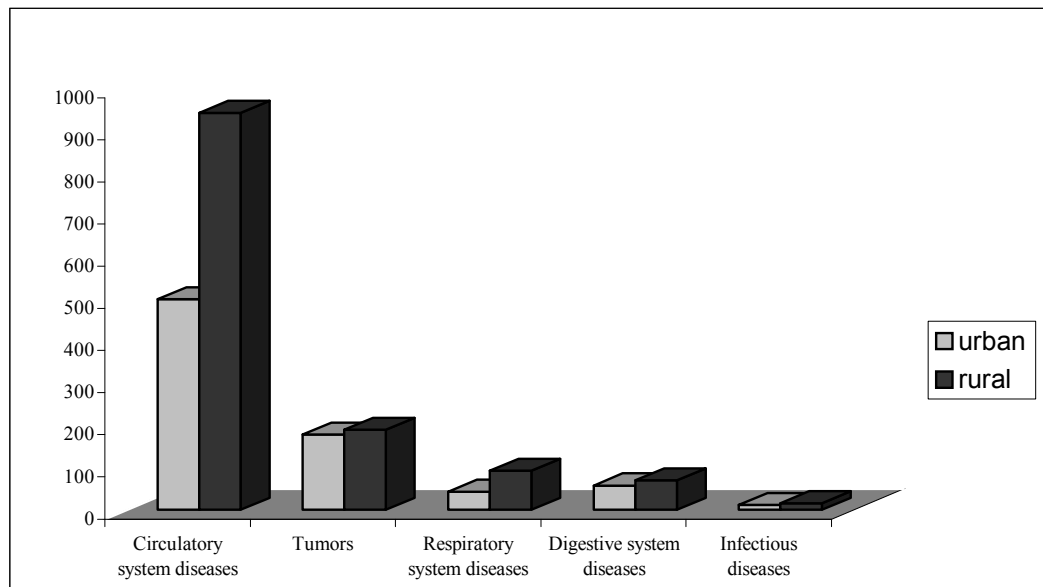


Figure 1. Structure of deaths by main diseases in Romania, 2000.

Mortality Due to the Circulatory System Diseases

Presents values two times higher in the rural area than in the urban area, respectively 940 cases/100 000 inhabitants compare to 500 cases/100 000 inhabitants in urban areas (see table 1).

In rural areas, particularly in South-West, West and North-West regions, one can notice the highest values of this indicator, counties as Timiș, Arad, Sălaj, Mehedinți registering over 1000 cases/100 000 inhabitants (fig. 2).

For the urban area, the frequent values are around 500-700 cases/100 000 inhabitants in the counties from the western and the center parts of the country and higher values 700-1000 cases/100 000 inhabitants in counties from Moldavia.

The dietary habits of the population living in these areas, which traditionally consist in foods poor in nutritive elements and with a high content of fats, frequently associated with a high consume of alcohol, explain in a way these values.

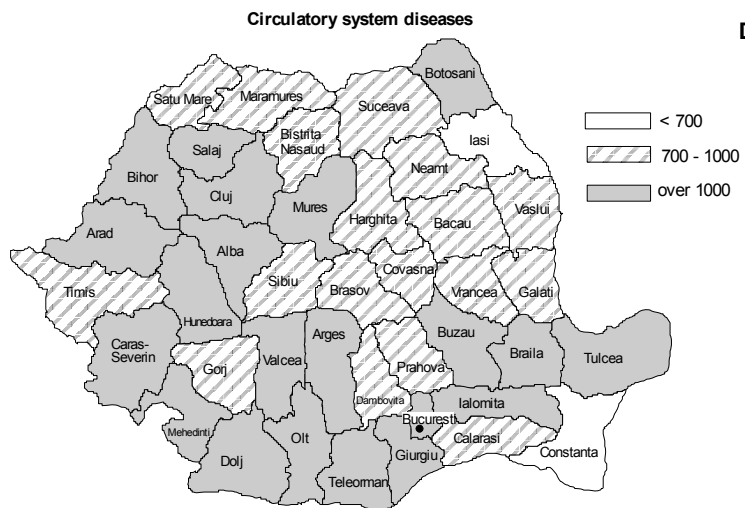
Mortality Due to Respiratory System Diseases

At the national level, the mortality due to the respiratory system diseases presents lower values than those due to the circulatory system diseases (see fig.1), but at regional level the situation is almost the same. Thus the highest values, over 100 cases/100 000 inhabitants, are registered in rural area, particularly in the northeast, (counties as Suceava, Botoșani, Neamț, Bacău) or in the south (Dolj, Giurgiu, Ialomița) (see fig. 2).

