

UNDER- FUNDING OF THE HEALTH SECTOR AND ITS EFFECTS. ROMANIA IN EUROPEAN CONTEXT

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Abstract. *The financing of health is a topic of general interest, from each of us, who contribute to the financing of this sector, through the compulsory payment of health insurance, to the most developed states, which face difficulties in financially supporting the care of the state population health. The effects of the under-funding of the health sector are manifold. Political and economic instability contributed to a low percentage of GDP allocated to health, among the lowest of the EU member states. When we talk about the under-funding of the health sector in Romania, we refer to the percentage of GDP allocated to this sector comparing, from this point of view, the member states of the U.E. Under-funding is not the only problem facing our country in this segment, but, together with the inefficient management of the existing financial resources, represent the main difficulties of the Romanian healthcare system. The insufficient financial resources for the health care of the population of Romania are reflected on the state of health, generating effects with an impact on the national economy. The present study aims to analyze the main effects of the under-financing of the health sector, respectively (1) Direct payments or "out of the patient's pocket", (2) The low number of medical professionals, (3) Inequalities in the coverage of the population with the basic health services, (4) Inequalities in accessing health services. The research methodology combines qualitative research, respectively the revision of the specialized literature, with the quantitative one; the data needed for the quantitative research were collected from official sources, respectively www.ec.europa.eu.*

Key words: *health sector, economy, underfunding effects, Romania*

JEL classification: A12, H51, I15, P43

INTRODUCTION

The financing of a health system refers to how the financial resources necessary for the activity of the sector are collected, as well as to how these funds are distributed and then used. The type of financing combined with the type of organization of the health system, determines the categories of people who have access to health care, the cost of these care, the productive efficiency and last but not least the quality of the services offered to the population. To finance any health system, it is necessary to collect the financial resources from the population to be able to contact the providers of medical services, to offer them later to the persons who have contributed. The main objective of the systems is to distribute the costs of the medical services between the people with diseases and the healthy persons, according to the resources of each one and according to the resources available to the state. The total health care expenses should be approximately equal to the population's contributions, given that not all persons contributing to the system need medical care. However, health care costs have increased in recent years at rates that exceed income growth, this difference is seen by many analysts and policymakers as a prominent problem for many nations. The causes arise, on the one hand, from the unhealthy lifestyle of some people and, on the other hand, from the lack of investment in prevention. The essential factor in this regard is represented by the low incomes at the national level, which do not allow the improvement of the lifestyle of each individual and also do not allow the investment in a quality health system and able to cover all the demands in this regard.

The effects of the under-financing of the health sector are manifold. Political and economic instability contributed to a low level of health financing, with Romania spending below a third of

the EU average, among the lowest level among the Member States. Also, the share of GDP dedicated to health is low and significantly below the EU average. However, public funding is the main source of income in the health field, and "out-of-pocket payments" or direct payments are the second sources of funding.

LITERATURE REVIEW

The financing of the health sector, respectively its efficiency, has proved to be an important topic since the 1970s when numerous researches began to emphasize the need for financial support for the health of the population. Among the authors who have studied the concept, as well as the importance of financing health services, from 1970 to 1990, are Kleiman (1974), Newhouse (1977, 1987), Culyer and Jonsson (1986), Donaldson and Dunlop (1986), Parkin et al. (1987), Culyer (1989), Milne and Molana (1991), Getzen and Poullier (1991), Gerdtham and Jonsson (1991), Hitiris and Posnett (1992), who demonstrated the existence of a positive correlation between the efficiency of public spending and health and population health, in most OECD countries; thus, an increased financing of this sector and the increase of its efficiency support the general health of the population. More recent research has also focused on assessing the importance of the correlation between the volume of public spending with health, the health of the population and the growth of GDP, respectively Murthy and Ukpolo (1994), Hansen and King (1996), Di Matteo and Di Matteo (1998), Di Matteo (2005), Gruen and Howarth (2005).

