

ANALYSIS OF HEALTH EXPENDITURES IN ROMANIA

László FEHÉR¹, Lucia Georgeta DAINA¹, Cristina-Paula COSTEA^{1#}, Mădălina Diana DAINA¹, Marinela BONTA¹, Bogdan-Andrei BUMBU¹

¹University of Oradea, Faculty of Medicine and Pharmacy, Street Piata 1 Decembrie, no.10, Oradea, Romania

RESEARCH ARTICLE

Abstract

The analysis of the expenses in the health systems at the European level reveals a series of specificities and particularities. In accordance with the practical and financial possibilities in each country, the adopted administrative measures inevitably led to the reformation of the systems. Financial allocation is directly proportional to service delivery. So in Romania, most of the health services are provided at the hospital level. The present study analyzes health expenses in Romania, highlighting total health expenses and hospital expenses. In Romania, there is a 20-fold increase, in RON, of total health expenses from 2000 to 2021. Total health expenses per inhabitant increase 24 times, and the share of health expenses in the Gross Domestic Product (P.I.B), fluctuates during the analyzed period from 3.9 percent in 2000, to 5.4 percent in 2021. The total expenses in hospitals gradually increased during the analyzed period. In the year 2021, the share of expenses on medicines from the total expenses in hospitals was 10.9%.

Keywords: expenses, health, Romania

#Corresponding author: cristina.ciobanu88@gmail.com

INTRODUCTION

The performance of a health system is determined by the way health funds are collected and distributed to providers (Aubrey, 2007; Ciurea, 2011). The analysis of the expenses in the health systems at the European level reveals a series of specificities and particularities (Văidean, 2010). In accordance with the practical and financial possibilities in each country, the adopted administrative measures inevitably led to the reformation of the systems (EU-HSPA, 2020; Koch, 2005).

The health system in Romania has gone through a long period of transition. Until 1989, the health system was almost entirely owned by the state, coordinated by the Ministry of Health and the County Health Directorates. Currently, a decentralized system operates in Romania in which local public administrations play an important role alongside the Ministry of Health (Sinitchi, 2008).

Medical assistance and the method of providing health services is based on a rich legislation in the field, in which the financing of the health system is regulated by Law no. 95/2006 on health reform, with subsequent amendments and additions. The content of the law regulates the financing of activities in the field, from public and private funds. The

responsibilities of the institutions involved in health insurance are also established, as well as the levels and providers of medical services in Romania (Law nr. 95/2006). The analysis of the financing and provision of medical services at each level shows an increased share of financing from public sources (80% contribution) and a low share from private sources (20% contribution) (Baltagi, 2010).

Financial allocation is directly proportional to service delivery. Thus we currently find the fact that most of the health services are provided at the hospital level (Borzan, 2007; Healy, 2002, Radu, 2018). An increased share of these services could be provided by the family doctor or the specialist doctor in the specialized outpatient clinic. At the community level, medical services are poorly represented, with low funding.

Due to the way health services are provided and granted, we currently find a careful monitoring of expenses in the system, with a periodic reporting of health expenses (Roemer, 2002, Verboncu, 2005; WHO, 2021).

The present study analyzes health expenditures in Romania, highlighting total health expenditures and hospital expenditures. This analysis is crucial for understanding how to finance and monitor health services in order to implement the health system financing strategy.

MATERIAL AND METHOD

An observational, retrospective and descriptive study was carried out, based on official statistical data published in the field, the main source of data collection being the publication of the National Institute of Public Health - National Center for Statistics in Public Health (2022), Yearbook of Health Statistics 2021 (INSP- CNSISP, 2021).

The study analyzes health statistical data of health expenditures in the period 1980-2021. The data on health expenditures refer to the units belonging to the Ministry of Health, the Local Administration and the Romanian Academy. The data were collected from the level of the County Public Health Directorates - the statistical/informatics service in public health, from the reports sent by the health units and from the current works/publications of the National Center for Statistics in Public Health - the National Institute of Public Health and of the National Institute of Statistics.