In urban area, the frequent values are lower than 50 cases/100 000 inhabitants, except for some counties in the east (Iași, Vaslui, Galați, Brăila, Tulcea) with mortality rates between 50-100 cases/100 000 inhabitants. These diseases are also influenced by the lack of nutritive elements and of vitamins, leading to a worse organism immunity, the frequency of these diseases being higher. The alcohols consume and smokings have also negative influences, with a significant role in the etiology of these diseases.

Mortality Due to Tumors

Tumors represent the second major cause of death in Romania.



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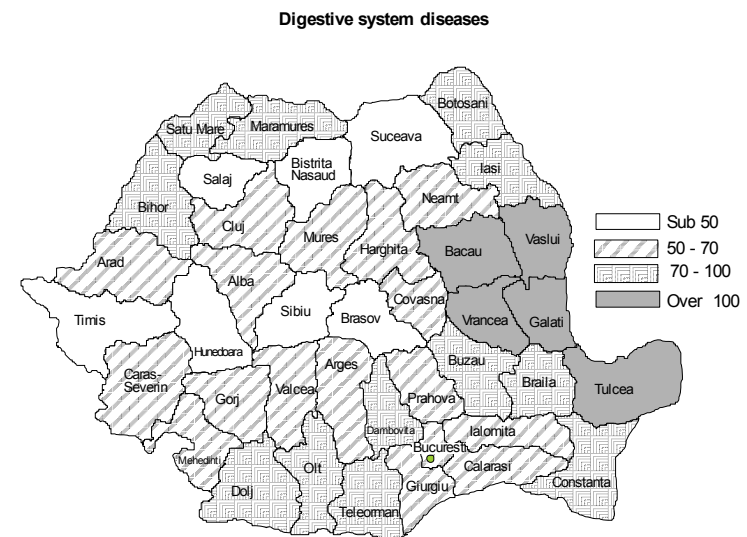
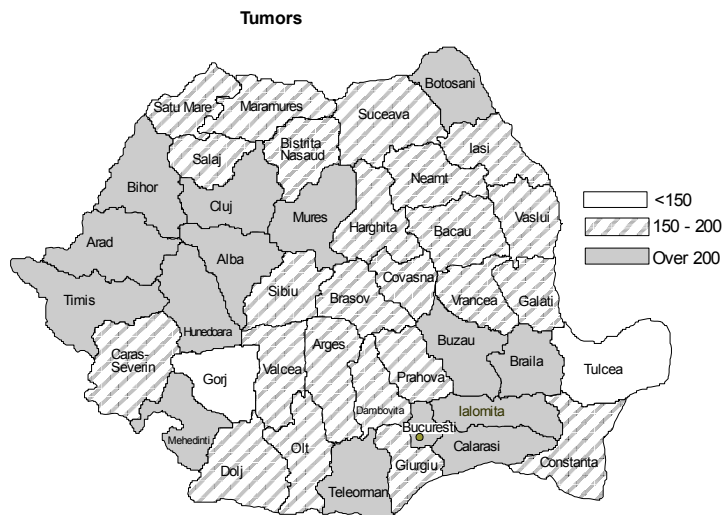
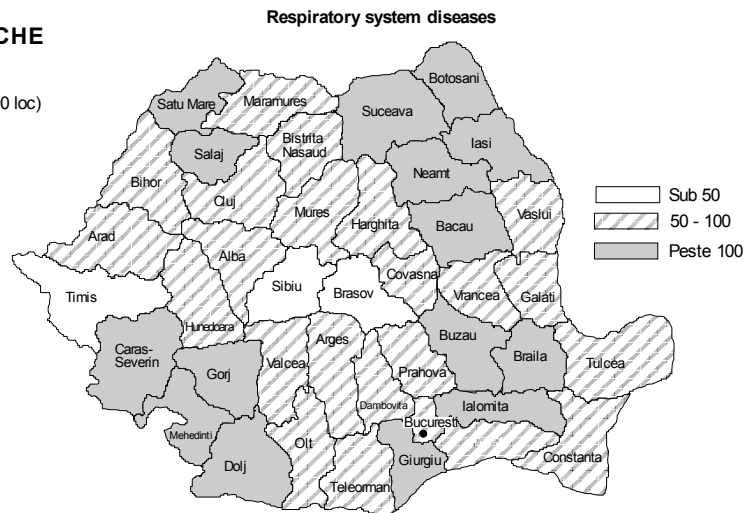