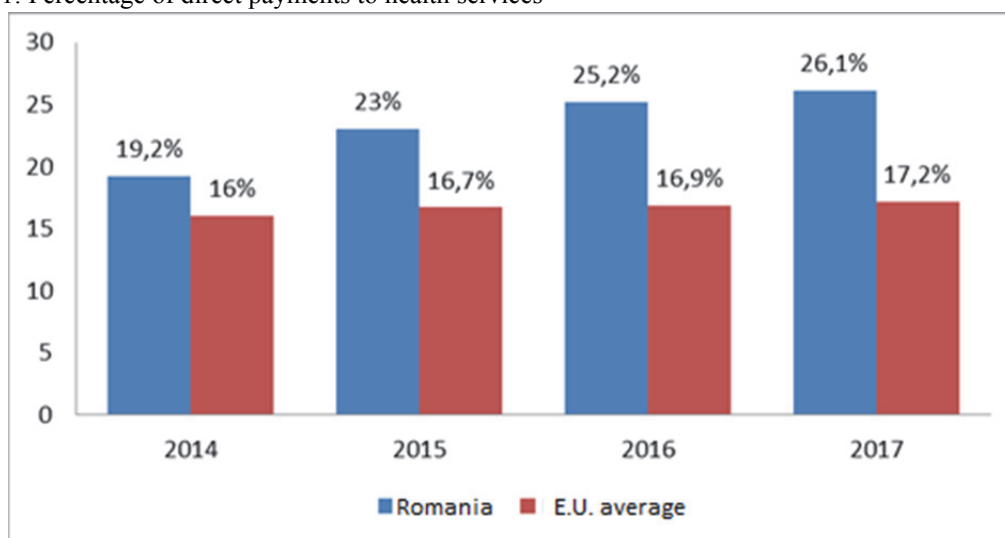
RESEARCH METHODOLOGY

The research methodology combines qualitative research with quantitative research; with the help of qualitative research, the specialized literature was revised, respectively the journals and books relevant to the field of interest of the present research. The quantitative research method was used to collect the data necessary for the analysis, respectively the percentage of direct payments to health services, the number of medical professionals existing in Romania, compared to the EU average, the evolution of the number of medical professionals in Romania, the degree of coverage of the population with health services. base, the percentage of people who did not visit a specialist doctor in 2017; the data needed for the quantitative analysis were collected from official sources, respectively www.ec.europa.eu, www.insse.ro, www.who.int.

DIRECT PAYMENTS OR "OUT OF THE PATIENT'S POCKET"

The "out of pocket" expenses represent a significant part of the total healthcare expenses and include direct payments and unofficial payments. Direct payments mean payments to private healthcare units or co-payment, existing in the health service system in Romania. Unofficial payments are considered to be widespread and substantial, but still difficult to estimate, preventing reliable calculations for evaluating the actual weight of private health spending. People with low incomes are the ones who pay the most for these services, in relation to their earnings. Cost accessibility is, according to numerous studies (Falkingham, 2004; Hotchkiss et al., 2005, Yelin, 2008; Corrieri et al., 2010; Hajizadeh and Nghiem, 2011; Poulsen, 2014), the main reason for accessing reduced healthcare services.

Fig. 1: Percentage of direct payments to health services



Source: author, based on OECD / European Union (2018), available at

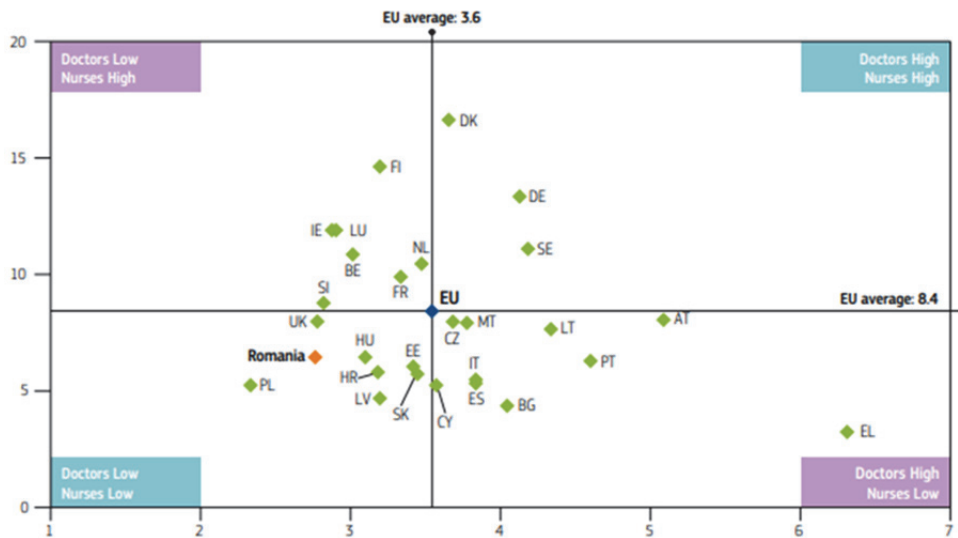
https://ec.europa.eu/health/sites/health/files/state/docs/2018_healthatglance_rep_en.pdf

