

Romanian Health System: Lessons Still to Learn

Puiu Ionut Fătulescu¹

Abstract: Objective: Even if the Romanian Health System has registered some notable improvements over the last 20 years, this article aims to prove that it still has certain areas to reform in order to assure the right amount of healthcare a system should provide. Hypothesis: The hypothesis on which this article relies on is that the system is not yet characterised by results, competition, and efficiency. Methodology: To sustain the hypothesis, different socio-economic arguments have been brought. Also indicators for the European average and Romanian health system have been compared, to emphasize the current state-of-facts and time series of Romanian indicators have been analyzed in different contexts to extract a more objective result of changes in values. Results: Even though the Romanian Health System has known different types of reforms ever since the fall of the communism, the system still denotes a lack of success in providing proper healthcare for all its citizens.

Keywords: expenditures; efficiency; indicators

JEL Classification: I10; I18; I11

Introduction

The health sector has been a very important area of each state ever since the dawn of mankind, being exposed to perpetual modifications and adaptations imposed by medical discoveries, technological progress, social and economic changes, etc. Due to the actual socio-economic context of the European Union, even if each nation has the liberty of choosing its public health policies according to its national needs and traditions, the Union as a whole shares common values, with the final purpose of providing high quality services to all the members of the community.

In this article, the author will underline the importance of re-evaluating the indicators of the Romanian health system in order to align it with the European standards and to prepare the system for future challenges, mostly caused by changes of the social indicators (size of population, average life expectancy, aging population, etc.). To support this idea, a series of arguments will be brought: the first one will bring evidence of the existent discrepancies between the Romanian

¹PhD in progress, “Alexandru Ioan Cuza” University of Iasi, Address: Boulevard Carol I, No.11, Iasi, Romania, Tel:+40232201000, Fax:+40232201201, Corresponding author: puiufatulescu@yahoo.com.

health system and the European average, the second one will demonstrate the low degree of efficiency of the Romanian health system and the third one will prove the incapacity of the actual health system of preventing future socio-economic changes. The methods this article relies on are descriptive statistics, comparing data collected from the European Statistical Office on some of the most important health indicators with the values of the same Romanian indicators. Subsequent the introductory part, a short presentation of the Romanian health system will follow, succeeded by the third part, when the arguments mentioned in the previous paragraph will be discussed. The article will end with a section of conclusions and limitations.

Short Presentation of the Romanian Health System

The Romanian Health System (RHS) is regulated by the 145/1997 Law, with its later completions and stipulations, law which marks the abortion of the state financed model by the introduction of health social care, after the Bismark's model, introduced in Germany, at the end of the 19th century. However, RHS has, from many points of view, the same working mechanism from the years before the revolution and, even if the 95/2006 law had as objective the strengthening and clarification of the National Health Care House's (NHCH) responsibilities, later successive modifications transformed NHCH into a bureaucratic institution, subordinated to the Ministry of Public Health and the Ministry of Public Finances.

Regarding the health budget financing, the main source is the Unique Stock of Health Social Care, with over 70% of the total¹, along with other funds from the state budget, local budgets, external credits, own incomes, donations, sponsorships or non-reimbursable external funds. The Stock's constitution is made by mutual contribution employee (5.5% from the brut income) and employer (5.2% from the salaries stock) or 10.7% from their income for the freelancers who choose to be self-assured. The health budget for 2010 has raised up to 4%, compared to 3.17% in 2009, even though the public budget has had a contraction of 10% and the Vice Tax introduced in 2006 for enhancing health's budget, has been redistributed towards other sectors. This phenomenon can be ascribed to what Portafke (2010) asserts in his article, that governments tend to allocate a greater percentage of the GDP to health only in pre-elections years, while for common years, governments spend less for health. Furthermore, Stahl (2009) concludes in his article that health is not sufficiently recognized in the EU's policy process, proving that the maximum percentage of health-related topics in the studied reports has been 39% for health systems and 29% for human health.

¹ 75% in 2007.

