ŒCONOMICA

The Health of Romanian Population in European Context

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Abstract: La santé de la population représente un domaine de portée fondamentale du développement socio – économique aspect évident vu les liaisons complexes entre l'état de santé et le développement humain durable. Les pays de l'Union ont enregistré, au fil du temps, des progrès remarquables en ce que concerne la santé des gens, mais, à présent, se confrontent à de nouveaux problèmes majeurs issus des modifications générées par les changements du milieu vital et de travail, par le comportement de consommation, etc. Aujourd'hui, la Roumanie se confronte à des problèmes sérieux concernant l'état de santé de la population et, notamment, sa préservation. C'est pour cette raison que la connaissance des coordonnées fondamentales de l'état de santé des Roumains devient essentielle, parallèlement à celles des citoyens de l'Union Européenne.

Keywords: human health, healthy life expectancy, demographic transition

Jel Classification: Q56, I11, R23

The Health of the population is an area of fundamental importance for economic and social development, because of the complex links between health and sustainable human development. Based on the concept that health is a fundamental right of every human being, it is interesting to see the major differences as regards the health of the population in Romania, compared with other population of the European Union countries. The countries of the union have made remarkable progress along the time as regards human health, but now they are facing new problems, as a result of the changes of living and working conditions, changes in consumer's behaviour, etc. Romania is facing today major health problems of people and especially health care. That is why the details become essential, details such as knowledge of the basic health of the Romanians, in parallel with those of citizens of other union's countries.

Revelling major differences that appear between the health of the population in Romania as compared with other European countries should lead to measures that would reduce these inequalities over time.

In order to have an overview of these cases we use several indicators of health that are relevant to characterize health, namely:

- life duration or longevity;
- overall mortality, in some medical cases and various age groups;
- morbidity on main medical cases and risk factors;
- health care costs that are allocated.

Each of these indicators has a special significance for characterizing health state and for substantiating health policies, while still allowing them a good coverage, that in its turn it will facilitate international comparisons. It should be noted however that certain limitations obliges us to be cautious in interpreting the results, but it manages to highlight the size of the existing gaps between EU member countries. Currently, efforts are being made at the level of WHO, EUROSAT, the OECD for establishing some comparable indicators estimated on the basis of harmonized methodologies because the currently used indicators in this area have partial coverage, which varies from one country to another.

For this paper we used data sources: WHO, Eurosat, INS and Ms Maria Poenaru's paper on population's health in Romania, in the context of adhering to the European Union. The analysis was focused on the conventional indicators already mentioned plus the two estimated indicators of the WHO can define levels and gaps in public health for all members of the organization:

- Healthy life expectancy HALE
- Disability-adjusted life-years DALYs

Demographic profile of the EU today has reached the final stage of demographic transition, which is characterized by low fertility and by a rise of the aging process now and especially in the future, according to UN projections and Eurosat. This leads to a need to ensure the health of an aging populations and the structure of age pyramid shows that groups of young people are becoming smaller compared to groups of older people.

In this context, Romania, which had 21.7 million inhabitants in 2003 (occupying the 7the rank between EU countries, with a population share of 4.6% of total EU 68

population), has features in common with most of EU countries, but also certain peculiarities of great importance in assessing state of health and care needs.

The similarities with Western are related to increasing the share of older population and decreasing the younger population, with a drop of fertility rate, this situation has a tendency to increase in the near future.

The differences in the demographic profile appear when it can be noticed a decrease in the total population of Romania from 23.2 million inhabitants on 01.07.1999 to 21.7 million in 2003. This tendency of decreasing the total population was recorded in most countries in "transition". It must be mentioned that the Romania's particularity on a large share of rural population of 45.5% in 2003, which places us in second rank in this area after Slovenia, which has a share of the rural population of 48.2%. Next, a third represented element, namely the ethnic structure, where we have the gypsies' ethny, which had at the 2002 census 535,000 members (2.5%), which had private social and demographic issues. It should also be noted the migration phenomenon after 1990, that has trained, in particular, the population capable of working relatively of young age, when a significant number of Romanian citizens were gone to work in EU countries, mainly in Spain and Italy.

