

## **EMPIRICAL STUDY CONCERNING THE EXERCISE OF MANAGEMENT CONTROL IN THE HEALTHCARE SYSTEM FROM ROMANIA**

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*ABSTRACT: The objective of our study is to obtain a general picture of the Romanian healthcare system through which to identify its particularities financially, by presenting the advantages and disadvantages of the current system, describing resources and performances in relation to resources, and existing financing model description. Comparing the resources allocated to healthcare care systems results in global health system from Romania, our approach will aim to identify what exactly is state of the Romanian healthcare, which is the explanation financing of deficiencies and inequitable - determinant of public expenditure, most often reflecting ability to pay a health institution and not the degree population health.*

*Keywords: management control, healthcare system, costs.*

*JEL code: M41, I10*

### **Introduction**

Decision making process has become very complex and diverse due to the different situations which may arise in the work of any organization and, therefore, managerial accounting is a privileged source of information for managers, assisting them to making decisions, planning and control, context which confirms the relevance of the theme investigated.

*The main motivation for choosing this theme is the fact that, both in research and practice study and exercise of management control is made mainly in the private sector, public sector accounting and management control being rarely addressed. Management entity is based on the decisions that were taken from a good knowledge of internal and external factors that could influence its activity. Given the complexity of public healthcare institutions, especially public hospital units requires deep knowledge of the*

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organization and exercise management control as accurate as possible determination of costs, determining the positive / negative cost calculation and appreciation of their implications performance entities represents a constant necessity for decision making. Therefore, we appreciate the novelty character of the theme that we wanted to approach, and the usefulness of such an approach both public accounting professionals and experts from academia.

Based on non-allocation reasonable of funds for the provision of health care, consists the need for a system where health resources are allocated based on criteria such as transparency and medical records

The primary health care system should be the level of service provided and not the funding. The essence, in other words, is to increase the quality of health services provided, but also into meeting the needs of the population. For these reasons, derives importance accorded to the way with resources are used.

Concerning transparency of decision-making is recommended developing and publishing of reports multiannual about financing healthcare system. Currently, the state prepares so-called convergence programs.

In the resource allocation criteria we propose the distribution of population by age groups, local morbidity and income level, any other factors specific.

However, given also the irrationality of health care system in Romania, we can say that implementing a system of quality assurance in health care is impetuous required.

In terms of achieving the necessary measures system and propose a national strategy to ensure quality of healthcare services, making structures that will support the work to improve quality and, ultimately, development of a program for national training and quality assurance.

Health care establishments from Romania are currently experiencing the problem of a low level of financing services, medical technology is constantly evolving, demand increasingly larger and more diverse services, the need for wage growth in the public sector and the need to align standards European medical assistance.

### **Research Methodology**

In terms of current research predominantly, our approach be positioned in the current positivist. We aim to explain, through a detailed of a different sides of the issues and practical management control in a specific

environment, namely in the Romanian public health care system searching also to present also different ways to exercise management control.

At the same time, however can be found in this work, and interpretive and critical elements as we approach different concepts, regulations and practices in an interpretive manner (a neutral point of view) and critical (by engaging us a particular point of view), especially in relation to the activities the Alba County Emergency Hospital.

In this Report, we have approached the exercising management control in terms of quantitative research. This approach allows such empirical inductive lessons identified from the case studies to formulate generalized conclusions. Empirical case study includes financial and nonfinancial data analysis from the Emergency County Hospital, which allows obtaining answers about rationalizing costs of public hospital units.

Research methods used are: document analysis, comparison analysis method both observation - non-participating and participant observation, case study. Assuming that the need for a reasonable allocation of funds and optimizing their use persist in daily life, we analyzed the situation of hospitals in category II. This analysis allowed us to highlight weaknesses that our research will provide further working hypotheses.

#### **Study on the relevance of management in the healthcare system**

The majority of hospitals are funded for services provided primarily through funds received from the National Health Insurance House (CNAS), as well as direct budget allocations from central government and local authorities, which finance specific activities, such as emergency assistance, support services related to specific diseases (national health programs) also, in the case of some hospitals, training and research activities. Capital investments are funded from a separate budget of the Ministry of Health. Additionally, hospitals have the right to retain their receipts generated by the services rendered to individuals and private companies.