RHS's Indicators are below the European Average

RHS presents major inefficiencies comparing to the European health systems. This phenomenon can be observed through a simple review of the main health indicators for the European average against the Romanian ones. Thus, analyzing the percentage of GDP allocated in 2008¹ for public health by the member states of the EU, it can be remarked that Romania holds the last place, having allocated only 4.7% of the GDP, slightly over half of the European average of 8.18% and with 0.6% behind the next state, Estonia. Also, when speaking about health expenses per capita, Romania is still holding the last place, the Romanian Government having spent only 441 USD/per capita, 7.19 times less than EU's average of 3169.462 USD/per capita and 19.48 times less than Luxembourg, the country with the highest health public expense per capita of 8592 USD. Furthermore, average life expectancy is another indicator that clearly emphasizes the differences between Romania and the EU average. Thus, in 2009², from the 25 countries, members of the EU who have published their data³, Romania was the 21st according to men's average life expectancy (69.83 years), being closer to the end of the classification (Lithuania – 67.51 years) than the European average (74.96 years). For women's average life expectancy, Romania was the last, with an average of 77.39 years, after being overtaken by Bulgaria, with an average of 77.4 years, having 4.19 years below the European average of 81.58 years. As a state of facts, both men and women indicators for Romania, have registered increases for the last 11 years, as it is shown in table 1. Analyzing the data from table 1, it can be observed that the 1999 existing 5.2 years difference between the average life expectancy of the Romanian women and the EU27 average decreased over the 11 years with only 1.1 years, thing that underlines the low efficiency of the RHS. This thing is also indicated by the average life expectancy of Romanian men compared to the European average over the time series, case in which, out of the 5.5 years difference between the two averages in 1999, Romania reduces the difference with only 0.6 years, to 4.9 years in 2009.

¹ <http://www.who.int/nha/country/rou/en/>

² <http://epp.eurostat.ec.europa.eu/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=tps00025&language=en>

³ At the writing date of the article Italy and the United Kingdom have not had the data published but, considering that for 2008, these countries' data was close to the European average, it is considered that the lack of information for 2009 cannot significantly affect the study.

Table 1. The evolution of Romanians' Life Expectancy between 1999 and 2008

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Romania-Women	74.2	74.8	74.9	74.7	75	75.5	75.7	76.2	76.9	77.22	77.39
Romania-Men	67.1	67.7	67.5	67.4	67.7	68.2	68.7	69.2	69.7	69.71	69.83
EU27-Women	79.4	79.6	80	79.9	79.9	80.5	80.5	81	81.1	82.37	81.3
UE27- Men	72.6	73	73.3	73.1	73.3	73.8	74	74.4	74.5	76.37	74.6

Source: Eurostat, Public Health Tables, Health's Structural Indicators.

Another indicator, very important for the analysis, is the infantile mortality rates. Thus, even though Romania has the greatest percentage of the entire Union, 11‰ in 2008 and 10 ‰ in 2009¹, and one percentage point behind the next state, Bulgaria (9‰ in 2009), the values of the indicator have decreased with more than 50% comparing to 1998 (20.5‰) and so did the discrepancies compared to the European average, Romania being with 5.8‰ above the European average, compared with 12.5‰ in 1998.

The evident differences between RHS and the average of the EU emphasize the need of setting up certain programs to ensure both short and long-term improvements in the values of the main indicators, and to continue the substantial improvements made towards aligning with the European average, improvements that are specific for developing countries (Jackson T. et al., 2007), even if the decisions of the European Union themselves don't seem to take into consideration the health systems (Clarke A. et al, 2007).

¹ <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&plugin=1&language=en&pcode=tps00027>

RHS Needs Improvement

The efficiency of a health system can be analyzed from many points of view. Either talking about the human factor, equipment, investments made in the health care system, main health indicators or the functioning of the system as a whole, Romania was facing in 2009 a series of problems in assuring a competitive and efficient health system. For example, examining the number of doctors and the number of signed contracts with the health services providers in the 2004-2009 period¹, it can be observed that, even though the number of doctors grew continuously, from 46936 in 2006 to 50415 in 2009², the number of signed contracts registered a very weak fluctuation, ending the period at a lower point than the start year, from 1328 in 2004 to 1314 in 2009. According to the available data, even though at a first view the increase in the number of doctors can be regarded as an increase of efficiency of the system, a more detailed analysis would show the negative impact of the increase transmuted into a pressure on the health budget, due to the small and almost constant percentage distributed from the state budget, given the fact that RHS is still preponderant public and the medical staff salaries are paid from the allocated budget. In other words, for a real increase of the efficiency, the allocated budget should have increased as well, to sustain both public expenses for health care and salaries, not to transfer funds towards doctor's incomes, leaving the system without available resources for pharmaceuticals, equipment and other important expenses. Also, the almost inexistent fluctuation of the number of signed contracts with different clinical services providers denotes the weak capacity to attract investments, fact that also affects the efficiency of the system.