RESULTS AND DISCUSSIONS

Due to the devaluation of the national currency (lei) during the analyzed period, two reference periods were used in the study: for total health expenditures, the periods 1980-1999 and 2000-2021 are analyzed, and for hospital expenditures, we find the periods 1980-2004 and 2005- 2021.

The value of the lei underwent considerable changes during the analyzed period, with considerable depreciations from one year to the next, due to inflation. After the events of December 1989, the currency regime in Romania was relaxed and the convertibility of the lei was explicitly pursued. On February 1, 1990, the lei exchange rate, both commercial and non-commercial, was unified at the level of 21.00 lei/USD (from 8.74 lei/USD for the non-commercial rate and 14.23 lei/USD for the commercial). But this new level of the lei exchange rate was not the equilibrium rate, so many other devaluations followed, the lei exchange rate already reaching 29,100 lei/USD at the end of 2004. In this situation, on July 1, 2005, the BNR took a correct decision to redenominate the currency by switching from the old lei to the new lei (heavy lei). An old 10,000 lei banknote was exchanged for a new one of 1 lei.

From the data published at the national level, an upward evolution of expenses in the

health sector can be observed in the period 1980-2021.

From the data published by INSP-CNSISP in the 2021 Health Statistics Yearbook, a 20-fold increase in RON can be observed in total health spending from 2000 to 2021. Expressed in Euros, the differences are insignificant. Thus, on December 31, 2020, one Euro was equal to 4.8694 Ron, and on December 31, 2021, the exchange rate indicated a Euro of 4.9481 Ron. Expressed in Euros, the total expenditure on health increases from 635.56 (millions) Euros in 2020, to 12792.42 (millions) Euros, which represents a 20-times increase.

The total expenses for health for one inhabitant, increase from 137.9 Ron in 2000, to 3309.9 Ron in 2021, which represents a 24-times increase. In Euros, the total health expenses for one inhabitant represented in 2000, 28.32 Euros, and in 2021 - 668.92 Euros.

The share of health expenditures in the Gross Domestic Product (GDP) fluctuates during the analyzed period from 3.9 in 2000 to 5.4 in 2021, with the lowest values in 2011 (3.5) and 2004 (3.6) and the highest values in . 2020 (5.2) and 2021 (5.4).

The evolution of total health expenditure, total health expenditure - for one inhabitant, share of health expenditure in GDP, in absolute values, represented in lei until 2004, then in RON, from 2005, are shown in table 1 and figures 1- 3 (source INSP-CNSISP).

Hospital expenses in absolute values, represented in lei until 2004, then in RON, from 2005 are shown in figures 4-6 (source INSP-CNSISP). The total expenses in hospitals gradually increased during the analyzed period. In the period 2005-2021, hospital expenses increased by:

- 6.5 times for a bed
- 10.5 times for a sick person
- 11.6 times for a day of hospitalization.

The evolving analysis of expenditures for drugs in hospitals also reflects a continuous increase in these expenditures in the period 1980-2021, figures 7-9 (source INSP-CNSISP). The total expenditure in the period 2005-2021 for medicines in hospitals increased by:

- 4.65 times for a bed
- 5.7 times for a sick person
- 8.5 times for one day of hospitalization.

In the year 2021, the share of expenditure on medicines from the total expenditure in hospitals was (figure 10):

- for a bed: 10.93%
- for a sick person: 10.92%

- for one day of hospitalization: 10.90%.

Table 1

Total health expenditure, total health expenditure – per inhabitant, share of health expenditure in GDP, in the period 1980-2000

An	TOTAL CHELTUIELI PENTRU SĂNĂTATE (milioane lei)*	TOTAL CHELTUIELI PENTRU SĂNĂTATE - pentru un locuitor	Pondereea cheltuielilor pt. sănătate din P.I.B.
1980	14235.3	641	fd
1989	18975.2	820	fd
1990	23500.4	1013	2.9
1995	210500	87434	2.9
1996	4496314.6	196630	fd
1997	6893009.6	305732	2.6
1998	11106978.6	493582	fd
1999	20968964.2	933696	fd