Figure 2. Distribution of deaths by main causes in rural area - 2000 .

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In 1997, the mortality due to these diseases was higher in urban area than in rural area. In three years, the situation is changed, the numbers of deaths due to these diseases in rural areas surpassing 190/100 000 inhabitants comparing to 1784/1 000 000 in urban areas (see fig. 1). At territorial level, the highest values are also in the west, the counties Arad and Timiș, having rates over 200 cases/100 000 inhabitants, both in rural and urban areas.

In rural area, high mortality rates are in all the counties from the western and center parts of the country (see fig. 2).

In urban area, the characteristic values are under 150 cases/100 000 inhabitants for the southern, northern and eastern counties and higher values 150-200 cases/100 000 inhabitants in the center.

The population regular diets, from center and west that frequently use fats and alcohol can explain the relatively high number of deaths in these regions, in comparison with other regions.

Mortality Due to Digestive System Diseases

Generally speaking, for this type of diseases, mortality rates for rural and urban areas are almost equal, (70.8/100 000 in rural areas compares to 58,2/100 000 in urban areas) (see table 1). Territorially, in rural area, values over 100 cases/100 000 inhabitants are in the northeast, in the counties Bacău, Vaslui, Vrancea, Galați, or in those from north-west Satu Mare, Maramureș, while in most of the counties, the characteristic values are between 50-70 cases/100 000 inhabitants (see fig. 2).

In urban area the values are 50-70 cases/100 000 inhabitants and even lower.

Mortality Due to Infectious and Parasitic Diseases

Last period, this cause of death presents a higher frequency, especially in the rural area where in 2000, last year when data was available, the mortality rate was over 16/100 000 inhabitants (see table 1). The counties from the southern part of the country are most affected by those diseases. The lack of sanitation water in some rural areas as well as the lack of sanitary education can explain the spread of these diseases.

To conclude, one can notice a high rate of mortality due to cardiovascular system diseases and tumors in the western part of the country while the eastern part of the country is characterizing by high number of death due to respiratory system diseases, digestive system diseases or infectious diseases.

The dietary habits and the age of the population from the western part of the country, the poverty, sanitation and low vitamins food in the eastern part of Romania explain the structure and the distribution of deaths. The role of each factor will be determined in futures studies.

Infant Mortality

The average infant mortality rate was 18.9 ‰ in 2000, respectively 16.8 ‰ in urban area and 20.8 ‰ in rural area (see table 1). The higher infant mortality rates characterize the northeast region, its value surpassing 20 ‰. Referring to rural areas, one can notice a number of 6 counties in which the infant mortality rate is higher than 25 ‰ and 15 counties registering values between 20-25 ‰.

Practically, more than half of the rural population in rural areas is characterizing by a high number of infant death. An explanation could be the higher number of birth in rural areas, particularly in the northeast region (Moldavia), being known the relationship between infant mortality an natality, but also the precarious sanitary services, the low level of medical assistance or the lack of medical personnel, very common in rural areas. In the center and western parts of the country, the infant mortality is lower, this fact being correlated with the number of births, lower in the last years.