System of financing hospitals account for the "money follows the patient", but in reality this applies only partially to the county health insurance houses, and if the National Health Insurance, transfers to county houses not achieved based on well-defined criteria. Revenues from the National Health Insurance House for services provided for patients is more than 70 % of total revenue. These revenues are channeled through prospective payment system based on DRGs. Regarding costs, rigid rules linking staffing structure characteristics of the hospital, rather than the medical work itself. Personnel costs (salaries) are fixed, established by law

and, in most hospitals, more than 70 % of total costs. This gives managers a low level of control over the budget. In fact, the first priority is to pay salaries. The remaining funds are allocated to utilities, medicines, medical supplies and other expenses (food, laundry, security) .

We see therefore that financing healthcare system continues to be inadequate and used in an inefficient way. Despite an increase in total health expenditure share of GDP, the level of financing of the healthcare system from Romania remains low in a European context, especially given the long period of chronic underfunding also lack of investment from health.

Hospital sector from Romania constantly consume about 50% of the National Fund of Health Insurance (51.47% in 2006, 49.8% in 2007, 48.1% in 2008, 51.2% in 2009) , to which are added funds from the Ministry of Health to invest in infrastructure, healthcare equipment, national health programs and funds allocated by local authorities. All the funds go to a well above average proportion of 40% allocated to hospitals in the European Union, despite the fact that we are well below the European average amount allocated to continuing hospitalization per bed. For most hospitals, the National Health Insurance Single (FNUASS) continues to be single and predominant source financing although since 2002 created the legal basis by which local authorities could help support administrative expenses.

According to data centralized by the National Health Insurance after Romania joined the EU, 45% of the total budget CNAS reaches hospitals, the rest being divided as follows: 28% for medications also medical supplies (with and without personal contribution to chronic disease national programs), 12% for primary care and ambulatory (clinical specialties, laboratory, dental, etc.), 5% for insurance and social assistance, 4% for prehospital emergency services also medical transport (SMURD also ambulance), 3 % for medical services hemodialysis and peritoneal dialysis, 2% for administration of the Fund and 1% for other health expenses (medical devices, recovery, rehabilitation, home care).

Financial scheme of health insurance in Romania has created, it seems, a new "mammoth" administrative, yearly significant additional financial resources. One example is the National Health Insurance with over 300 employees and 42 county homes, with an average of 50 people / house, whose administrative efficiency related to the charges 2% of budget of the National Health Insurance is questionable.

A solution to reduce inefficient expenditure with hospitals is to promote primary health care through efficient allocation of public resources between health care and treatment; for example, more expensive services

predominate, hospitalization (45%) rather than the services provided by family physicians and ambulatory treatment (12%). Reports of the National Health Insurance show that spends disproportionately on hospital treatments (45% of the CNAs to under 40% in OECD countries) and invests very little in primary care (7% versus 25% in other European countries).

Concluding, we consider that the allocation of resources to hospitals is accomplished without cost-effectiveness study in non-transparent manner, not based on clear and consistently used. This situation in conjunction with a lack of consistent criteria for performance at the level of health institutions make it difficult to implement effective management systems to reward efficient managers. Reducing the tolerable limit of serious health expenditure generates consequences such as:

- lack of medicines and sanitary materials strictly required for the functioning and to provide the health services;
- maximum limit or even prohibition of certain investment of any kind for some periods;
- block posts left vacant, whether or not the hospital staff needed (use replacement policy of an employee in seven who leave the budgetary);
- prohibition of salary increases or granting various incentives salary for special results (not granting prizes, bonuses and vacation vouchers, food vouchers and compensation work performed outside normal working time, excluding the time off).

#### **Exercise of management control in Alba Iulia County Hospital**

Responsibility centers within the public hospital are established based on the organizational structure approved by the Alba County Council Decision dated 26.01.2012 and organizational structure approved by the Alba County Council Decision nr.166/18.10.2012.