Compared to the EU average, in Romania, direct payments to healthcare providers are increasing and constantly increasing. For 2017, the difference between Romania and the EU average is 8.9 percentage points (Figure no. 1), a significant and marked difference with the passage of years. If for the U.E. the difference in this regard between 2016 and 2017 is 0.3 percent, for Romania the difference means 0.9 percent, a significant increase.

LOW NUMBER OF HEALTHCARE PROFESSIONALS

Human resources generally decide to migrate temporarily or permanently to more economically developed countries, where they have the opportunity to evolve professionally in a developed environment and receive a salary remuneration as expected. Also, the migration takes place on the territory of the country, from the rural to the urban environment, a phenomenon that has grown in Romania, the rural environment facing an acute lack of medical staff. The phenomenon of migration has grown and is impossible to stop, but with the support of the authorities, there would be the possibility of diminishing it. Health workers directly improve the quality of life of the population, which can contribute to the economic prosperity of a country. The essential aspect that affects the countries in the crisis of medical professionals is that the health workers are different from the other skilled workers in that they keep people alive and ensure the well-being of communities and nations. The national economy, by sub-financing this sector, has a decisive role in the decision of human resources to leave the national system of health services. The human resources in the health services system are the key element in the development of a prosperous and balanced society, and the professional training and the maintenance of the medical professionals in this sector has direct effects on each member of the community.

Fig. 2: The number of healthcare professionals in Romania, compared to the EU average, 2016

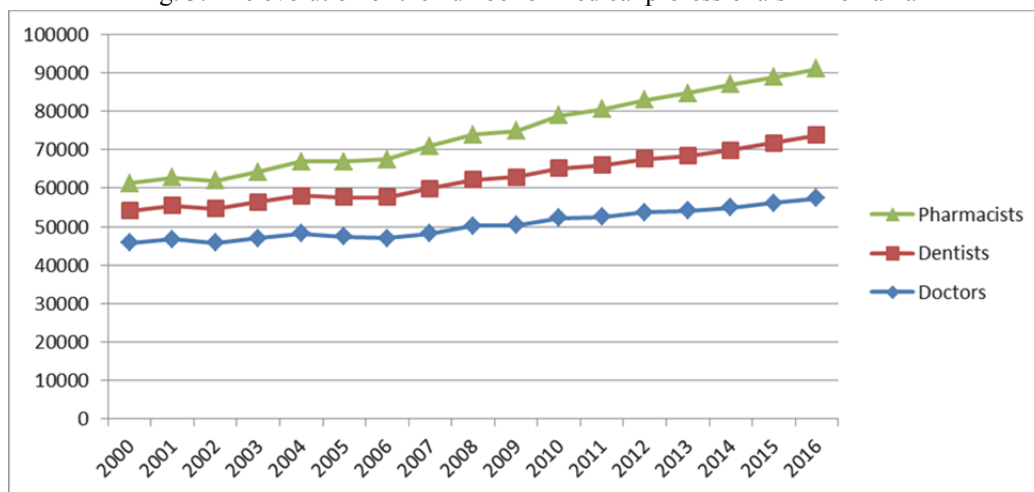


Source: author, based on data available at

https://ec.europa.eu/health/sites/health/files/state/docs/chp_romania_romanian.pdf

The number of doctors and nurses is relatively low compared to the EU averages: 2.8 doctors per 1000 inhabitants, compared to 3.5 in the US, and 6.4 nurses per 1000 inhabitants compared to 8.4 in the EU. (Figure no. 2). This is despite the steadily increasing number of medical school graduates and efforts to increase the number of medical graduates after the decline from 2010 to 2013. Two factors contributing to these low numbers, compared to needs population in Romania: high rates of health workers who have migrated in the last decade (and, in particular, after joining the EU in 2007) and the different level of remuneration in the public sector compared to the private sector. Based on the fact that an increasing number of medical professionals choose to practice in other countries, one of the most heated debates in the public space in Romania concerns the shortage of medical staff in hospitals. However, their number is still low compared to other EU member states. and with the needs of the population of our country.