Life Expectancy

The high level of general mortality and infant mortality rates have a negative influence on longevity, life expectancy regressing in the last years, from 69,9 years in 1994 to 69,5 years in 2000. The most characteristic values of life expectancy are between 68-70 years. In rural areas, the lowest life expectancy is registered in Northwest and Southeast region (see table 1), in the counties as Bihor, Satu-Mare, Tulcea, Constanța.

Comparing to rural areas, the urban areas presenting higher value of life expectancy, generally being 70 years. Most of the time the life expectancy in rural area is 3 year less than in urban area.

Geographical Inequalities in the Health State of Rural Population

The analysis of health indicators reveals important differences between the rural area and the urban one; these differences are reflected also by the values of health indexes, higher in rural area, a fact that shows that rural population has more serious health problems than urban population. Considering the values of health indexes, at the regional level one can remark, as having a good health state the population living rural or urban areas in Center and the Southwest regions while the population (fig. 3).

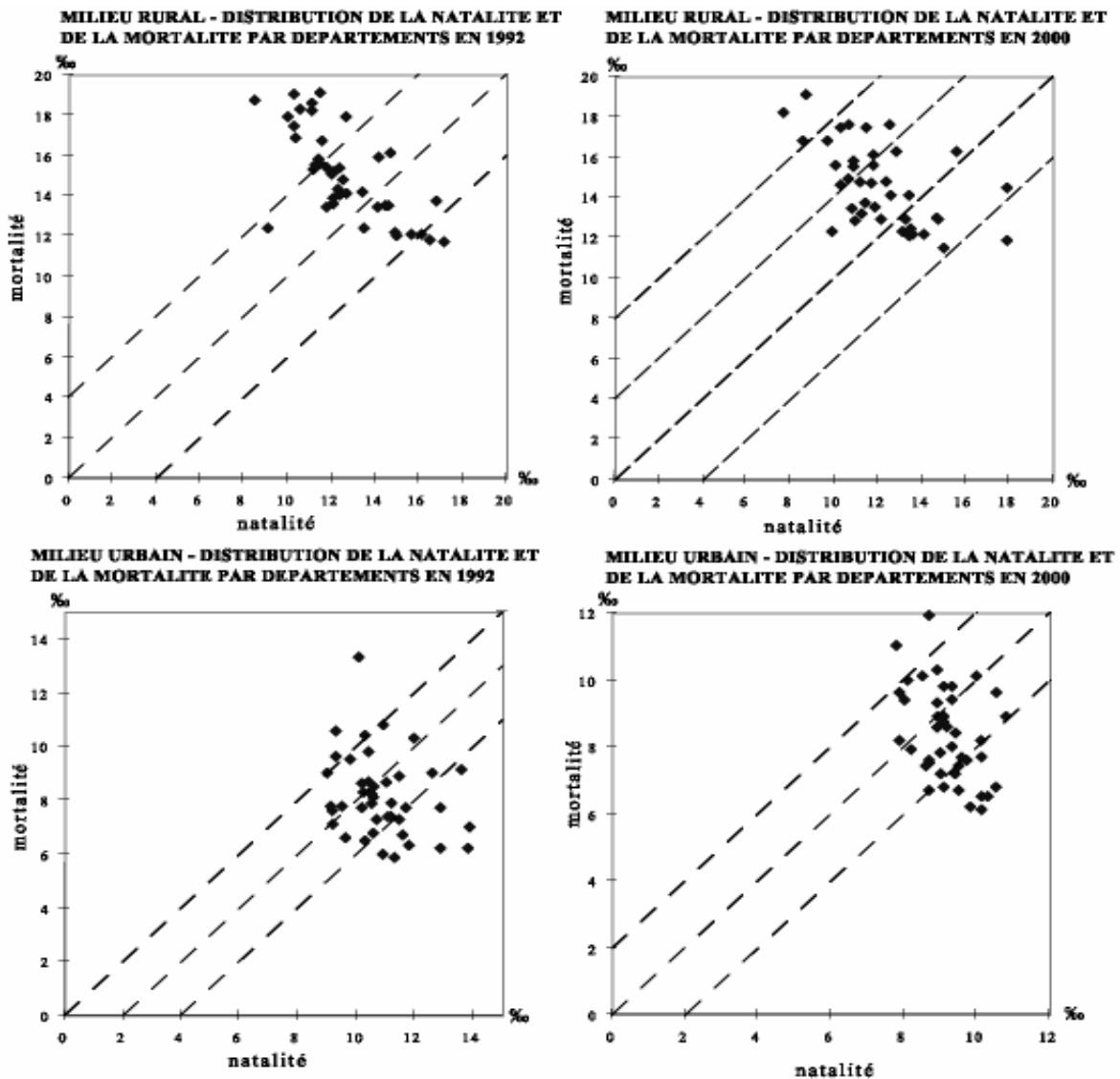


Figure 3. Distribution of the natality et mortality in rural and urban environment.

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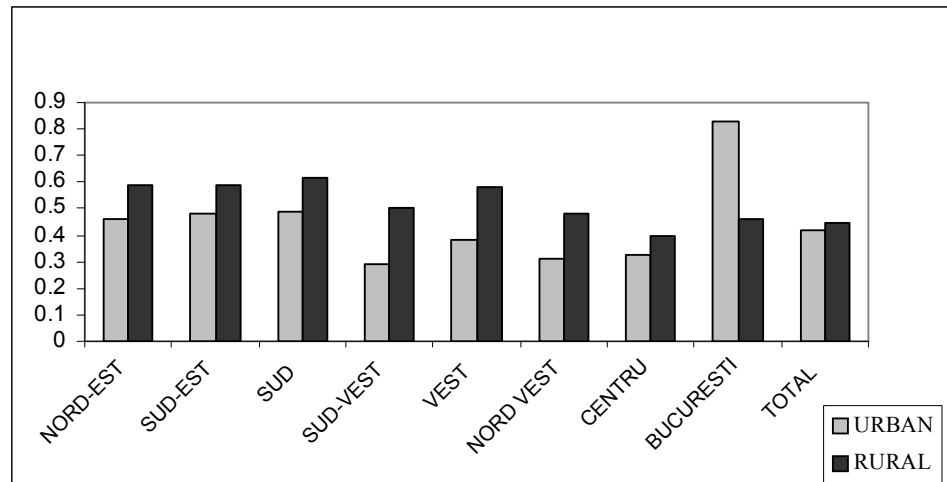


Figure 4. Distribution of Health Indexes by regions-2000.