Cost centers within County Emergency Hospital Alba are the emergency structures, sections / compartments with beds, Ambulatory specialty, Paraclinical laboratories, pharmacy, other functional structures – sterilizing, the operating room, transfusion point, etc. Supply, transport and public acquisitions, technical and administrative, accounting, finance, RUNOS, Statistics and medical contentious, Nosocomial infections, public relations, audit, management - general manager, deputy general manager, head nurse, administrative director, chief accountant.

The cost per patient is calculated in view of the direct costs, indirect and general.

*Direct expenses* shall be found in these cost centers:

1. Structures most urgent;
2. Sections / compartments with beds;
3. Ambulatory Specialty

Direct costs are constituted by:

- Personnel expenses of the cost center
- Material costs of the center
  - a) unidentifiable from each patient (light, heat, water, lingerie, inventory, etc.).
  - b) identifiable on patients
    - medications
    - nutrition allowance

Direct expenses are introduced at the patient level, in the department in which it is committed.

The result of the direct costs is to establish tariff / day hospital / ward and the cost of medicines and sanitary materials /department.

*Indirect expenses* shall be found in the following cost centers:

1. Paraclinical laboratories
2. Pharmacy
3. Sterilization
4. Transfusion Point
5. Bloc operator

Indirect costs are placed on the patient based on documents issued by cost centers mentioned and include:

- Personnel costs
- Material expenses related of medical services performed related of structures do not identify at the patient level and rates / benefit medical / patient.

The result of the indirect costs reflected in setting the price / performance / lab paraclinical, pharmacy, sterilization, transfusion point, block operator.

*General expenses* shall be at the following cost centers:

1. Supply, transport and public acquisitions
2. Administrative and technical
3. Accounting
4. Financial

5. RUNOS, Statistics and Medical Informatics, contentious, nosocomial infections, public relations, audit

6. Management - general manager, deputy general manager, head nurse, managing director, chief accountant.

General expenses are distributed based on allocation key approved by the hospital management and include:

a. personal expenses;

b. Materials and services expenses related of structures not identified at the patient level.

The result of the general expenses level is reflected in the establishment of price/day of hospitalization/supply, transport and public acquisitions, technical and administrative, accounting, financial, RUNOS, statistical and medical informatics, contentious, nosocomial infections, public relations, audit, management - general manager, medical director, chief financial accountant, treatment director.

#### *Department of surgery*

Surgery Department of Emergency County Hospital of Alba Iulia is the main insurer of surgical assistance of Alba county.

Salons of department has between 2 and 5 beds. There are also 2 private sanitary facility reservations. The bathrooms are reconditioned.

Block operator of surgical department has 5 operating rooms equipped with modern equipment and surgery and anesthesia. Is equipped with two surgical laparoscopes (Storz and Olympus), Zeiss operating microscope S 88, C-arm fluoroscope Phillips Libra, neuroendoscop Storz-Lotta, etc.

Department staff is composed of 6 primary physicians surgeons, neurosurgeons and plastic surgery and 4 physicians, who are assisted in their work by 72 nurses and staff.

Only in 2011, in section surgery were operated on with good results and safely 2700 patients. It is one of the first centers in the country to have introduced surgical laparoscopic surgery (1996).

Palette surgical services provided to patients include:

- *a general surgery services*: diseases of the abdominal wall (hernia, incisional hernias), abdominal trauma, pathology of the stomach and duodenum (peptic ulcer disease, tumors), pathology of the small intestine (occlusion, inflammatory diseases, tumors, vascular insufficiency), colon and appendix pathology (colon cancer, appendicitis), the pathology of the rectum and anus (rectal tumors,

hemorrhoids, anal fissures, perianal fistulas), pathology of the liver and biliary tract (liver hydatid cyst, some liver tumors, gallstones, biliary tumors), pancreatic pathology (pseudocyst tumors, hydatid cyst), pathology spleen, thyroid pathology, pathology of the arteries (arterial occlusive disease), pathology veins (varicose veins).