Fig. 3: The evolution of the number of medical professionals in Romania



Source: author, based on data available at Insse (2006, 2009, 2017)

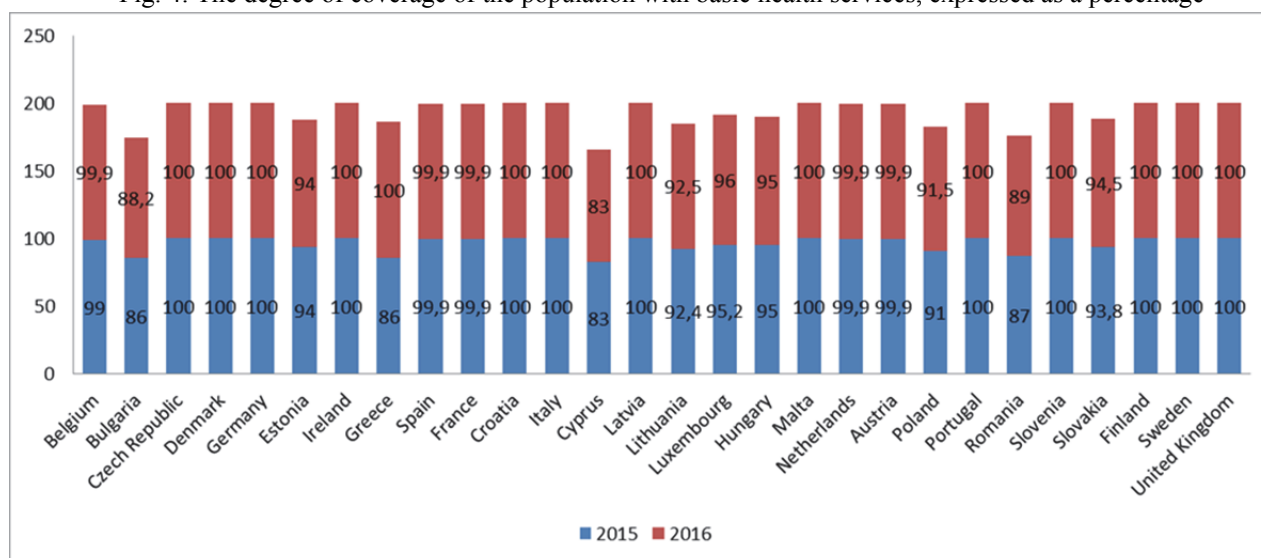
The number of doctors, dentists, and pharmacists in Romania has increased from 2000 to the present (Figure no. 3). It should be noted that this growth was not uniform across the developing

regions of the country, which accentuated the gap between developed and least developed regions, as well as between urban and rural areas, faithfully reflecting existing economic inequalities. For example, in 2000 there was a difference of 1,923 doctors between the North-West and South-Muntenia regions (5,882 doctors in the North-West region, compared to 3,959 doctors in the South-Muntenia region). In recent years, the difference has increased significantly in favor of the North-West region, reaching 2016 in 3,079 doctors (7,769 doctors in the North-West region compared to 4,690 doctors in the South-Muntenia region). Regarding the number of doctors, at national level, it increased from 45,786 doctors in 2000 to 57,304 in 2016; also, the number of dental doctors registered an increase with 8,135, in the year 2000 in the Romanian health system activating a no. of 8,307 dentists, compared to 16,442 in 2016; the number of pharmacists also increased by 9,991 between 2000 and 2016.

INEQUALITIES IN POPULATION COVERAGE WITH BASIC HEALTH SERVICES

The basic health services mean the package of medical services provided in the specialized ambulatory medical care for the clinical specialties, respectively the medical care that the insured population with the social health insurance can benefit. The package of basic health services is established according to the existing health policies at European Union level, the existing national and global disease index (for example, the increasing number of people suffering from type II diabetes determines the financing prevention programs, medication, and free specialist consultations), as well as according to the needs of the population. The public health system needs to cover as much as possible the coverage of the population with basic health services, this aspect leading to maintaining a balanced state of health, to keeping the diseases under control, and to the prevention, which is more less expensive compared to treatment. Health services that are not part of the services considered to be basic, will be purchased through direct payment, co-payment or private health insurance.