RHS reflects low efficiency from the equipment point of view too, the number of ambulances having diminished with 25.85% from 1990 to 2008³, the number of public hospitals with 2.57% in the 2000-2008, from 439 to 425, but the most obvious changes have taken place for the polyclinics, who registered a 291.3% decrease in only eight years, from 90 in 2000 to 23 in 2008. Nevertheless, the total of hospital beds reduced with 49.8% from 1990 to 2008, fact that underlines, apart from the inefficiency of the system, its incapacity to properly use the resources, especially under the aging population circumstances. If to the previous information it is added the random distribution and consumption of resources between regions, the necessity of reforming the system becomes obvious.

To hallmark the importance of revising the system as a result of the low level of efficiency some additional health indicators will be provided. For example, if for some diseases, like food poisoning, the number of new cases remained

¹ National Health Care House, (2010). Activity Report on 2009.

² Romanian National Institute of Statistics, Romania in cifre, 2010.

³ Romanian National Institute of Statistics, 2009 Yearbook, Chapter 7- Health

approximately constant or registered small increases, from 8.2 new cases in 1990 to 8.3 new cases in 2008, for others the figures changed considerably, like for tuberculosis, whose number of new cases has grown from 64.6 new cases at the beginning of the period to 87.3 new cases at the end of it. A worrying modification over the period has been recorded by the endocrine, nutrition and metabolism diseases, which have increased 6.69 times between 1992 and 2008, from 86 to 575 new cases.

RHS is Inapt to Prevent Future Socio-Economical Changes

For a system to be considered efficient, its capacity to adapt to continuous socio-economical changes must be analyzed. Looking at 2011 facts from this point of view, RHS appears to be rigid, proving to be unprepared for future known demographic changes and even less prepared for unpredictable changes, indifferent of their nature. For example, even if in 2010 there were 17.46 million assured, only 6.73 million of them were contributing to the health care fund, while the rest were exempted on different grounds, with most of the tax-payers in the 20-45 years age segment on July 1st 2009. Also, it is worth mentioning that Romania has been having a negative fertility ever since the 1989 Revolution, when the abortion law passed in the Parliament. However for those who were born in year after the abortion has been forbidden, health expenditures will increase considerably as they pass the 65 years point (Payne G. et al., 2007).

The effect of the aging population will be an additional pressure on the health budget, the moment those who were at the 40 years level in 2009 will move towards the upper limit of Romania's age pyramid, needing medical services, pressure even greater given the fact that human resources effectives will diminish as a consequence of the negative fertility and the number of doctors as a consequence¹. However, given the fact self-assessed health status tends to improve as the unemployment rate decreases (Ahs A. Et al., 2005), under the caeteris paribus clause, a decrease of the population will lead to an improvement of the self-assessed health status.

Another threat for the RHS will be the lack of specialized medical staff, caused on one hand by the retirement of most doctors, meaning those doctors who, in 2008 were contained in the 40-45 years segment, containing the biggest effective of population and by the high rate of emigration of the medical staff on the other hand.

¹ Romanian National Institute of Statistics, *2010 Romania in numbers*.

Conclusions, Recommendations, Limitations

This essay pointed out some of the deficiencies of the current RHS. The 2009 stage public policies hardens and burdens the functioning of the health system, both by bureaucracy and inconsistency in adopted laws and decisions. In the first part of the paper has been underlined that the health budget has been diminish for two consecutive years, even though the allocated percentage has already been below the European average, and below the aimed percentage. Future public policies should be based on national and regional macro-economic indicators to assure a higher efficiency of the system and the reduction of the existing discrepancies between Romania and the others EU members. Future laws could be an inspired from the American Health system, as Clarke et al. (2010) emphasize in their article which concludes that for an enhanced efficiency, European systems should adapt the American methods. Also, it has been proved that an increase in the total health expenditure growth rate of 1% leads to 0.06%-0.1% increase of the GDP per capita, most of the effect being produced by the public expenditure (Beraldo S. et al., 2009) thing that would mean that, besides diminishing the existing difference between allocated percentages in Romania and the European average, the Romanian economy would register an overall increase. Also, a proper percentage of GDP would allow bigger salaries for doctors and medical staff, thing that would diminish the informal payment, typical for all Balkan countries (Brendenkamp C. et al, 2010), (Tambor M. et al., 2010) and would permit a cash flow meant for making the healthcare system both a better provider and purchaser of information systems, improvement that needs to be done (Ingram D. Et al., 2006). Another aspect of the problem that should not be neglected is that health care expenditures are direct correlated with self-assessed health status, an increase in allocated percentage of the GDP leading to an improvement of the self-assessed health status (Rivera B. 2001).