Economically speaking, Romania faces, for a longer time, several issues that affect directly and indirectly the health of the population; they are resulted primarily from the level of economic development as follows:

- the gap of development reflected in the level of GDP per capita (in 2001 the amount was \$ 5900 PPS over \$ 2320 PPS in the EU) and it continues to increase, meaning that Romania faces major constraints on resources that can be allocated through development (here including the improvement of living conditions and health care of the population);
- concerning the structure of employment it can be noticed a difference between Romania and the European Union countries, by the fact that unlike the EU countries, a large share of the population works in agriculture
- about 35% (dominated by practicing a subsiding agriculture, out of which the population gets low income) compared with 5-10% in the Western countries;
- it is important to note also the massive loss of jobs in the industrial sectors (mining and construction machinery etc.) after 1990, which lead to a

decrease in revenue and worsening living conditions for many segments of the population.

Life expectancy (at birth or at certain ages) is a social synthetic indicator, which provides the image of the existing differences between citizens of countries from the point of view of living standards; it expresses the effects of economic development on longevity and quality of life. It increased for all citizens of European countries over the past 40 years; throughout the western countries it has increased from 67.4 years to 75.5 years (8 years) for men and from 72.9 years to 81.6 years (9 years) for women. In Romania, for the same period, the growth is lower, with only four years in men's case and about seven years for women. If you look back we see that this gap has increased because the difference in minus at 1960 was 3 years for men and five years for women.

In the year 2005 for Romanian citizens, life expectancy at birth was 68 years for men and 76 years for women (according to WHO) putting us on the whole EU on last place in women and a four (the result of classification), while the EU it is between 65 and 78 years for men and between 75 and 83 years for women.

Life expectancy in good health (healthy life expectancy - HALLE) is a synthetic method for health assessment that combines information on mortality and the implications of illness that do not lead to death, offering more opportunities for comparative analysis of the populations' state in several countries, referring to the main causes of disease, that is to the risks that determine illnesses.

 $\label{eq:Table 1} \textbf{Table 1} \\ \textbf{Indicators of health in the EU countries for 2002} \ ^1$

	Both sexes		Mas	culine	Fem	inine	DALYs		
	LEX	HALE	LEX	HALE	LEX	HALE	Masc.	Fem.	
Austria	79.4	74.4	76.4	69.3	82.2	73.5	7.1	8.6	
Belgium	78.4	71.1	75.2	68.9	81.5	73.3	6.3	8.2	
Denmark	77.2	69.8	74.8	68.6	79.5	71.1	6.3	8.4	
Finland	78.2	71.1	74.8	6.7	81.5	75.5	6.1	8.0	
France	79.8	72.0	76.0	69.3	83.6	74.7	6.7	8.8	
Germany	78.7	71.8	75.6	69.6	81.6	74.0	5.9	7.6	
Greece	78.4	71.0	75.8	69.1	81.1	72.9	6.7	8.9	

¹ World Health Report 2004, p 113 –119 and 132 – 135.

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Ireland	77.1	69.8	74.4	68.1	79.8	71.5	6.3	8.2
Italy	79.7	72.7	76.8	70.7	82.5	74.7	6.0	7.8
Luxembu	78.8	71.5	75.7	69.3	81.7	73.7	6.4	8.0
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Holland	78.6	71.2	76.0	69.7	81.1	72.6	6.3	8.5
Portugal	77.1	69.2	73.6	66.7	80.5	71.7	6.9	8.8
Spain	79.6	72.6	76.1	69.9	83.0	75.3	6.2	7.7
Sweden	80.4	73.3	78.0	71.9	82.6	74.8	6.2	7.9
UK	78.2	70.6	75.8	69.1	80.5	72.1	6.7	8.4
Czech	75.8	68.4	72.4	65.9	79.0	70.9	6.6	8.1
Republic								
Cyprus	77.3	67.6	75.5	66.7	79.1	68.5	8.8	10.6
Estonia	71.1	64.1	65.1	59.2	77.1	69.0	6.0	8.1
Latvia	70.3	62.8	64.6	58.0	75.8	67.5	6.6	8.3
Lithuani	71.9	63.3	66.2	58.9	76.6	67.7	7.2	9.0
a								
Malta	78.7	71.4	76.1	69.9	81.2	72.9	6.2	8.3
Poland	74.7	65.8	70.6	63.1	78.7	68.5	7.5	10.2
Slovakia	74.0	66.2	69.8	63.0	78.3	69.4	6.7	8.9
Slovenia	76.7	69.5	72.8	66.6	80.5	72.3	6.1	8.2
Hungary	72.6	64.9	68.4	61.5	76.8	68.2	6.8	8.6
Bulgaria	72.2	64.8	68.8	62.6	75.6	67.1	6.2	8.5
Romania	71.4	63.1	68.0	61.0	75.0	65.2	7.0	9.7
Turkey	70.0	62.0	67.9	61.2	72.2	62.8	6.7	9.3