Fig. 4: The degree of coverage of the population with basic health services, expressed as a percentage



Source: author, based on data available at WHO (2017),

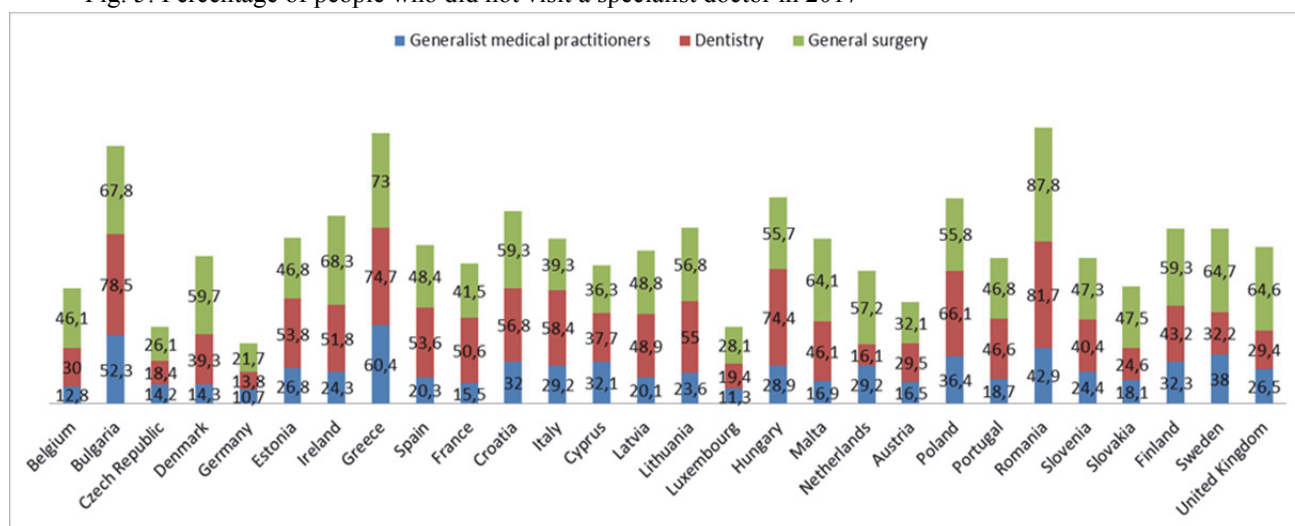
<https://apps.who.int/iris/bitstream/handle/10665/255336/9789241565486-eng.pdf;jsessionid=058CE36722415638E3BE6D44EEF22BB3?sequence=1>

The degree of coverage of the population with basic health services ranks Romania in the last places (Figure no. 4), with 89% in 2017, followed by Bulgaria, with 88.2%, and Cyprus, with a percentage of 83%. The analysis shows that developed countries have the power to cover 100% of the population with basic health services. This is important, given that it can lead to improved population access to health care and thus to a reduction in the national disease index.

INEQUALITIES IN ACCESSING HEALTH SERVICES

In the European context, regarding the living conditions of the population, our country occupies the last places, signifying inadequate living conditions and, especially in rural areas, as well as difficulties in accessing public institutions in these areas. According to the European Commission (2017), in Romania, there is a big problem related to access to health services, especially for the poor, which is about 20% of the population. This gap is particularly high in the treatment of chronic diseases because 42% of poor people, who say they have a chronic disease, do not access the health system, compared with 17% of people with a good financial situation. The analysis, which assumes that the need for care for people with chronic diseases is similar among the wealthy and the poor in the population, estimates that an alarming 85% of the poor who need health care do not benefit from it. (European Commission, 2017, pp. 10-15). The real gap is even greater because most poor people with chronic illnesses do not realize the need for medical care. The existence of inequality in accessing this system is universal and inevitable, but it can be reduced by involving decision-makers in this regard. Inequalities amplify the tendency towards poverty, as well-being has a direct impact on education, health and the social environment, which is often the result of their attainment. In Romanian society, economic resources are the main cause of inequality in accessing health services; economic prosperity influences lifestyle, health, longevity, emotional well-being and generates different social stratifications. Access to health care is important for everyone, especially vulnerable groups, who face difficulties in this regard.

