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Article

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Financial resources - an important aspect of increasing the performance of the health care sector in Romania

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Abstract

Compared from other services, the medical services are accessed, required and necessary for any person, meaning a high cost for health care. In Romania, the level of health financing is below the European Union average, which means confronting both health professionals and patients with the lack of resources. Both funding and organization determine the proper functioning of a health system that is reflected on the population's health. This article aims to study the Romanian health system from the financing perspective and the financial management of health institutions, related to the performance level of this sector. In order to have a clear picture, Romania needs to be compared to the rest of the EU Member States in terms of financing, and sector performance. The performance degree the Romanian healthcare system contributes to a large extent to the population's general health, and it is necessary to comply with the European legislation. The degree of funding for this sector is reflected in performance and thus requires a higher GDP percentage allocated to health. The functioning of the health sector as a whole and the funding and management of its resources are a matter of general interest, given that these aspects are reflected in the health status of the population.

Keywords: financial resources, healthcare sector, performance, Romania

Introduction

Simultaneously with the world evolution, the emergence of principles and the economy were laid the foundations of the development and diversification of methods for prevention and treatment of diseases and care for the sufferers, with emphasis on the importance of the financial resources and the qualification of the personnel dealing with this domain. Thus, in the contemporary period, health services and healthcare represent a set of specialized activities, developed and carried out within

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different specialized institutions or organizations, belonging to a community, aiming to solve various categories of problems, which affect directly or indirectly the personal and social life of different categories of people.

Health and the health services sector refer to the medical services provided by hospitals, clinics, family doctors and healthcare establishments. This type of service is categorized, uses specialists accounting to the specifics of problems and the number of requests and provides human and financial resources through which the specialized institutions aim at diminishing, preventing, removing and limiting the adverse effects of situations caused by a poor state of health. In this regard, an essential contribution is represented by the available financial resources and their management.

Any decision of the health system from the point of view of financing and managing the resources at the national level must put the citizen and his physical, mental and social health in the forefront. As a result, this article starts from the idea that, in a national and global context, it is necessary to deepen the study of the financial management of the hospital units, considering that this affects the performance of the hospital units. The topicality of the topic is highlighted by the need to rethink and re-evaluate the financing of the health sector in the European context and, on the other hand, to analyse the impact of health sector financing and resource management on the performance of the health sector. The topical theme, regarding the quality, respectively the performance and the financing of the health sector, as well as the effects of these aspects on the population's health, is making the premises of a complex analysis. Thus, the authors' aims are to highlight the importance of the performance of health services, as well as the fact that this aspect is directly influenced by the available financial resources. The highlighting of Romania from this perspective in the EU context contributes to the understanding of the needs to allocate a higher percentage of GDP to this sector, in order to increase performance.

1. Literature review

The financing of the health sector, as well as its performance, have proved to be important topics since the 1970s, when numerous researches began to emphasize the need for financial resources to support the population's health. Among the authors who studied the importance of the financial resources for health services, from the period 1970-1990, there are Kleiman (1974), Newhouse (1977, 1987), Donaldson and Dunlop (1986), Parkin and coll. (1987), Culyer (1989), Milne and Molana (1991), Gerdtham and Jonsson (1991), who have demonstrated a positive correlation between the financial resources allocated to this sector and the population's health status, in most OECD countries,

but also in the European Union. More recent research has also focused on assessing the importance of the correlation between the volume of public spending with health, population's health status and the growth of GDP, respectively Murthy and Ukpolo (1994), Hansen and King (1996), Di Matteo (1998), Gruen and Howarth (2005).

Helms and Damiano (1995) argue that performance hospital management serves as a safety net for the poor and the rural population. Mick et al. (1994), Rizzo (1991), Cleverley (1992) also argue that effective financial resources increases the ability of the rural population to access these services. Treat (1976), Ozcan et al. (1992), Ozcan and Luke (1993), Grosskopf and Valdmanis (1993) support the importance of hospital performance in both rural and urban environments. Lynch and Ozcan (1994), Lynn and Wertheim (1993), Whiteis (1992) considers that poor financial management influences the performance of hospitals, leading to their closure, especially in rural areas.