Furthermore, the second part of the article presents the failure of the existing laws, demonstrating that the system needs to be completely re-evaluated. As an example, the redistribution of the Vice-Tax towards other sectors affected significantly the health budget, an effect that has tried to compensate by the introduction of the “Clawback” system, which assumes that the pharmaceutical producers must pay 10%-11% from their incomes for the health budget, but who threatens to drive away the possible or existing producers. Nevertheless, building hospitals without allocating special funds to supply the needed equipment reduces dramatically the output of the investments and also blocks important sums in unusable buildings. Also it should be continued to reform the system towards an ambulatory system, especially that home-treatment has been proven to be useful for old people, reducing the deficiencies of the activities of daily life. (Meng H. et al., 2009)

especially that an improvement of 20.7% in the number of pharmacists has been registered during the last years¹, from 9932 in 2006 to 11988 in 2009.

The third argument brought to sustain the idea, came as a completion for the first two, proving the necessity to reform the medical system in order to prevent the changes of the socio-economic factors and to attenuate or prevent the impact of any unforeseen factor. Aging population, negative growth, are indicators who will exert a great pressure on the health budget in the absence of a solid legal frame, designed to equilibrate the assured-payer balance, especially that, with the increase of life expectancy, the period of morbidity enhances and the out-of pocket health expenditures also increase (Schoenberg N. et al., 2007). In other words, the government has to be prepared for future growing expenses, given the fact that health care expenses increase with closeness to death, aging being the main reason for higher long-term care expenditures (Yang et al., 2003), (Seshamani et al., 2004) and worse self-assessed health status (Rivera B., 2001), otherwise risking to lose patients against the private sector when the public system is under financed, which undermines the guaranteed free access to health services (Siskou et al., 2008). Furthermore, the RHS should consider that each country has a specific in researching areas depending on socio-economical factors (McCarthy M. Et al., 2007), and it should stimulate and focus on those areas of national interest, like the countries' best medical practices or worst maladies, bearing in mind that there is very difficult to compare national research on health systems given the fact that they combine different types of provision and financing (Gerdtam et al., 1992). Also, studies showed that the development of new technologies add up to 2% to the percentage of allocated GDP percentage (Rabinovich M. et al., 2007), another important aspect.

It is obvious that the article has met its objective to underline the need of re-evaluating health public policies to ensure its competitiveness at international level and an efficient and qualitative at national level. Also, an objective description of the RHS has been made, pointing out the current most important areas of that need improvement. Possible critiques for the articles may come from the lack to provide exact data about the RHS needs. Thus, if indicators like the salaries of nurses or doctors are illustrative without being correlated with others, some specific factors like the number of hospital beds would be clearer if a needed number of beds would be known. Also, even though the natural growth, although unfavourable when the 0-20 years segment at 1st of July 2007 will have entered on the labour market, because the small number of persons will mean a smaller budget, on short term can be considered a positive aspect as pupils and students are exonerated from paying health care contribution.

¹ Romanian National Institute of Statistics, Romania in cifre, 2010.

Acknowledgments

This work was supported by the the **European Social Fund in Romania**, under the responsibility of the Managing Authority for the Sectoral Operational Programme for **Human Resources Development 2007-2013** [grant POSDRU/CPP 107/DMI 1.5/S/78342]