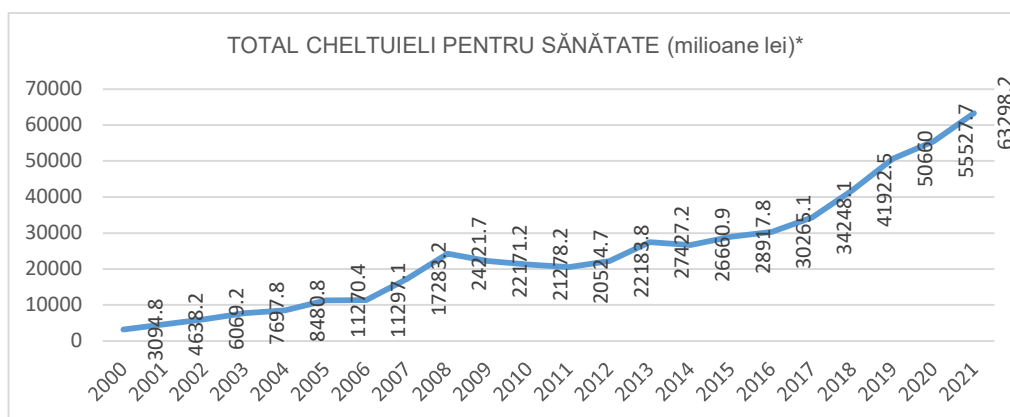


Figure 1 The evolution of total expenditures for health, in Romania, 2000-2021

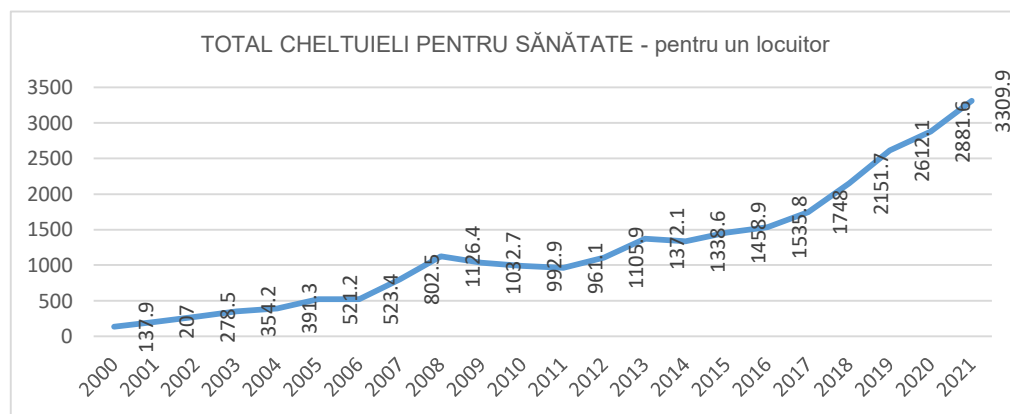


Figure 2 The evolution of total health expenditure per inhabitant, in Romania, 2000-2021

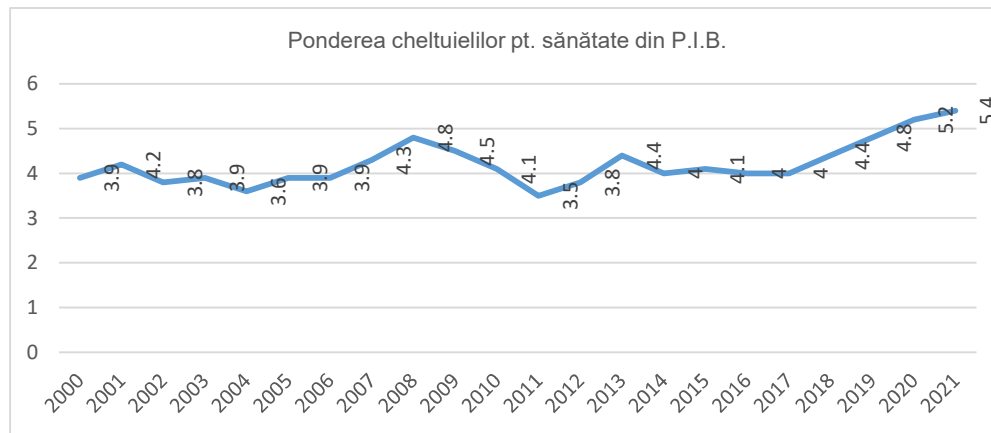


Figure 3 The evolution of the share of health expenditure in GDP, in Romania, 2000-2021