According to Walburg et al. (2006), concepts of health performance were developed in the early 1980s, referring to the use of indicators to measure and improve the performance of employees, teams, and organizations. In particular, it marks the measurement and increase of the quality of the care process, using the resources available in the most efficient way. (Walburg, J. et al., 2006, p. 39). The first series of health monitoring performance programs have been implemented in the United States in the cardiology sector. In 1995, the National Committee for Quality Assurance (NCQA) launched its first HEDIS Health Performance Reporting Program in the United States, a program used in over 90% of health plans and several organizations that measure performance at the system level, as well as the supplier. (Bottle et al., 2017, pp. 42 - 44).

One of the ways to measure the performance' degree of health services is the Euro Health Consumer Index (EHCI), present in the report published by Health Consumer Powerhouse, which is an index by which a comparison is made between the efficiency of health systems. The aim of the study was to select a number of limited indicators, in a determined number of evaluation's fields, which, in combination can present a degree of performance of the health systems in the analysed countries. The EHCI index includes indicators such as: patients' rights and information (12 indicators); waiting time to receive treatment (6 indicators); system's results (9 indicators); coverage with basic services (8 indicators); prevention (7 indicators); pharmaceutical products (7 indicators).

Since 2004 Health Consumer Powerhouse (HCP) publishes a wide range of comparative analysis regarding the healthcare performance in different countries, with help of Euro Health Consumer Index (EHCI); the most representative publication in this regard is the annual report Euro Health Consumer Index (EHCI).

In January 2008, the Frontier Center for Public Health Policies and HCP released the first report, the „Euro- Canada Consumer Health Index”, which compared the health systems in Canada and 29 European countries, examining the performance of the health care from a consumer perspective in the province; new editions were published in 2009 and 2010. (Eisen and Björnberg, 2010, pp. 1 – 48). The Euro Health Consumer Index, launched in July 2008, compares the performance of 29 European cardiovascular health systems, covering 28 performance indicators. A new edition was published in 2016, and another edition in 2017 regarding disease prevention in this field. (Björnberg and Uhler, 2008, pp. 1 – 61).

The Euro Health Consumer Index Diabetes, launched in September 2008, has rendered the performance of the European healthcare services ranking in the field of diabetes, in the key areas: information, consumers’ rights and choice; generosity; prevention; access to procedures and results. A new edition was published in 2014. (Garrofé et al., 2014, pp. 1 – 71). Other reports that were published include: Euro HIV Index 2009, Euro Headache Index 2012 and Euro Hepatitis Index 2012. Among the publications that used the Euro Health Consumer Index (EHCI), in order to analyse the performance of the health sector financing, we mention: Clarke and col. (2003), McCabe and col. (2005), Baggott and Forster (2008), Gonçalves (2011).

2. The importance of financing the health sector

Financial resources for a country's health services can be collected in different ways and are closely linked to per capita income. A less developed country, such as Romania, will obviously face a poor budget for health, and none of the funding methods will be able to offer a solution that will fully solve the acute problems. Generally, the funding methods are:

