THE EVOLUTION OF THE FINANCING OF HEALTH SERVICES IN ROMANIA, FROM THE SEMASHKO MODEL TO THE BISMARCK MODEL

IULIANA- CLAUDIA MIHALACHE*, FELICIA- CĂTĂLINA APETROI (RĂCOARE)**

Abstract: *The health status of the population has always influenced the economic state of the country and has been influenced, in turn, by the economy. Due to the increased index of disease worldwide, an aspect that leads to the increase of the costs of health services, there is more and more talk about the difficulty of the states in the financial support of this sector. The present article intends to carry out an analysis of the evolution of the financing models adopted by Romania during communism and post-communism. The importance of the topic addressed derives from the understanding of health as a resource for the development of society and not as a resource consumer, while understanding the role of decision-makers in the importance of efficient management of financial resources for this sector. Thus, beyond the individual perspective on health, its subjective perception and the individual decision to choose behaviors that keep the state of health in the balance, the state can be an important factor in ensuring the functioning of this system.*

Keywords: Semashko, Bismarck, financing, Romania healthcare system

JEL Classification: A12, B51, H51, I15

1. INTRODUCTION

The costs for healthcare have increased, in recent years especially, at rates that exceed the growth of incomes, this difference is seen by many analysts, economists and political decision-makers, as a prominent problem for many states, generated, on the one hand, by the unhealthy lifestyle and, on the other hand, by the lack of investment in prevention. The essential factor, in this sense, is the low

* Iuliana- Claudia Mihalache, Alexandru Ioan Cuza University of Iași, Doctoral School of Economics and Business Administration Iași (România), E-mail: mihalacheclaudia22@yahoo.com

** Felicia- Cătălina Apetroi (Răcoare), The university of Seville, Doctoral School of Economics, Seville, (Spain), E-mail: apetroifelicia@yahoo.com

income at the national level, which do not allow to improve the lifestyle of each individual and also do not allow the investment in a quality health system and able to cover all the necessities.

The system of health services in Romania from 1948 to 1989 was inspired by the Soviet model Semashko, a centralized state system, which seemed to guarantee free access to health services for the entire population. It was based on the centralization of the financial resources by the Ministry of Health, asking patients to use only the services in their residential area, respecting the principle of territoriality, and it operated in an economic environment without the existence of the private sector and, implicitly, of the private health insurance. During the communist period, which ended with the anti-communist revolution of 1989, health services functioned inefficiently, not only because of the centralized organization and funding but also because of the limited volume of resources allocated to this sector.

2. THEORETICAL FRAMEWORK

2.1. Research methodology

The research methodology comprises qualitative and quantitative research; qualitative research offers the possibility of a deep understanding of the subject of the research and, in this way, the chance of a complex explanation of it, by methods such as the analysis and synthesis of the specialized literature, which ensures the formation of a faithful image on the studied phenomena. The qualitative dimension used will support the analysis of the knowledge stage, the presentation of the main paradigms of the field and the analysis of the bibliographic data. The quantitative part of the research methodology is based on the grouping method, the comparison method, the indicators method, the statistical data analysis methods; the data needed for the quantitative analysis were collected from official sources, respectively the Statistical Yearbooks of Romania from 1948-1989, the Official Reports of the statistical institutes and official sites, such www.data.worldbank.org.

2.2. Literature review

The financing of the health sector has proved to be an important topic since the 1970s when numerous researches highlighted the need for financial support for the health status of the population. Among the authors who have studied 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 public spending and health status of the population, in most OECD countries. 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).

In the last century, in Europe, three models of public health systems have been affirmed, with the coordinators defining how to finance and organize the provision of health services: The national health care system – Beveridge, the health insurance system – Bismarck, Centralized health system – Semashko; to these, the model that operates predominantly in the U.S. could be added and in a few other states and that is practically based on private health insurance.

The health insurance system – Bismarck was introduced by Otto von Bismarck, in Germany, and is the most widely used system, based on the provision of health services to the population, based on compulsory health insurance. This system works in Germany, Austria, Belgium, Switzerland, France, Romania, Luxembourg, and the Netherlands, with some differences from one country to another. It offers wide coverage, but the population that is not included in the field of work remains outside the coverage of medical services. This economic financing model was studied by Gerlinger and Schmucker (2009), Manoj and Ashutosh (2010), Audretsch et al. (2015), Goldberg (2016).

The centralized health system – Semashko was introduced in the Soviet Union by Nikolai Alexandrovich Semashko, in 1918. The model has founded on the premise that the government is responsible for providing healthcare. The control, financing, and organization within this model were carried out by the state by collecting participation rates for financing, applied to the wage mass. This model requires patients to use only the services provided in their area of residence and operates in an economic environment where private health insurance is lacking. The Semashko type system is, par excellence, a socialist health system, based on centralized planning and access to care of all citizens; is found in Russia, Poland, Hungary, Czech Republic, Croatia. Cockerham (2001), Vlădescu et al. (2009), Shishkin et al. (2014) are among the authors who have studied this model of financing the health sector.