Fig. 5: Percentage of people who did not visit a specialist doctor in 2017



Source: author, based on data available at <https://ec.europa.eu/eurostat/web/income-and-living-conditions/data/database>

The percentage of people who did not visit a specialist doctor in 2017 is high. The reason why these sectors of the medical system were not accessed was not the lack of necessity but, most often, the lack of possibilities. It is known that people require routine dental consultation every 6 months, and the

fact that 81.7% of the population of Romania did not access this type of consultation (Figure no. 5), is certainly due to the lack of financial resources. Romania is in the first place in the reduced access of the specialty of general surgery, in the second place as regards the lack of access to the dental offices and in the third-place regarding the non-access of general medical practice. The reasons why the population of Romania does not access the general health services frequently are represented by the lack of financial resources, on the one hand, and, on the other hand, by the lack of sanitary units and medical staff in the rural area, which makes difficult access to the health care system.

CONCLUSIONS

The factors that determine the underfunding of health services are the ones that lead to the over-demand of these services. Thus, the precarious state of the economy that determines a low percentage of the GDP allocated to the health sector will perpetuate, due to the fact that the health status of the population, together with the labor force, will be diminished; at the same time, the need for free and/or compensated medicines will increase, as well as the cases of retirement due to health reasons. The costs of these services have increased due to the inability of the state to finance the volume of requests of the population, which means that the health status of the population has decreased while the capacity of the state to finance this system has decreased and at the same time with the increase of the price of the health services.

For the right to health care to materialize in equity, quality and accessibility, the choice of the financing system, as well as the reimbursement and payment mechanisms bring important determinants, such as (1) the collection of financial resources, (2) the management with transparency and efficiency of the available resources, (3) establishing the population's health as a priority, (4) developing prevention programs for certain diseases, etc. Thus, financial mechanisms are required to promote cost-effective healthcare. It is necessary that the financing of the health system be effective through the capacity of managing the existing funds, so as to ensure the coverage of the requests of the patients, the increase of the safety and the quality of the care process, the acquisition of progressive technologies, the diminution of the existing disparities in accessing these services.

BIBLIOGRAPHY

- [1] Corrieri, Sandro; Heider, Dirk; Matschinger, Herbert; Lehnert, Thomas; Raum, Elke; König, Hans-Helmut, (2010), Income, education and gender-related inequalities in out-of-pocket health-care payments for 65+ patients- a systematic review, *International Journal for Equity in Health*, Vol. 9 (20), pp. 1 – 11
- [2] Culyer, Anthony, John, (1989), The normative economics of health care finance and provision, *Oxford Review of Economic Policy*, Vol 5(1), pp. 34 – 58
- Culyer, Tony; Jonsson, Bengt, (1986), *Public and Private Health Care Services: Complementarities and Conflicts*, Basil Blackwell, Oxford
- [3] Di Matteo, Livio, (2005), The macro determinants of health expenditures in the United States and Canada: assessing the impact of income, age distribution and time, *Health Policy*, Vol. 71, pp. 23 – 42
- [4] Di Matteo, Livio; Di Matteo, Rosanna, (1998), Evidence on the determinants of Canadian provincial health expenditures 1965 – 1991, *Journal of Health Economics*, Vol. 17 (2), pp. 211 – 228
- [5] Donaldson, Dayl, S.; Dunlop, David, W., (1986), Financing Health Services in Developing Countries, *Social Science & Medicine*, Vol. 22(3), pp. 313 – 314
- [6] European Commission, (2017), *The country report of Romania in 2017*, online, available at <https://ec.europa.eu/info/sites/info/files/2017-european-semester-country-report-romania-ro.pdf>, accessed 19.09.2019
- [7] Falkingham, Jane, (2004), Poverty, out-of-pocket payments and access to health care: evidence from Tajikistan, *Social Science & Medicine*, Vol. 58, pp. 247 – 258