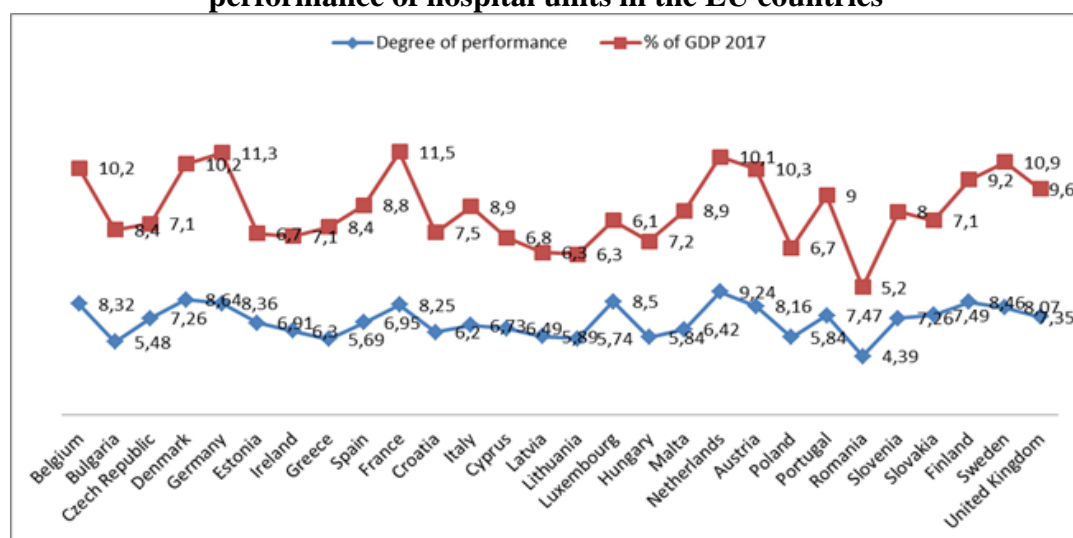
- Compulsory health insurance, established by the legislation in force and which helps the state to cover some of the needs of the health care system;
- Optional health insurance provides the possibility for every willing person to transfer the risk of occurrence of an undesirable health event to the insurer. The amount for this voluntary insurance is calculated for each individual, depending on the incidence of the disease and has recorded a significant increase in recent years;
- Direct payment to beneficiaries of the health services received can be fully realized, as a rule, in the private sector, or in partially, such as co-payment and co-insurance, methods encountered in the public health sector. However, problems arise from the fact that the poor or the elderly,

considered the main beneficiaries of health services, may reduce the access to or even abandon this care system given the payment impossibility;

- Resources from the state or local budget (community budget), these financial resources come from the contribution of the inhabitants, according to their income, taxes and duties. These funds are collected to the state budget and then distributed to the hospital units.

Health is a vicious economic sector, where financial resources play a central role. It is fundamental that we can ensure the health and well-being of the citizens of the European Union, as well as the productivity in the Member States. The health sector accounts for 10% of EU's GDP, and holds a share of 8% of the total European workforce, according to Eurostat (2017). In itself, health is a value, as well as an investment sector with strong growth potential, which is why it is necessary to allocate as much as possible from GDP.

Figure 1. Correlation between the Healthcare expenditure (%GDP) and the increase in the performance of hospital units in the EU countries



Source: authors' elaboration based on available data at <https://healthpowerhouse.com/media/EHCI-2018/EHCI-2018-report.pdf>

The EHCI index (Euro Health Consumer Index) is the most complex way of calculating the performance degree of health sectors, including the performance of their financing. EHCI 2017 is made of 6 components, respectively: (1) patients' rights and information, maximum score 125; (2) waiting time, maximum score 225; (3) system's results, maximum score 300; (4) coverage with basic services, maximum score 125; (5) prevention, maximum score 125; (6) pharmaceutical products, maximum score 100. In order to calculate the degree of financing performance, the average of one component or the average of the 6 sub-components can be correlated with the GDP's percentage allocated to the health sector or with expenditure per capita for health.