Table 2
Total expenses in hospitals by types of expenses (for a bed, for a patient, for a day of hospitalization) in the period 1980-2004

An	Total cheltuieli in spitale		
	pentru un pat	pentru un bolnav	pentru o zi de spitalizare
1980	37580	1463	133
1989	50235	2093	188
1990	62578	2894	253
1995	6014569	231585	21256
1996	9003737	329374	31627
1997	20558784	720349	71523
1998	38519779	1347745	134942
1999	79919077	2742001	134942
2000	111289321	3570806	404348
2001	163014911	4828955	560655
2002	209446582	5761265	707644
2003	253594762	6828560	849750
2004	316896586	8292785	1029173

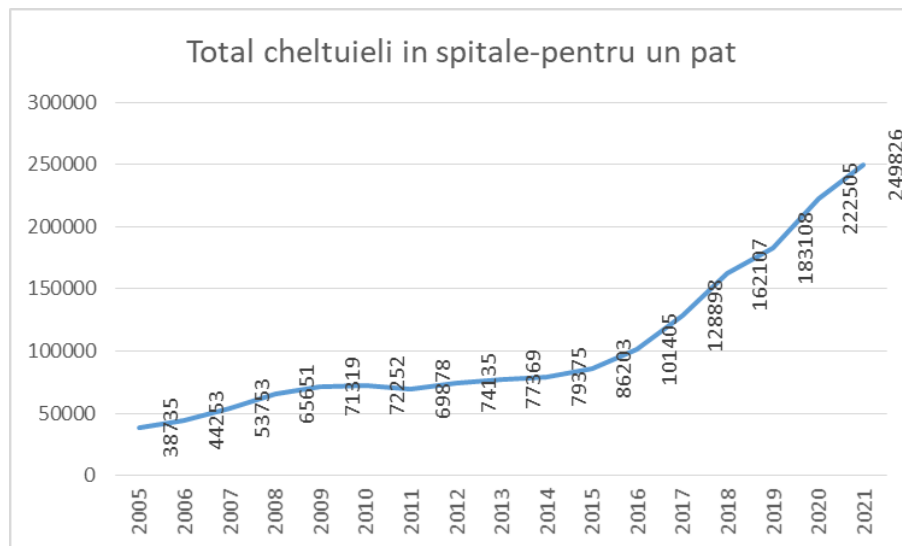


Figure 4 The evolution of total expenses in hospitals for a bed, in the period 2005-2021, in Romania