2.3. The evolution of financing health services before '89

After the end of the Second World War (1939-1945), the Romanian health system went through a period of recovery (1945-1947) characterized, mainly, by the effort to restore the destroyed health institutions, to adapt the health services under peace conditions and launch anti-epidemic campaigns to eradicate outbreaks during the war. During that period, the health system faced a high frequency of social diseases, infant mortality, low material base, lack of medical staff and insufficient financial resources. (Ursea, 2009, p. 306).

Romania came out of the Second World War marked by serious public health problems, which slowed the economic recovery of the country. The outbreaks that broke out during the war, and continued into the 1945s, were maintained by the lack of doctors; Between 1944 and 1945 there were less than 50 specialists in infectious diseases and about 140 pediatric doctors. (Statistical Yearbook of the Socialist Republic of Romania, 1981, pp. 12 – 15). The new health system took shape in 1948 and was finalized in the following decade under the leadership of the communist regime, which began the reconstruction of Romania, following the socialist principles imposed by the Soviet ideology, by issuing new legal regulations with the main purpose of eradicating private property. In 1949, according to Decree no. 134 of April 2, 1949, for the nationalization of health units (Decree no. 134/1949), a public health sector is created, which offers free health services to the entire population, operating according to the Semashko financing model.

The years 1948-1950 represent the actual stage of the establishment of the socialist system of health organization. The refining of medical care becomes public and, thus, a unitary system of hospital and ambulatory care managed by the Ministry of Health takes shape; centralized management has made the main tasks of the health system possible through systematic, planned actions, which aimed at comprehensive coverage with health services. (Pavelescu, 2006, pp. 276 – 277). After realizing the first state economic plans and building the socialist health system, it followed the stage of developing its material basis according to the principle of territoriality, which included the period 1951-1965. Then, in the years 1965-1980, it was intended to be the stage of modernization and improvement of the field of health protection. (Ursea, 2009, pp. 315-316). The whole period was aimed at restoring and developing the economy of the country after the Second World War; this objective was to be achieved through investments in population health and by increasing birth rates.

Public health services have become compulsory and financed entirely from public sources, implemented by local health institutions and monitored by the

Ministry of Health. Since 1966 norms have been established for the organization and functioning of the sanitary units, by Decree no. 466 May 25, 1966. (Decree no. 466/ 1966). Starting with 1978, the Romanian health system benefits from unitary regulations, through Law no. 3/1978 regarding the health insurance of the population, which establishes all the components of the health activity in our country: "the state guarantees the right to health protection and ensures unrestricted access of all the citizens of the country, regardless of nationality, race, sex or religion, to medical care." (Law no. 3/ 1978); thus, health was among the few areas that benefited from a special law.

The resources of the health system (financial and human) evolved in close dependence on the economic transformations in Romania in the respective years. Thus, fully supported by the state budget, health expenses were a priority in allocating the available amounts. In 1946, the Ministry of Health's budget reached 6.42% of the country's budget compared to 1.7% in 1945. Between 1950 and 1989, there was a significant increase in both the budget allocated to health and the number of people employed. in the system, allowing the expansion and development of the sanitary network throughout the country. (Statistical Yearbook of the Socialist Republic of Romania, 1981, pp. 12-35). Compared to 1950, in 1989 the annual increase in expenditure for this area increased by 29.4 times. (Center for Calculation, Health Statistics and Medical Documentation, 2003, pp. 1-42).

Figure-1: Total health expenses in Romania, 1950 – 1989, millions lei

Source: author, based on the data available in the Statistical Yearbook of the Socialist Republic of Romania (1981) and the Calculation Center, Health Statistics and Medical Documentation (2003)

Between 1950-1955, the average annual growth rate of the total expenditure for health care was 22.78%, and that of the expenditure per capita of 21.31%. The high rate of increase of the expenses destined to the health care was possible both due to the low level at which they were located at the beginning of the 20th century, as well as to the functioning of the public health system of that period. In 1956-1966, the average annual rate of increase of the expenses destined to the health care continued to be high, respectively of 10.81%; from expenditures per capita, the average annual growth rate was 9.81%. Between 1967-1977, the average annual rate of growth of expenditures for health care was 7.25%. Even if, compared to the previous analysis period (1956-1966), the dynamics appear to be lower, the value of the financial resources allocated from the state budget to support the public health system has increased more than twice. Under these conditions, the level of expenditures for health care per capita increased at an average annual rate of 6.05%. Between 1977 and 1989, the rate of increase of expenditures for the operation of the healthcare system was 4.12%; the expenses per head per inhabitant increased at an average annual rate of 3.01%; the annual changes of the respective expenses showed wide amplitude oscillations. Thus, between 1977 and 1981, annual increases between 4.26% and 7.79% were recorded. Since 1986, there has been an increasing instability of the financial resources allocated for the protection of health.

In the period of almost half a century, from the end of the Second World War until December 1989, Romania has undergone profound changes in the economic and health level. The health policy of that period was under the imprint of socialist thinking, of planned social development, of the decisive role of the communist state.

Many aspects incriminate the communist regime concerning the health system, such as the political instrumentation of hospitals and medical controls, the prohibition of abortions, the neglect and lack of resources in hospitals, false reporting of the situations in the health units.