References

- Ahs, A. & Westerling, R. (2005). Self-rated health in relation to employment status during periods of high and of low levels of unemployment. *European Journal of Public Health, 2005, Vol. 16, No. 3, 294–304.*
- Beraldo, S.; Montolio, D. & Turati, G. (2009). Healthy, educated and wealthy: A primer on the impact of public and private welfare expenditures on economic growth. *The Journal of Socio-Economics 38 (2009) 946–956.*
- Bredenkamp, C.; Mendola, M. & Gragnolati, M. (2010). Catastrophic and impoverishing effects of health expenditure: new evidence from the Western Balkans. *Health Policy and Planning 2010;1–8*
- Clarke, A. & Cohen, B. (2010). Bringing it all back home: can Europeans learn from recent moves toward the medical home in US primary health care reform? *European Journal of Public Health, Vol. 20, No. 6, (2010) 613–615.*
- Clarke, A.; Gatineau, M.; Grimaud, O.; Royer-Devaux, S. & Roberts, N. W., Le Bis, I., Lewison, G. (2009). A bibliometric overview of public health research in Europe. *European Journal of Public Health, Vol. 17, Supplement 1, 2007.*
- Eurostat. Infant Mortality, 1998 – 2009, available at <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&plugin=1&language=en&pcode=tps00027>.
- Eurostat. Life expectancy at birth, 1998 – 2009, available at <http://epp.eurostat.ec.europa.eu/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=tps00025&language=en>.
- Gerdtham, U.G.; Sogaard, J.; Andersson, F. & Jonsson, B. (1992). An Econometric Analysis of Health Care Expenditure: A Cross-Section Study of the OECD Countries. *Journal of Health Economics 11(1): 63– 84.*
- Ingram, D.; Kalra, D.; Austin, T. Darlison, M.; Modell, B. & Patterson, D. (2006). Towards an interoperable healthcare information infrastructure — working from the bottom up. *BT Technology Journal • Vol 24 No 3 • July 2006.*
- Jackson, T. P., Mills, A. (2007). A review of health resource tracking in developing countries. *Health Policy and Planning 2007; 22:353–362.*
- McCarthy M. (2007). European public health research literatures - measuring progress. *European Journal of Public Health, Vol. 17, Supplement 1, 2007.*
- Meng, H.; Wamsley, B.; Liebel, D. RN.; Dixon, D. & Eggert, G.; Nostrand, J.V. (2009). Urban – Rural Differences in the Effect of a Medicare Health Promotion and Disease Self Management Program on Physical Function and Health Care Expenditures. *The Gerontologist Vol. 49, No. 3, 407–417.*
- National Health Care House (2010). Activity Report on 2009.

- National Health Care House (2009). Medical Assistance Report, 3rd trimester of 2009.
- Payne G.; Laporte A.; Deber R. & Coyte, P. (2007). Counting Backward to Health Care's Future: Using Time-to-Death Modeling to Identify Changes in End-of-Life Morbidity and the Impact of Aging on Health Care Expenditures. *The Milbank Quarterly*, Vol. 85, No. 2, 2007 (pp. 213–257).
- Potrafke, N. (2010). The growth of public health expenditures in OECD countries: Do government ideology and electoral motives matter? *J. Health Econ.* (2010), doi:10.1016/j.jhealeco.2010.07.008.
- Rabinovich, M.; Wood, F., Shemer, J.(2007). Impact of new medical technologies on health expenditures in Israel 2000–07. *International Journal of Technology Assessment in Health Care*, 23:4 (2007), 443–448.
- Rivera, B. (2010). The effects of public health spending on self-assessed health status: an ordered probit model. *Applied Economics*, 33: 10, 1313 — 1319.
- Romanian Association of International Pharmaceutical Producers, (2009). Public Statement.
- Romanian National Institute of Statistics, 2009 Yearbook, Chapter 2- Demographics.
- Romanian National Institute of Statistics, 2009 Yearbook, Chapter 7- Health.
- Romanian National Institute of Statistics, 2010 Romania in numbers.
- Schoenberg, N. E.; Kim, H.; Edwards, W. & Fleming, S. T. (2007). Burden of Common Multiple Morbidity Constellations on Out-of-Pocket Medical Expenditures among Older Adults. *The Gerontologist*, Vol. 47, No. 4, 423–437.
- Seshamani, M. & Gray, A. (2004). Time to death and health expenditure: an improved model for the impact of demographic change on health care costs. *Age and Ageing*, 2004, Vol. 33, No. 6, 556-561.
- Siskou, O.; Kaitelidou, D.; Papakonstantinou, V. & Liaropoulos, L. (2008). Private health expenditure in the Greek health care system: Where truth ends and the myth begins. *Health Policy* 88 (2008) 282–293.
- Stahl, T. P. (2009). Is health recognized in the EU's policy process? An analysis of the European Commission's impact assessments. *European Journal of Public Health*, 2009, Vol. 20, No. 2, 176–181.
- Tambor, M.; Pavlova, M.; Woch, P. & Groot, W. (2010). Diversity and dynamics of patient cost-sharing for physicians' and hospital services in the 27 European Union countries. *The European Journal of Public Health Advance Access published September 30, 2010*.
- The Presidential Commission Report for the analysis and elaboration of public health policies in Romania, 2008.
- WHO. Approaching health financing policy in the WHO European Region. Copenhagen: WHO-Europe, 2006.
- WHO, National Health Accounts, available at <http://www.who.int/nha/country/rou/en/>.
- Yang, Z.; Norton, E. C. & Stearns, S. C. (2003). Longevity and Health Care Expenditures: The Real Reasons Older People Spend More. *Journal of Gerontology: Social Sciences*, 2003, Vol. 58B, No. 1, S2-S10.