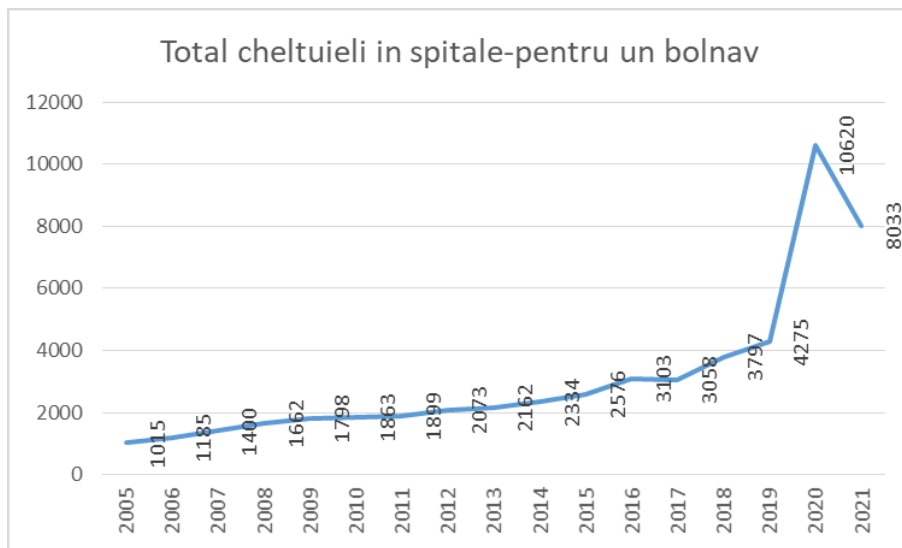


Figure 5 The evolution of total expenses in hospitals for a patient, 2005-2021, in Romania

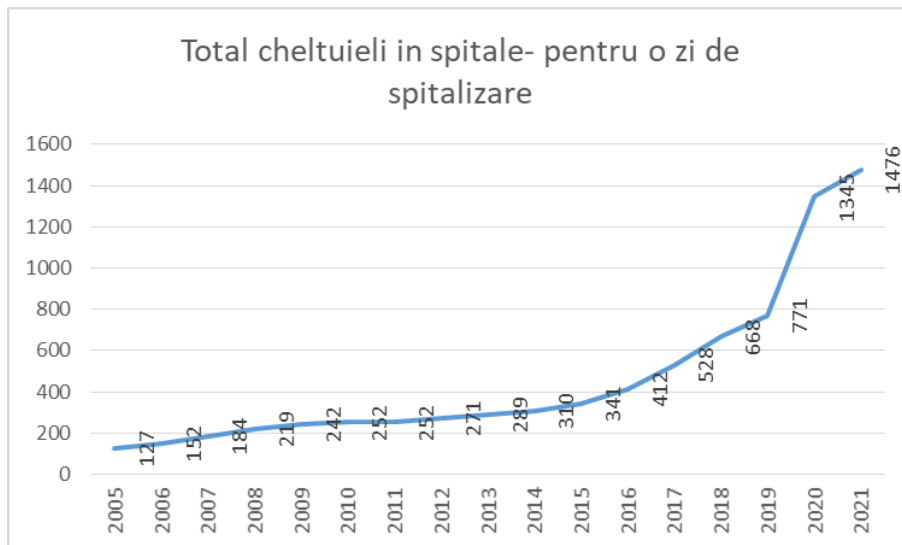


Figure 6 The evolution of total expenses in hospitals for one day of hospitalization, 2005-2021, in Romania

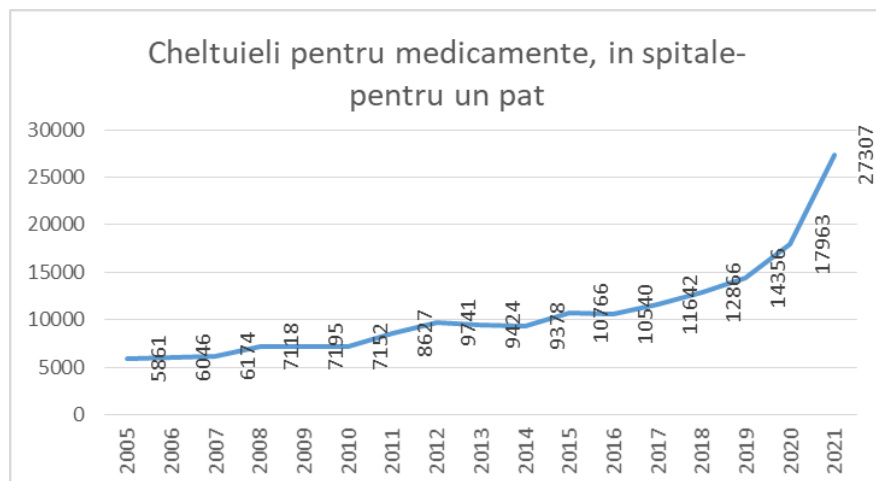


Figure 7 Evolution of expenditures for drugs in hospitals for one bed, 2005-2021, in Romania