It may be noticed that the degree of health systems' performance of the EU state members depends, to a large extent on the degree of financing. (Figure 1). Belgium provides a percentage of 10,2% of GDP to the healthcare sector and has an performance degree of 8,32%, Germany provides a percentage of 11,3% of GDP and has an performance degree of 8,64%. Romania has the lowest level of performance, of 4,39%, as well as the lowest percentage of GDP allocated to this sector, 5,2%. The highest performance degree is found in Netherlands, respectively 9,24%, a country that provides a percentage of 10,1% of GDP; although France is providing the highest percentage of GDP (11,5%) to the healthcare system, this thing means only 4.026,15 USD per capita allocated to health, comparing to Netherlands, which allocates a lower percentage of GDP (10,1%),but this means 4.746,01 USD per capita allocated to health. This aspect also applies to the state of Luxembourg, which, although is allocating 6,1% of GDP to the health sector, this means 6.236,00 USD per capita spent on health.

3. The performance of the health care sector

The performance of the health system is one of the main pillars of state development, as the health of the population directly influences the productivity of labour. A country with prospects for development is a country where every citizen's access to quality medical services is respected. Presently, the Romanian medical system is functioning poorly in almost all its components. The resources consumed, however low compared to the European average, are not being used effectively. Romania is ranked the last in the rankings for the performance of health systems in Europe.

Figure 2. Reporting and Analytics Capabilities for Quality and Performance Improvement



Source: Strome, (2013), p. 18

Considering that healthcare is one of the most complex sectors, improving its quality and performance is also being done with a high degree of difficulty. Thus, questions such as "What has occurred?" (circle 1) and "What is it occurring now?" (circle 2) can help highlight the current performance, and identify improvement or, on the contrary, worsening, deterioration. The question "Why is it occurring?" (circle 3) goes one step further and helps the hospital unit to identify the causes of certain types of problems, highlights the relationship between expectations and reality. The question "What is likely to occur?" (circle 4) allows, given the appropriate models and data, the anticipation of outcomes and the issues which may arise, as well as their causes, in the sense of acting, at the right time, on causes rather than on effects. These approaches help to highlight the relationships between different various factors, which, being of a different intensity, can have a negative impact on the quality and performance of hospital units.

It is known that a developed country will invest more in financing the healthcare sector, compared to a less developed country, which is also reflected in the national economy. Also, the degree of financing of the healthcare sector influences the performance of these services through many aspects, such as: (1) the number of existing beds at hospital level, (2) the number of medical staff, (3) the provision of high- modernization of hospital units, (5) population coverage with basic medical services, (6) population access to health care. The existence of a high-quality level is fundamental to monitoring a health system.

Within medical services, there are many terms used to describe the elements of performance improving. (McLoughlin and Leatherman, 2003, pp. 136 – 142). In order to identify the safe means that lead to the performance of the healthcare institutions, mainly, the easiest way is represented by the financial resources. Resources must be used with caution and transparency, both at the micro and macro levels. In the book “Measuring Up - Improving Health System Performance in OECD Countries”, there are mentioned a category of actions, that could lead to this sectors’ performance growth (McLoughlin and Leatherman, 2003, pp. 136 – 142):

- External supervision, which refers to the periodic checks by the authorities, aiming at the accreditation and certifications of the institutions, as well as the settings of performance objectives that must be achieved in a certain period of time;
- Involvement of the patient and his freedom to choose for the services that are provided to him, based on the information provided by the health institution and based on the knowledge of the law in force;

- Establishing of certain strict rules, at the national level, for those in charge and for the medical staff;
- The knowledge of the medical staff leads to the improvement of the quality of the provision of the medical assistance and thus, it is necessary to evaluate them periodically, to establish certain rules of professional conduct, protocols necessary to be followed;
- Financial incentive, such as remuneration for performance results obtained, as well as non-financial incentive, aimed to increase the desire for professionalism of the medical staff.

Conclusions

The study indicates that health sector financing influences the performance level of these services and thus the state of health of the population at the national level. Romania is among the developing countries, which do not allocate a significant percentage of GDP to health, which in turn influences the national economy.