Table-1: The evolution of the health system in Romania, 1945 – 1989

1945	The end of the Second World War
1945 – 1947	The national effort to restore the destroyed health institutions, adapting them to the conditions of peace
1948	The first communist constitution in Romania Imposing the healthcare model Semashko
1948 – 1949	State health fund – nationalization of health institutions
1948 – 1950	The stage of establishing the socialist system of health organization
1951 – 1965	The stage of development of the material basis of health services
1965 – 1980	The stage of modernization and improvement of health services
1978	The state guarantees the right to health protection and ensures unrestricted access to this sector
1989	The end of the communist regime in Romania, shaping the end of the economic model of financing the health sector – Semashko

Source: author

The reasons that led to the necessity of the reform of the health sector were: (1) the continuous increase of the expenses for this sector, without an improvement of the health status of the population; (2) unequal coverage of the population with health services; (3) the inadequate quality of the services provided; (4) the low salary remuneration of the medical personnel in correlation with the increased work volume. (Vlădescu, 2000, pp. 65 – 67).

2.4. The Romanian economic model for financing health services – the Bismarck model, adopted after '89

Romania, as well as other former socialist countries such as Albania, Bulgaria, Slovakia, Slovenia, Lithuania, operated in accordance with the principles of a centralized healthcare system based on the Semashko model. The fall of communism meant a set of reforms, meant to bring Romania's health system closer to the German model, namely the Bismarck model, and to also implement an alternative to the public health sector, the private health system.

With the Law no. 145/1997 of the social health insurance, the medical system became predominantly Bismarck type, through the compulsory insurance rates paid by taxpayers, fixed according to their incomes. Thus, the law of social health insurance came into force, which regulates the functioning of the system of health protection of the population. This system assumes that the social health insurance funds are made up of the contribution of the insured persons, of the natural and legal persons who employ employees, from the subsidies from the state budget, as well as from other sources; also, social health insurance is obligatory and operates decentralized, based on the principle of solidarity and subsidiarity in the collection

and use of funds, as well as the right of free choice by the insured of the doctor, of the health unit and the health insurance house. (Law no. 145/ 1997). However, according to statistics, there are a large number of people who cannot access the medical services they need, the main reason being the lack of financial resources.

In the early 1990s, the move to diversifying funding sources was seen as a way to raise health funds. Thus, in 1992, the government introduced the partial compensation of medicines, concurrently with the creation of a special Fund for health, represented by a coefficient of 2% of the tax on salary and also from the funds collected from tobacco taxes and alcoholic beverages, as well as from advertising for this type of product. (Ursea, 2009, p. 376). However, until 1997, the taxes collected on the state budget remained the main source of financing for the health system in Romania. Currently, the health system in Romania represents the modified revision of the Bismarck model, with the influence of the Semasko and Beveridge models as well. Private health insurance is an optional system, in addition to compulsory health insurance, supporting the organization and functioning of the social health insurance system, in a complementary, supplementary or substitute way.

Figure-2: Financing of the health sector in Romania, 1990 – 2017, as a percentage of GDP

Source: author, based on data available at

<https://data.worldbank.org/indicator/SH.XPD.CHEX.GD.ZS?locations=RO>

Between 1990 and 2017, there is an increase in health financing as a percentage of GDP, as a result of the development of this sector and the provision

of the necessary care to the population. The period 1991-1996 saw an increase in the expenditure of this sector, from 2.7% of GDP in 1990 to 3.1% in 1995, and in 1997 the percentage allocated to this sector will again be 2.8 %. The period from 1999 to 2005 saw a constant and significant increase in health expenditure, from 3.2% in 1998 to 5.4% in 2005. The following years show a fluctuation in the health sector's financing, respectively a decrease in 2005 – 2008, followed by an increase in the years 2008 – 2010; in 2011 a percentage of only 4.6% of GDP was allocated to health, following an increase until 2014; in 2015 the lowest percentage of GDP was allocated to the healthcare sector in the last 12 years, respectively 4.5%, as in 2002; 2016 and 2017 represent an increase in the financing of the health sector, respectively 5.0% in 2016 and 5.2% in 2017.

3. CONCLUSIONS AND IMPLICATIONS

Financing the health sector is a problem, as well as addressed, so difficult to solve. It is known that well-managed financial resources can lead to an increased degree of efficiency of the health sector, but at present most states are facing difficulties in ensuring a solid base of health services. The costs of this system are rising at a rapid pace, which is a problem even for developed countries.

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, which 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.

The economic models of financing existing in the health services, for good functioning, have to be adapted according to the country in which they operate. Each system has its own advantages and disadvantages, as well as changes depending on the needs of the population: the Beveridge system has a relatively good impact on the health status, but involves long waiting lists for certain medical services, as well as high level of bureaucracy; the Bismarck system offers a high level of performance, but the costs involved are among the highest in the world; In the case of the Semashko model, competition is lacking, which makes the system

lacking in performance. The system of private health insurance is used by only a few states, because of the high costs involved, as well as of a general idea that the state does not have to take care of the health status of the population.

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