Note: *LEX* = *life expectancy at birth (standard);*

HALE= life expectancy at birth in good health;

 $DALYs = years \ of \ life \ estimated \ to \ be \ lived \ in \ a \ poor \ state \ of \ health \ (HALLE + DALYs = LEX)$

From the above table we may notice that the life expectancy at birth in Romania is approximately equal or even less than HALE estimated for western countries, both for men and women.

Mortality. This indicator is one of the best starting points in order to understand the differences and disparities in the domain of citizens' state of health. It is emphasized in the following table.

These aggregate indicators show that the male is more vulnerable everywhere and the deaths among children in Romania have remained an important problem to solve, comparing with the good results obtained by most countries in the region. Thus, we have some of the highest rates on general mortality, infant mortality (considered to be overly large), mortality among adults, mortality rates among older people; this makes us among the countries with the worst situation in the region (together with Bulgaria, the Baltic Countries and Turkey).

 $\label{eq:Table 2} Table \ 2$ The most important indicators related to mortality, depending on the country $^{\!\scriptscriptstyle 1}$

		Child	lren's	A dulta	' rate of	The mortality		
		mortalit	y rate , at		y 15 – 59	rate for people		
	Mortality rate per 100000 overall	100 children born		1	d at 1000	over 65 at		
		ali	ve	years or	u at 1000	100000		
		Under 1	0 - 4					
		years	years	Masculine	Feminine	Year	Rate	
		old	old			1 0 11 1	Mate	
		(2000)	(2003)					
Austria	969	4.8	6	115	59	2001	4089	
Belgium	1000	4.8	5	125	66	1996	4696	
Denmark	1073	5.3	5	121	73	1999	5042	
Finland	932	3.8	4	134	57	2001	4360	
France	834	4.6	5	132	59	1999	3872	
Germany	989	4.4	5	115	59	1999	4495	
Greece	1039	6.1	6	118	48	1999	4428	
Ireland	799	5.9	6	100	60	2000	5297	
Italy	995	4.5	5	93	47	1999	4100	
Luxemburg	762	5.1	4	115	63	2001	4294	
Holland	967	5.1	6	93	66	2000	4666	
Portugal	938	5.5	6	150	63	2000	5469	

¹ World Health Organization, Atlas of health in Europe, 2004, p 31.

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Spain	968	3.9	5	116	46	1998	4276
Sweden	1027	3.4	4	79	50	1999	4243
UK	1015	5.6	6	103	64	2000	4580
Czech	1008	4.1	5	166	74	2001	5677
Republic							
Cyprus	941	7.1	5	99	47		
Estonia	1315	8.8	8	319	114	2001	9514
Latvia	1436	11.6	13	306	120	2001	6067
Lithuania	1118	8.6	9	302	106	2001	5589
Malta	754	5.8	6	84	49	2001	4762
Poland	911	8.0	8	202	81	2000	5640
Slovakia	923	8.5	8	204	77	2000	6070
Slovenia	916	5.0	5	165	69	2001	4850
Hungary	1231	9.4	9	257	111	2001	5906
Bulgaria	1340	13.6	15	216	91	2001	6810
Romania	1240	18.6	20	239	107	2001	6883
Turkey	621	36.0	39	176	111		

The main causes of death in the EU are generated, mainly by the five major groups of medical causes. They are presented in Table 3.

There is maximum share held by Romania (93.9%) and Czech Republic (93.3%) compared with the minimum share of Portugal (68%). For our country, but also for the rest of European countries, the circulatory diseases and cancer are responsible for over three quarters of all deaths. High rates of death caused by diseases of the circulatory, digestive and respiratory system are the consequences of the living conditions and health care of the old regime which unfortunately continued in the 1990. This pattern of mortality places us closer to the model of mortality specific to poor countries. To these cases we also add some medical cases specific to the modern age, namely cancer (see Table 4).