According to the health index (Hs), three areas were delimited for both urban and rural areas: *areas with serious health problems* that include the counties with the highest health index values (0,500), *areas with frail health state or vulnerable areas* that include counties with high health index (0,400-0,500), and *areas with acceptable or satisfactory health state*, that comparing to first two, include counties, from both rural and urban areas, with the lowest health index values (lower than 0,400). Territorially, we can notice for the urban area that the *satisfactory areas* are characteristic, and to a certain extent there are some *vulnerable areas* from the health point of view- around 10 counties such as; Ialomița -0,433; Teleorman -0,424; Vaslui -0,401 and a number of 4 counties with serious health problems, the first ones being Călărași -0,605, Prahova -0,604, Brăila-0.588, Arad-0.515 (fig. 4).

In rural area the situation is changed, the *vulnerable areas* or those with *serious health problems* are characteristic for the southern and western part of the country, while the *satisfactory areas* are less frequent (only in 10 counties the values are lower than 0,400). Counties such as Botoșani -0.692, Vrancea -0.612, Teleorman -0.624, Bihor-0.549, Ialomița, Mehedinți, have the highest health index values (see fig. 4).

Comparing the health indexes, for both rural and urban areas in each county, we notice different situations, the more frequent ones are those in which rural population health status is *worse or considerably worse* than that of urban population, in counties such as: Caraș Severin, Gorj, Vâlcea, Olt. The serious differences are in counties such as Vrancea, Ialomița and Botoșani while the insignificant differences are characteristic in counties like Tulcea or Galați.