- *a neurosurgical services*: brain pathology, spinal and peripheral nerve pathology, surgery pain.
- *a plastic and reconstructive surgery services*: Dermatologic Surgery, Hand Surgery, Microsurgery, Trauma, Reconstructive surgery, treatment of congenital malformations, obesity surgery, genital surgery, treatment of complications of other diseases, different cosmetic surgical procedures.

After an analysis of the work of this department, as cost center, we have seen a number of developments / regress of the main indicators as well as the associated costs. The analyzed period extends over three fiscal calendar 2010, 2011 and 2012; we had as unit calendar month and up used is a period of 6 months. Therefore we studied an evolution of the main indicators of the department from March 2010 to September 2012.

### Activity financial indicators Department of Surgery Alba Emergency Hospital

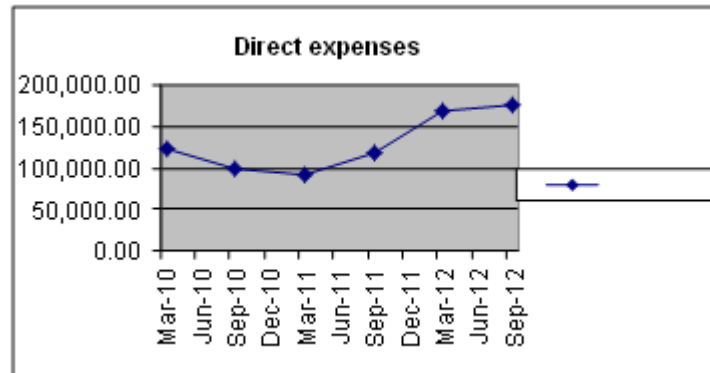


Figure no.1 Evolution of direct expenses within surgery department during the period March 2010-September 2012

Source: Own processing (Database of Alba Emergency Hospital)

In the surgical department, we see an increasing trend in the period of direct expenses related to patients. This is justified to some measure by



increasing the number of hospitalized patients. However, the hospital management must adopt measures to reduce these expenses.

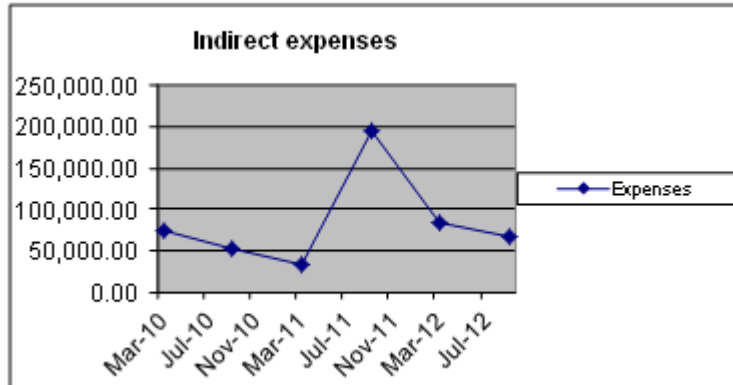


Figure no.2 Evolution of indirect expenses within surgery department during the period March 2010-September 2012  
Source: Own processing (Database of Alba Emergency Hospital)

In period analyzed, within surgery department it is noted a positive aspect: the reduction of indirect expenses that will be allocated to the cost per patient. This decrease indirect expenses are due to the fact that the unit manage their resources more efficiently.

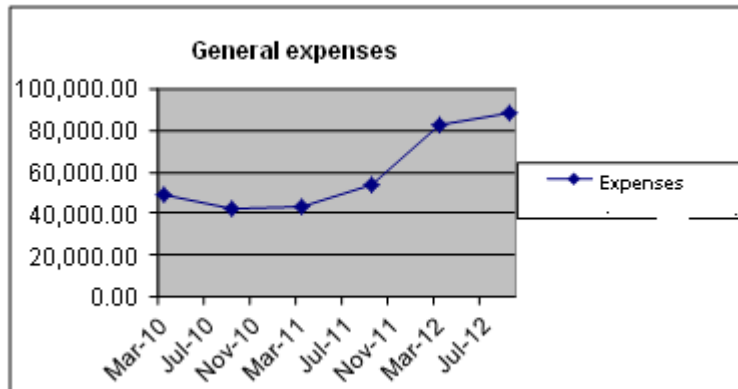


Figure no.3 Evolution of general expenses within surgery department during the period March 2010-September 2012  
Source: Own processing (Database of Alba Emergency Hospital)

General administration expenses are increasing. This is due mainly to the complexity of device management and organizational structure of the hospital unit.