 $\label{eq:mortality} Table~3$ Mortality rates standardized on the first five groups of medical causes in the EU $(2001)^1$

Country	Mortality rate, number of deaths per 100,000						% total share					
	Total causes	Diseases for circulatory system	Cancer	Diseases for respiratory system	Accidents, poisonings	Diseases for digestive system	Diseases for circulatory system	Cancer	Diseases for respiratory system	Accidents, poisonings	Diseases for digestive system	Total A -E
Austria	633	298	16	31	45	32	47.1	26.7	4.9	7.1	5.1	90.8
Belgium	720	246	207	69	54	33	34.2	28.8	9.6	7.5	4.6	84.6
Denmark	788	266	245	72	52	41	33.8	31.1	9.1	6.6	5.2	85.8
Finland	677	276	150	50	71	30	40.8	22.2	7.4	10.5	4.4	85.2
France	314	167	187	36	56	29	27.2	30.5	5.9	9.1	4.7	77.4
Germany	658	286	177	36	34	36	43.5	26.9	5.5	5.2	5.5	86.5
Greece	640	303	162	41	37	16	47.3	25.3	6.4	5.8	2.5	87.3
Ireland	750	290	199	106	42	27	38.7	26.5	11.1	5.6	3.6	88.5
Italy	576	222	178	38	34	27	38.5	30.9	6.6	5.9	4.7	86.6
Luxemburg	667	249	176	49	60	38	37.3	26.4	7.3	9.0	5.7	85.8
Holland	692	234	198	67	29	26	33.8	28.6	9.7	4.2	3.8	80.1
Portugal	828	264	162	59	44	34	31.9	19.6	7.1	5.3	4.1	68.0
Spain	611	191	171	56	34	32	33.1	28.0	9.2	5.6	5.2	79.2
Sweden	605	249	158	35	41	20	41.2	26.1	5.8	6.8	3.3	83.1
UK	691	257	191	78	28	33	37.2	27.6	11.3	4.1	4.8	84.9
Czech	884	460	234	38	61	37	52.0	26.5	4.3	6.9	4.2	93.9
Republic Malta	669	288	162	68	32	21	43.0	24.2	10.2	4.8	3.1	85.4
Poland	941	432	216	39	63	37	45.9	23.0	4.1	6.7	3.9	83.6
Slovakia	990	539	222	52	56	50	54.4	22.4	5.3	5.7	5.1	92.8
Slovakia	799	298	205	55	71	56	37.3	25.7	6.9	8.9	70	85.7
Hungary	1036	503	266	34	81	82	48.6	25.7	3.3	7.8	7.9	93.2
Bulgaria	1106	710	152	39	50	30	64.2	13.7	3.5	4.5	2.7	88.7
Romania	1008	663	175	63	63	67	60.4	15.7	5.7	5.7	6.1	93.9

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¹ MS / CSSDM, Anuarul de statistica sanitara 2003, p. 314 –319.

 $\begin{tabular}{ll} Table 4 \\ Deaths in Romania in 2002 (caused by the first 10 diseases)^1 \\ \end{tabular}$

Total causes	258675	100.0
1. Ischemic diseases of the heart	60718	23.5
2. Cerebral-vascular diseases	52272	20.2
3. Hypertension	16858	6.5
4. Cirrhosis of the liver	10996	4.3
5. Cancer to trachea, bronchia and lungs	8904	3.4
6. Infections of the inferior respiratory system	6367	2.5
7. Pulmonary obstructive diseases	5743	2.2
8. Cancer to colon and rectum	4612	1.8
9. Stomach Cancer	4394	1.7
10. Brest cancer	3392	1.3

It may be noticed the unwanted "performance" of Romania in the wide spread of contagious diseases specific to poverty such as tuberculosis, hepatitis B, HIV / AIDS, which ranks first in the case of tuberculosis and syphilis; in the case of hepatitis B it ranks 3ed place on all the EU countries.

Risk factors that may be prevented - in accordance with information provided by the WHO for the European Region there are seven risk factors: blood pressure, smoking, alcohol consumption, high cholesterol, high body weight, low consumption of fruit and vegetables and a lack of physical activity. These risk factors are part of the kind that can be prevented through education of the population carried out both at the level of the individual and (especially) at the level of the entire population by encouraging healthy behaviour on smoking, alcohol consumption, diet food, unprotected sex. There are sequential actions necessary to ensure a healthy lifestyle through empowerment the decisional factors, at a local and national level. Note that the range of risk factors that affects the health of EU countries is the same for all.