Rarely, there are also situation in which the population health status is *better or considerably better* in rural area than in urban one, in counties such as: Prahova, Sibiu, Timiș (fig. 5).

The high frequency of the situations in which rural population health indexes (H_r) have values higher than the values of urban population health indexes (H_u), reflects once again the serious health problems the rural population faces.




These situations can be explained by the low life standard of the rural population, that determine restrictions and limits regarding the access to health care system (medicines, well trained staff), and by poor alimentation (eating the same products every day). The alcohol consume is not to be neglected, being higher in rural areas, due to the high rate of unemployment and to the every day discontents.

However, an encouraging fact is that comparing to 1997, in 2000, the health state of the rural population seems to improve in such sense. According to the values of H_r , a number of 9 counties registered lower values than in 1997 while only 5 counties presents a higher H_r , in the same interval. The extension of the areas having improved their health state compares to those having higher values in 2000 show a positive tendency of this index (fig. 6).

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The population health state in urban areas (2000)



-  Areas with acceptable health state
-  Areas with frail health state
-  Areas with serious health problem

The population health state in rural areas (2000)

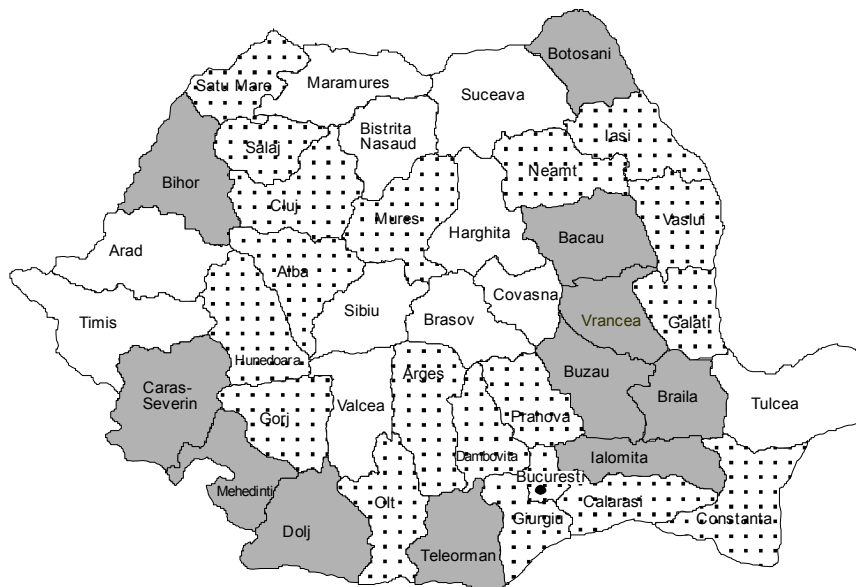


Figure 5. The population health state in urban and rural areas (2000).

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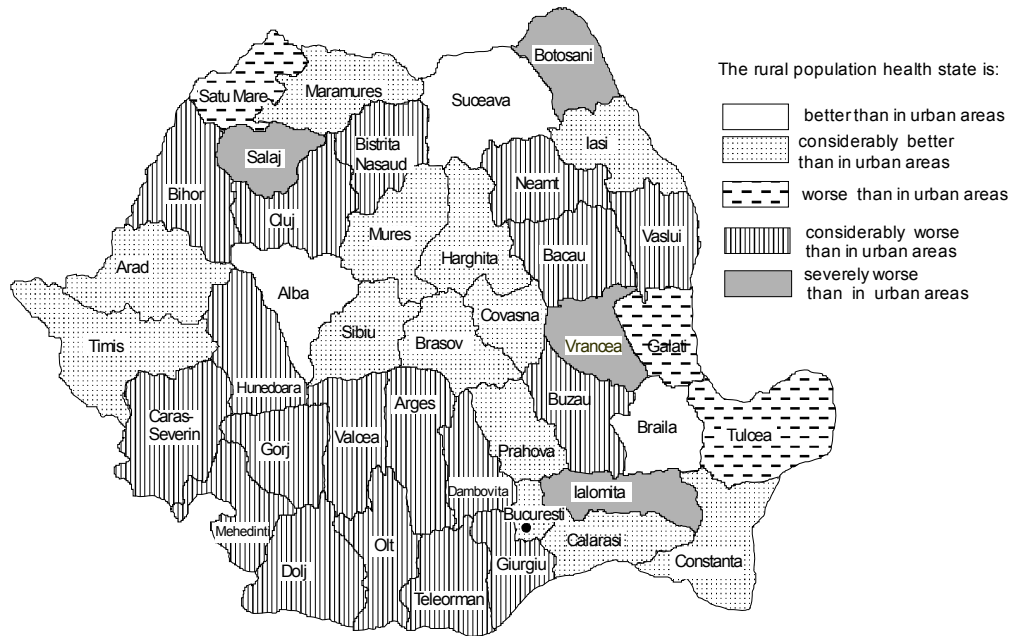