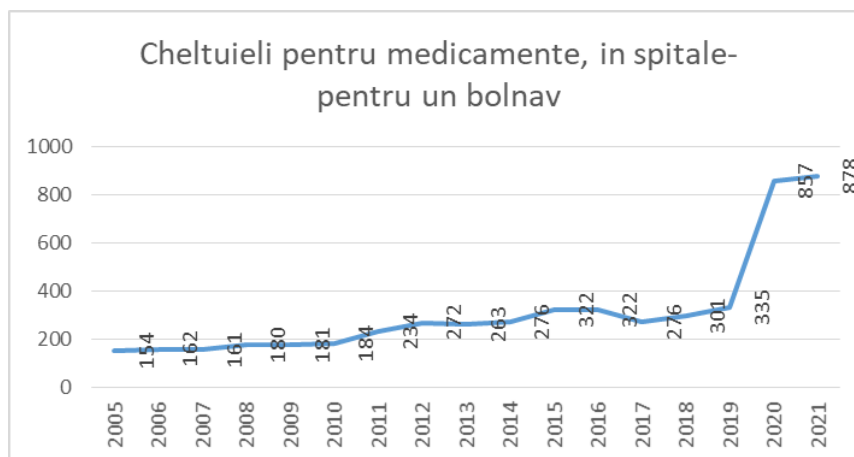


Figure 8 Evolution of expenditures for medicines in hospitals for one patient, 2005-2021, in Romania

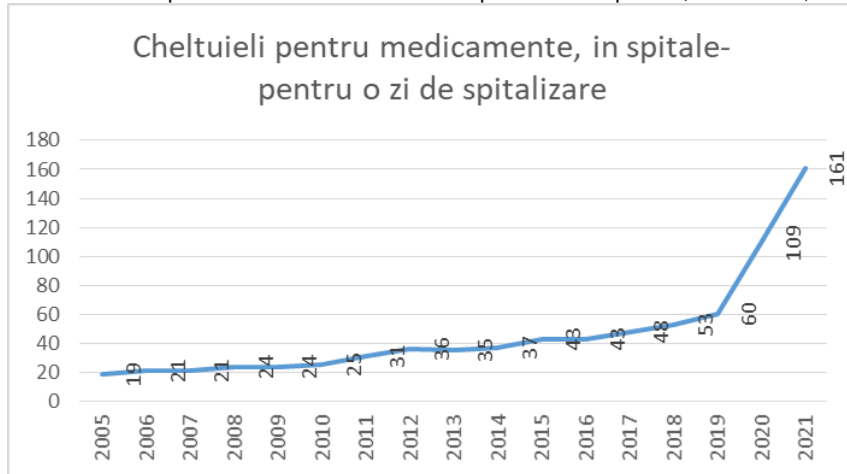


Figure 9 Evolution of expenditures for drugs in hospitals for one day of hospitalization, 2005-2021, in Romania