Expenditure on health. The size of resources allocated to health system and the effectiveness with which they are spent, determines the level of health of the population. In most countries the financing of health insurance is done on two ways:

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¹ MS / CSSDM, Anuarul de statistica sanitara 2003, p 314 –319.

public and private sources of funding, with differences from one country to another (the differences come from the degree of involvement more or less of the financing private resources). For Romania, the total public and private expenditure in the year 2002 was estimated at \$ 469 PPP (purchasing power parity) = \$ 85 at the exchange. At this level we rank the 27th place of 28 countries for reference, being on the top Germany, France, Holland, Belgium etc., countries that have a level 5-6 times higher. This may be motivated by:

- percentage of GDP allocated to health;
- level of development (Romania having the lowest level of GDP of all EU countries, except Bulgaria and Turkey, most of the other countries having a level 3-4 times higher).

The volume of public health expenditure is in accordance with WHO estimations of 70-85% of total health expenditure for most European countries. For Romania, and that when the private costs are made directly from the personal pocket and not as in western countries where the private costs are made by the institutions of private health insurance, this percentage is 66%, for 2002 only \$ 309 PPP = \$ 56 to exchange rate, representing a share of GDP /habitant of 4.1% (about seven times lower than in Germany). The fact that Romania allocates to health such low level of resources explains the precarious health of the population in Romania compared with citizens of other countries (see Table. 5). Private spending on health is composed of the sum of the following: private health insurance, companies offering medical or pharmaceutical services, non-profit insurance schemes, health expenditure covered by companies, non-profit institutions serving households; payments "from personal pocket" made of households.

Table 5
Expenditure on health in EU countries in 2002¹

Country	GDP per capita (PPP	Total Pu healt expendi	h	Public h expend		Total Shar expend	
	dollars)	per capita (PPP dollars)	% in GDP	per capita (PPP dollars)	% in PIB	Public Expenditure %	Private expenditure %
Austria	28843	2220	7.7	1551	5.4	69.9	30.1
Belgium	27752	2515	9.1	1790	6.5	71.2	28.8
Denmark	29227	2583	8.8	2142	7.3	82.9	17.1
Finland	26614	1943	7.3	1470	5.5	75.7	24.3
France	28094	2736	9.7	2080	7.4	76.0	24.0
Germany	25842	2817	10.9	2212	8.6	78.5	21.5
Greece	19041	1814	9.5	960	5.0	52.9	47.1
Ireland	32570	2367	7.3	1779	5.5	75.2	24.8
Italy	25569	2166	8.5	1639	6.4	75.6	24.4
Luxemburg	49228	3066	6.2	2620	5.3	85.4	14.6
Holland	28983	2564	8.8	1683	5.8	65.6	34.4
Portugal	18376	1702	9.3	1201	6.5	70.5	29.3
Spain	21253	1640	7.6	1170	5.4	71.3	28.7
Sweden	27271	2512	9.2	2144	7.9	85.3	14.7
UK	27959	2160	7.7	1801	6.4	83.4	16.6
Czech Republic	16020	1118	7.0	1022	6.4	91.4	8.6
Estonia	12692	883	7.0	364	2.9	41.3	58.7
Latvia	11836	604	5.1	461	3.9	76.3	23.7
Lithuania	9277	477	5.1	306	3.3	64.1	35.9
Estonia	9228	549	5.9	399	5.3	72.6	27.4
Malta	9984	962	9.6	691	6.9	71.7	28.3
Poland	10862	657	6.1	476	4.4	72.4	27.6
Slovakia	12257	723	5.9	646	5.3	89.4	10.6
Slovenia	18687	1547	8.3	1158	6.2	74.9	25.1
Hungary	13891	1078	7.8	757	5.4	70.2	29.8
Bulgaria	6738	499	7.4	267	4.0	53.4	46.6
Romania	7468	469	6.3	309	4.1	65.9	31.4
Turkey	6448	420	6.5	276	4.3	65.8	34.2

¹ WHOSIS, Country Health Indicators, 2004

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