- [8] Getzen, Tom, E.; Poullier, Jean- Pierre, (1991), An income- weighted international average for comparative analysis of health expenditures, *International Journal of Health Planning and Management*, Vol. 6(1), pp. 3 – 22
- [9] Gerdtham, Ulf, G.; Jönsson, Bengt, (1991), Price and quantity in international comparisons of health care expenditure, *Applied Economics*, Vol. 23, pp. 1519 – 1528
- [10] Gruen, Reinhold; Howarth, Anne, (2005), *Financial Management in Health Services*, Open University Press, USA
- [11] Hajizadeh, Mohammad; Nghiem, Hong Son, (2011), Out-of-pocket expenditures for hospital care in Iran: who is at risk of incurring catastrophic payments?, *International Journal of Health Care Finance and Economics*, Vol. (11), pp. 267 – 285
- [12] Hansen, Paul; King, Alan, (1996), The determinants of health care expenditure: a cointegration approach, *Journal Of Health Economics*, Vol. 15(1), pp. 127 – 137
- [13] Hitiris, Theo; Posnett, John, (1992), The determinants and effects of health expenditure in developed countries, *Journal of Health Economics*, Vol. 11(2), pp. 173 – 181
- [14] Hotchkiss, David, Richards; Hutchinson, Paul, Lawrence; Malaj, Altin; Berruti, Andres, Alejandro, (2005), Out-of-pocket payments and utilization of health care services in Albania: Evidence from three districts, *Health Policy*, Vol. 75, pp. 18 – 39
- [15] Insse (2006), online, available at http://www.insse.ro/cms/files/Anuar%20arhive/serii%20de%20date/2006/ASR_2006.pdf, accessed 11.09.2019
- [16] Insse (2009), online, available at http://www.insse.ro/cms/files/Anuar%20arhive/serii%20de%20date/2009/pdf/ASR_2009_Romana.pdf, accessed 11.09.2019
- [17] Insse (2017), online, available at http://www.insse.ro/cms/sites/default/files/field/publicatii/anuarul_statistic_al_romaniei_carte_ro.pdf, accessed 11.09.2019
- [18] Kleiman, Ephraim, (1974), The determinants of national outlays on health, în Perlman Mark (ed.), *The Economics of Health and Medical Care*, pp. 66 – 88, Macmillan, London
- [19] Milne, Robin; Molana, Hassan, (1991), On the effect of income and relative price on the demand for health care: EC evidence, *Applied Economics*, Vol. 23, pp. 1221 – 1226
- [20] Murthy, Vasudeva, N., R.; Ukpolo, Victor, (1994), Aggregate health care expenditure in United States: evidence from cointegration tests, *Applied Economics*, Vol. 26, pp. 797 – 802
- [21] Newhouse, Joseph, P., (1977), Medical- care expenditure: a cross national survey, *The Journal of Human Resources*, Vol. 12(1), pp. 115 – 125
- [22] Newhouse, Joseph, P., (1987), Cross- national differences in health spending: what do they mean?, *Journal of Health Economics*, Vol. 6(2), pp. 159 – 162
- [23] OECD/ European Union, (2018), *Health at a Glance: Europe 2018: State of Health in the EU Cycle*, OECD Publishing, Paris, online, available at https://ec.europa.eu/health/sites/health/files/state/docs/2018_healthatglance_rep_en.pdf, accessed 20.09.2019
- [24] Parkin, David; McGuire, Alistar; Yule, Brian, (1987), Aggregate health care expenditures and national income: is health care a luxury good?, *Journal of Health Economics*, Vol. 6(2), pp. 109 – 127
- [25] Poulsen, Camilla, Aavang, (2014), Introducing out-of-pocket payment for General Practice in Denmark: Feasibility and support, *Health Policy*, Vol. 1, pp. 1 – 8
- [26] Yelin, Edward, (2008), Out-of-Pocket Payments in Arthritis: Spur to Prudent Purchasing or Red Herring?, *Arthritis and Rheumatism, American College of Rheumatology*, Vol. 58(8), pp. 2225 – 2227
- [27] World Health Organization, (2017), online, available at <https://apps.who.int/iris/bitstream/handle/10665/255336/9789241565486-eng.pdf;jsessionid=058CE36722415638E3BE6D44EEF22BB3?sequence=1>, accessed 11.09.2019
- [28] www.ec.europa.eu, accessed 11.09.2019