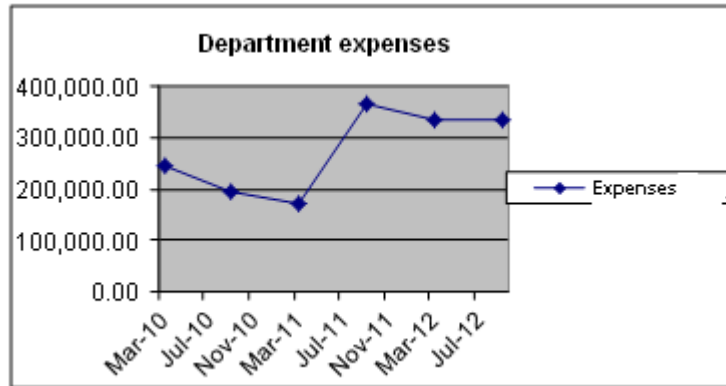


Figure no.4 Evolution of department expenses within surgery department during the period March 2010-September 2012

Source: Own processing (Database of Alba Emergency Hospital)

The total expenditures of the department experienced substantial growth in 2011, which is based on the indicators presented above. They are all within a deepen correlation.

$$\text{Evolution of average cost / patient} = \frac{\text{total expenses.of .department}}{\text{number.of .patients}}$$

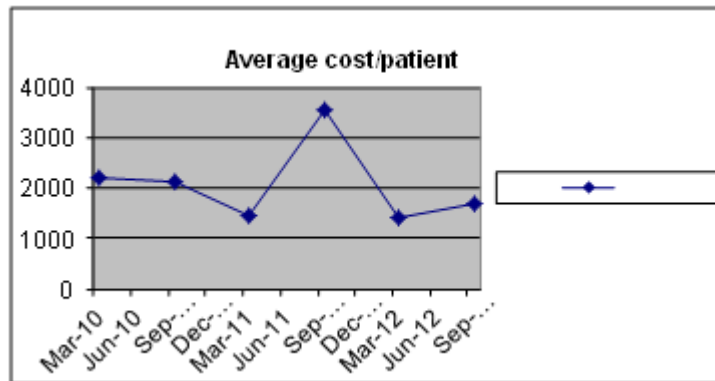


Figure no.5 Evolution of average cost/patient during the period March 2010-September 2012

Source: Own processing (Database of Alba Emergency Hospital)

The average cost / patient register a spectacular ascension in 2011, and then returns at constant values for - 2000 Ron / patient.

$$\text{Evolution of average cost / hospitalization day} = \frac{\text{total.expenses.of.department}}{\text{number.of.hospitalization.day}}$$

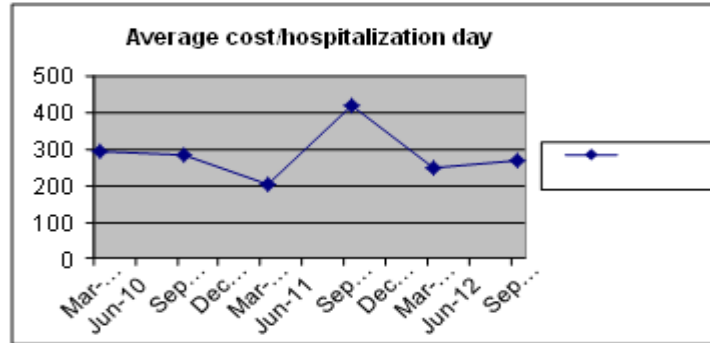


Figure no.6 Evolution of average cost/hospitalization day during the period March 2010-September 2012