Financial resources also influence the performance of the healthcare sector by managing the available financial resources. The financial resources and their efficient management are an essential aspect of the efficient functioning and performance of the healthcare sector. In Romania, the GDP percentage allocated to health is low, and the less efficient and transparent management of existing resources cause the lack of medical staff, lack of advanced technology, aspects that directly affect the performance of these services.

The main purpose of any health system is to answer adequately to the patients' specific needs, and in this respect, the performance of the public health institutions is directly proportional to the budget allocated to the system. Romania's adherence to the EU determined that the health status and the services offered at the level of the EU's state members to become reference frame also for the population of our country. The performance level of a system is essentially determined by the way it is funded and organized, including in terms of collecting and attracting resources, as well as their use. In our country, funding from healthcare sector has always been low, compared to the European average. In this sense, one of the explanations is related to considering the health sector as a non-productive one. Further on, our country is in the last places in the EU in terms of resources allocated to health.

References

- Baggott, R. and Forster, R. (2008), Health consumer and patients' organizations in Europe: towards a comparative analysis, *Health Expectations*, 11(1), pp. 85 – 94.
- Björnberg, A. and Uhler, M. (2008), *Health Consumer Powerhouse, Euro Health Consumer Index 2008*, Health Consumer Powerhouse Report, pp. 1 – 71 (retrieved from <http://amministrazioneincammino.luiss.it/app/uploads/2010/03/EHCI-2008-report.pdf>).
- Bottle, A. and Aylin, P. (2017), *Statistical Methods for Healthcare Performance Monitoring*, London, CRC Press.
- Clarke, P., M., Gerdtham, U.G. and Connelly, L.B. (2003), A note on the decomposition of the health concentration index, *Health Economics*, 12 (6), pp. 511–516.
- Cleverley, W.O. (1992), Critical strategies for successful rural hospitals, *Health Care Management Review*, 17(1), pp. 27 – 33.
- Culyer, A.J. (1989), The normative economics of health care finance and provision, *Oxford Review of Economic Policy*, 5(1), pp. 34 – 58.
- Di Matteo, L. and Di Matteo, R. (1998), Evidence on the determinants of Canadian provincial health expenditures 1965 – 1991, *Journal of Health Economics*, 17 (2), pp. 211–228.
- Donaldson, D., S. and Dunlop, David, W. (1986), Financing Health Services in Developing Countries, *Social Science & Medicine*, 22(3), pp. 313 – 314.
- Eisen, B. and Björnberg, A. (2010), *Health Consumer Powerhouse, Euro-Canada Health Consumer Index 2010*, MMX by the Frontier Centre for Public Policy & Health Consumer Powerhouse, pp. 1 – 48 (retrieved from <https://www.fcpp.org/files/1/ECHCI2010%20Final.pdf>).
- Euro Health Consumer Index. (2018), *Euro Health Consumer Index Report*, Health Consumer Powerhouse Ltd. (retrieved from <https://healthpowerhouse.com/media/EHCI-2018/EHCI-2018-report.pdf>).
- Eurostat. (2017), *Healthcare expenditure statistics* (retrieved from https://ec.europa.eu/eurostat/statisticsexplained/index.php/Healthcare_expenditure_statistics#Health_care_expenditure).
- Garrofé, C., Björnberg, A. and Phang, A., Y. (2014), *Health Consumer Powerhouse Euro Diabetes Index 2014*, Report, Health Consumer Powerhouse Ltd. , pp. 1 – 72 (retrieved from <https://healthpowerhouse.com/media/EDI-2014/EDI-2014-report.pdf>).
- Gerdtham, U.G. and Jönsson, B. (1991), Conversion factor instability in international comparisons of health care expenditures, *Journal of Health Economics*, 10(2), pp. 227 – 234.