Figure 6. Differences between the rural and urban population health state (2000).

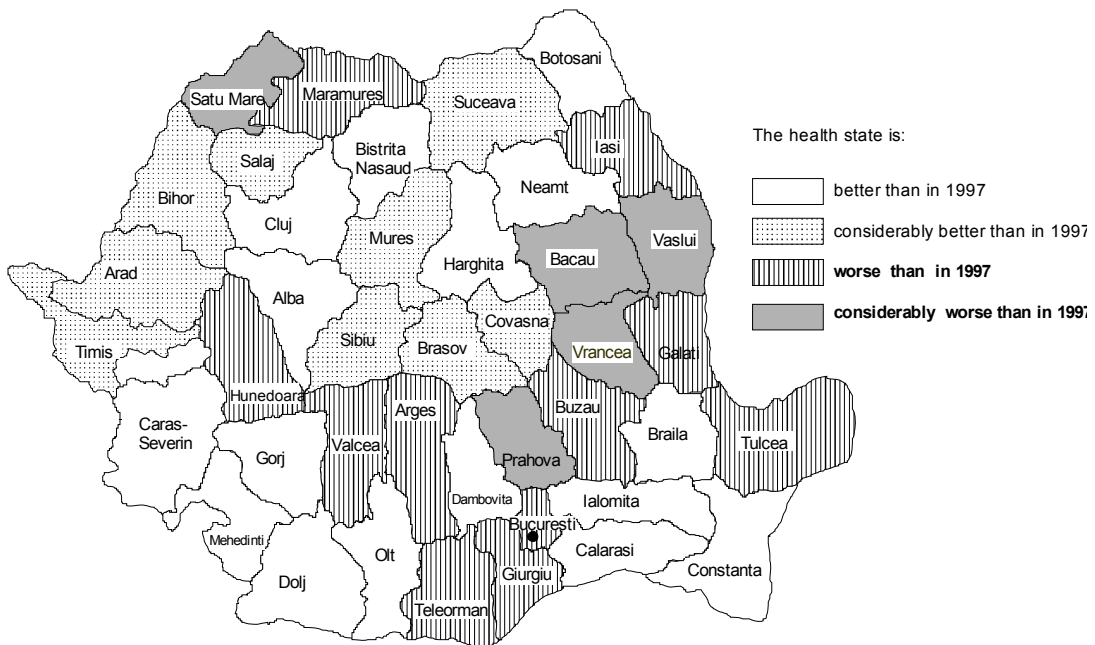


Figure 7. Changes in the rural population health state (2000 compared to 1997).

Conclusions

The analysis of health care indexes in both rural and urban areas, reveals important differences, the rural areas having the biggest problems. The evaluation of the health care status in the two areas shows that rural population health status is, with a few exceptions, *considerably worse* than that of urban population, a fact proved by the extension of the areas in which the rapport *Hu/Hr* has negative values. The main elements that led to this situation are: the life standard and the quality of the health care system, worse in the rural areas, as well as the lifestyle, especially the diet, the low quality food- in many cases being influenced by the incomes-, the high and frequent consume of alcohol and cigarettes. Taking into consideration the serious health problems that characterized the rural area, there should be introduced social and medical policies directed mainly to rural population.

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