Source: Own processing (Database of Alba Emergency Hospital)

The average cost / day hospitalization is situated around 300 RON, excluding September 2011 when knowing that the growing trend, a trend explained when considering other indicators.

$$\text{Evolution of average cost / bed} = \frac{\text{total.expenses.of.department}}{\text{number.of.beds}}$$

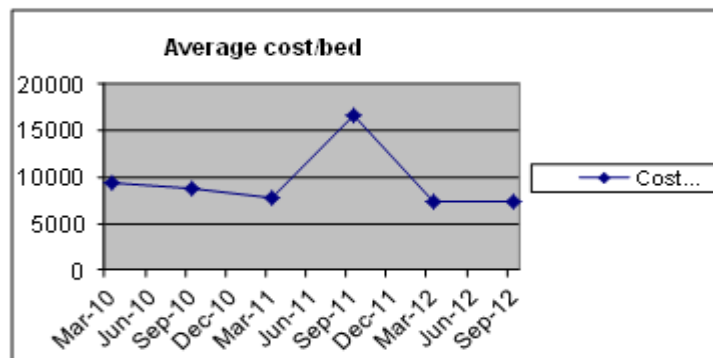


Figure no. 7 Evolution of average cost / during the period March 2010-September 2012

Source: Own processing (Database of Alba Emergency Hospital)

The average cost / bed is an indicator relatively constant during the period under review. Although go up slightly reduction only exception being in September 2011.

#### **Critical analysis-control management based on cost centers**

One of the aims of management control is to meet the needs of coordination of the decentralized entities.

The *advantages* of decentralization consists in:

- facilitates "general direction" of current management problems by focusing attention on strategic issues;
- approaching decision makers with her customers - patients (allows better targeting the supply of medical services to the needs of patients);
- Improves reaction speed reducing public hospital decision circuit;
- Increase the motivation of medical staff, giving them greater autonomy of decision;
- Also contributes to the classification of managers at the intermediate level (section, department, service) field expanding skills.

In the area of decentralization *disadvantages* are:

- can lead to local decision making, inadequate at a general level;
- Increase consumption of resources as a result of certain activities;
- Increase the need for coordination.

Management control evaluate performance of decentralized entities analyzing the causes of deviations between goals and results. However, management control must identify the real responsibility of a center where it has not achieved its objectives. This latter must be justified to the hierarchically superior bodies to take measures such as reducing hazards; dismissal (dismissal) officials; closure of the facility.

#### **References**

1. Ionașcu, I., (coord.), *Control de gestiune*, Second edition, ASE Publishing House, București, 2002
2. Kaplan, R.S., Atkinson, A.A., *Advanced Management Accounting, Third edition*, Prentice Hall International Press, 1998,
3. Klein, R., *The New Politics of the NHS: from creation to reinvention*, Radcliff Publishing, Oxford, 2006
4. Kumar, R., Goel, S.L., *Hospital Administration And Management: Theory And Practice*, Deep & Deep Publications Ltd, New Delhi, 2007