- Gonçalves, F. (2011), A cross country explanation of performance of health care systems- The consumer point of view using the Euro Health Consumer Index, *Economic Modelling*, 28(1-2), pp. 196 – 200.
- Grosskopf, S. and Valdmanis, V. (1993), Evaluating hospital performance with case-mix adjusted outputs, *Medical Care*, 31(6), pp. 525 – 532.
- Gruen, R. and Howarth, A. (2005), *Financial Management in Health Services*, Open University Press, USA.
- Hansen, P. and King, A. (1996), The determinants of health care expenditure: a cointegration approach, *Journal Of Health Economics*, 15(1), pp. 127 – 137.
- Helms, C.M. and Damiano, P.C. (1995), Health care system reform and public health: protecting the safety net, *Archives of Family Medicine*, 4(1), pp. 12 – 13.
- Kleiman, E. (1974), The determinants of national outlays on health, in Perlman M. (ed.), *The Economics of Health and Medical Care*, pp. 66 – 88, London: Macmillan.
- Lynch, J.R. and Ozcan, Y.A. (1994), Hospital closure: an efficiency analysis, *Hospital and Health Services Administration*, 39(2), pp. 205 – 220.
- Lynn, M.L. and Wertheim, P. (1993), Key financial ratios can foretell hospital closures, *Healthcare Financial Management*, 47(11), pp. 66 – 70.
- McCabe, C., Stevens, K., Roberts, J. and Brazier, J. (2005), Erratum to ‘Health state values for the health utilities index mark 2 descriptive system: results from a UK valuation survey, *Health Economics*, 14(3), pp. 231 – 244.
- McLoughlin, V. and Leatherman, S. (2003), Quality or financing: what drives design of the health care system?, *Qual Saf Health Care*, Vol.12(1), pp. 136 – 142.
- Mick, S.S., Morlock, I., Salkever, D., de Lissovoy, G., Malitz, F., Wise, C.G. and Jones, A. (1994), Strategic activity and financial performance of U.S. rural hospitals: A National Study, 1983 to 1988, *Journal of Rural Health*, 19(3), pp. 150 – 167.
- Milne, R. and Molana, H., (1991), The effect of income and relative price on the demand for health care: EC evidence, *Applied Economics*, 23, pp. 1221 – 1226.
- Murthy, V.N. and Ukpolo, V. (1994), Aggregate health care expenditure in United States: evidence from cointegration tests, *Applied Economics*, 26, pp. 797 – 802.
- Newhouse, J.P. (1977), Medical- care expenditure: a cross national survey, *The Journal of Human Resources*, 12(1), pp. 115 – 125.
- Newhouse, J.P. (1987), Cross- national differences in health spending: what do they mean?, *Journal of Health Economics*, 6(2), pp. 159 – 162.

- Ozcan, Y.A. and Luke, R.D. (1993), A national study of the efficiency of hospitals in urban markets, *Health Services Research*, 27(6), pp. 719 – 739.
- Ozcan, Y.A., Luke, R. and Haksever, C. (1992), Ownership and organizational performance: a comparison of technical efficiency across hospital types, *Medical Care*, 30(9), pp. 781- 794.
- Parkin, D., McGuire, A. and Yule, B. (1987), Aggregate health care expenditures and national income: is health care a luxury good?, *Journal of Health Economics*, 6(2), pp. 109 – 127.
- Rizzo, J.A. (1991), Has Medicare been a bad deal for rural hospitals?, *Journal of Rural Health*, 7(5), pp. 599 – 617.
- Strome, T.L. (2013), *Healthcare Analytics for Quality and Performance Improvement*, New Jersey: John Wiley & Sons.
- Treat, T. (1976), The performance of merging hospitals, *Medical Care*, 14(3), pp. 199 – 209.
- Walburg, J., Bevan, H., Wilderspin, J. and Lemmens, K. (2006), *Performance Management in Health Care*, London: Routledge Taylor & Francis Group.
- Whiteis, D.G. (1992), Hospital and community characteristics in closures of urban hospitals, 1980 - 1987, *PublicHealth Reports*, 107(4), pp. 409 – 416.