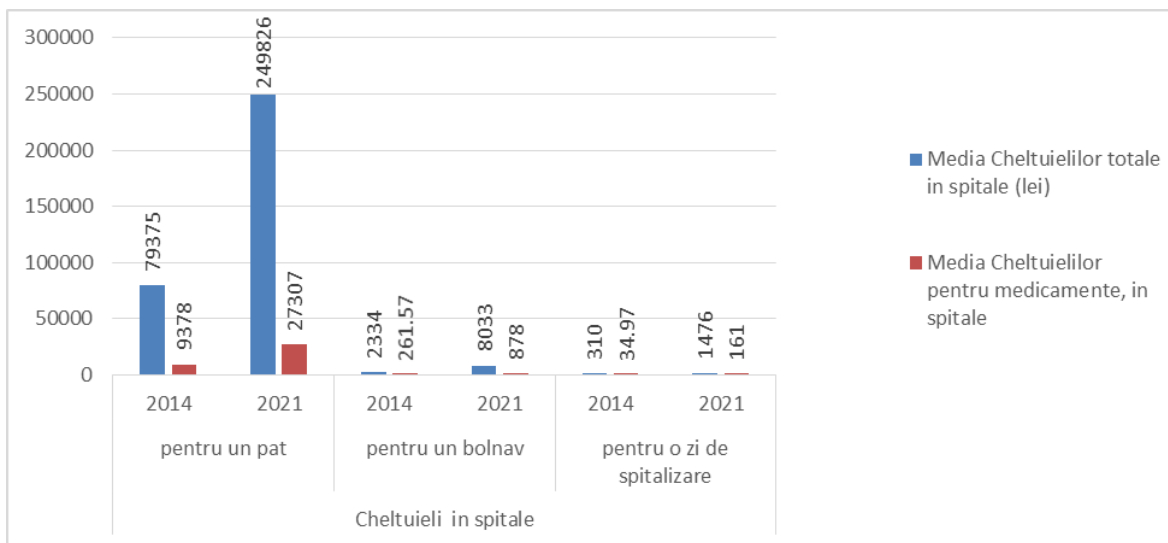


Figure 10 Average expenditures (total and drugs) in hospitals, 2014 and 2021, in Romania

CONCLUSIONS

Health spending in Romania increased significantly in the period 1980-2021. Health spending, both per capita and as a percentage of

GDP, remains low. Direct costs are high, especially those granted for drugs.

In Romania, there is a 20-times increase, in RON, of total health expenditures from 2000 to 2021. Total health expenditures per inhabitant increase 24 times, and the share of

health expenditures in the Gross Domestic Product (P.I.B), fluctuates during the analyzed period from 3.9 percent in 2000 to 5.4 percent in 2021.

The total expenses in hospitals gradually increased during the analyzed period. In the year 2021, the share of drug expenses in total hospital expenses was 10.9% (for one bed, for one patient, for one day of hospitalization).

REFERENCES

- Aubrey C., Daniels M., 2007, Managementul performanței: strategii de obținere a rezultatelor maxime de la angajați, Ed. Polirom, Iași.
- Ciurea AV., Ciubotaru V., Avram E., 2011, Management în unitățile medico-sanitare, Ed. Universitară.
- Văidean V.L., Mașca S., Cumpănașu E., 2010, Studiu privind metodele clasice de finanțare a serviciilor de sănătate, Revista de Studii și Cercetări Economice Virgil Madgearu, Anul III, Nr.1, Cluj-Napoca.
- EU Expert Group on Health Systems Performance Assessment (HSPA) 2020, Assessing the resilience of health systems in Europe: an overview of the theory, current practice and strategies for improvement.
- Koch H., 2005, Total Quality Management in Health Care, Longman, Essex, 1992: 63-74.
- Sinitchi G., Barliba I., 2008, Sisteme de sănătate europene, Rev. Practica medicală, vol. 3, nr. 3.
- Legea nr. 95/2006 privind reforma în domeniul sănătății, cu modificările și completările ulterioare.
- Baltagi B.H., Moscone F., 2010, Healthcare expenditure and income in the OECD reconsidered: Evidence from panel data, Economic Modelling, Vol. 27, Issue 4, pag. 804-811.
- Borzan CM, 2007, Noi abordări ale sănătății publice și managementului în regiunea europeană a Organizației Mondiale a Sănătății, Ed. Medicală Universitară Iuliu Hațieganu.
- Healy J., McKee, M., 2002, Implementing hospital reform in central and eastern Europe, Health Policy, vol. 61, no. 1, pp. 1-19.
- Radu C, Pana B, Furtunescu F., 2018, Drug Policy in Romania. Value in Health Regional Issues, 16:28-32.
- Roemer M., 2002, Encyclopedia of Public Health, National Health Systems, The Gale Group Inc.
- Verboncu I., Zalman M., 2005, Management și performanțe, Editura Universitară, București.
- WHO Regional Office for Europe, European Commission, European Observatory on Health Systems and Policies, 2021, COVID-19 Health Systems Response Monitor – Romania.
- INSP- CNSISP, 2021, Anuar de statistică sanitară.