5. Mincă, D., *Sănătate publică și management sanitar*, Carol Davila Publishing House, București, 2005
6. Nowicki, M., *The Financial Management of Hospitals and Healthcare Organizations*, Health Administration Press, Chicago, 2008
7. Olteanu, M. (coord.), *Renașterea sistemului sanitar printr-o reformă bazată pe dovezi*, I.D. International Technoprint, București, 2005
8. Opincaru, C., Imbri, E., Gălățescu, E., *Managementul calității serviciilor în unitățile sanitare*, C.N.I. Coresi Publishing House, București, 2004
9. Oprea, C., Man, M., Nedelcu, M.V., *Contabilitate managerială*, Didactică și Pedagogică Publishing House, București, 2008
10. Păunescu, M. (coord.), *Health and Social Change. A Critical Theory*, Open University Press, Buckingham, 2002
11. Roemer, M.I., *National Health Systems of the World, vol. II: Issues*, Oxford University Press, New York, 1991
12. Scambler, G., *Management public în România*, Polirom Publishing House, Iași, 2008
13. Scorțe, C., Farcaș, M., Bogdan, V., Balaciu, D., Modernizarea contabilității de gestiune prin metoda ABC, în *Analele Universității din Oradea. Științe Economice, Tom XIV, 2005*
14. Tabără, N., *Contabilitate și control de gestiune. Studii și cercetări*, Tipo Moldova Publishing House, Iași, 2004
15. Tabără, N., *Control de gestiune*, TipoMoldova Publishing House, Iași, 2009
- Tabără, N., Briciu, S. (coord.), *Cercetări privind modernizarea în contabilitate și control de gestiune*, Tipo Moldova Publishing House, Iași, 2011
16. Tănăsescu, P., *Managementul financiar al activității sanitare*, Tribuna Economică Publishing House, București, 2001
17. Tănăsescu, P., *Economia sanitară și management financiar*, Rao Publishing House, București, 2003
18. Vlădescu, C., *Politica de reforma a sistemului de sănătate din România*, Infomedica Publishing House, București, 1999
19. Vlădescu, C., *Managementul serviciilor de sănătate*, Expert Publishing House, București, 2000
20. Vlădescu, C. (coord.), *Sănătate publică și management sanitar. Sisteme de sănătate*, Cartea Universitară Publishing House, București, 2004
21. Young, D.W., *Management Accounting in Health Care Organizations*, Jossey-Bass Publisher, San Francisco, 2003

22. Vlădescu, C., Dragomireșteanu, A., Enăchescu, D., *Politici de alocare a resurselor și de planificare a personalului medical în sistemele de sănătate. România în context internațional*, Centrul pentru Politici și Servicii de Sănătate Publishing House, București, 2001
23. Webster, W., *Accounting for managers*, McGraw-Hill Irwin, 2004
- \*\*\*, Școala Națională de Sănătate Publică și Management Sanitar, *Managementul spitalului*, Public H Press Publishing House, București, 2006
- \*\*\*, Școala Națională de Sănătate Publică și Management Sanitar, *Management spitalicesc pentru directorii financiar-contabili și administrativi*, Public H Press Publishing House, București, 2007
- Articles**
24. Albouy, V., Davezies, L., Debrand, T. , Dynamic Estimation of Health Expenditure: A new approach for simulating individual expenditure, *Institute for Research and Information in Health Economics, Working paper*, no. 20, 2009/01, <http://www.irdes.fr/EspaceAnglais/Publications/WorkingPapers/DT20DynamicEstimationOfHealthExpenditure.pdf>
25. Andrei, T., Mitruț, C., Constantin, D., Oancea, B., Analiza impactului procesului de descentralizare din România asupra rezultatelor din sistemul public de sănătate, *Revista Economie Teoretică și Aplicată*, vol. 10(539)/2009, pp. 17-22
- Armean, P., Analiza sistemelor de sănătate din perspectiva calității, *Revista Management în Sănătate*, nr. 3 (2002)
26. Arnaboldi, M., Lapsley, I., Modern Costing Innovations and Legitimation: A Health Care Study, *Abacus*, vol. 40, issue 1, February 2004, pp.1-19
27. Arnaboldi, M., Lapsley, I., Activity Based Costing in Healthcare: A UK Case Study, *Healthcare Financial Management*, vol. 10, no. 1 (2005), pp. 59-73
28. Bara, A.C., Heuvel, WJA van den, Maarse, J., Reforms of the Health Care System in Romania, *Croatian Medical Journal*, nr. 43(2002), pp. 446-252
29. Borger, C., Smith, S., Truffer, C., Keehan, S., Sisko, A., Poisal, J., Clemens, M.K., Health Spending Projections Through 2015: Changes on the Horizon, *Health Affairs*, vol. 25, no.2 (2006), pp. 61-73, disponibil la <http://content.healthaffairs.org/content/25/2/w61.full.pdf+html>
30. Busse, R., Schreyögg, J., Smith, P.C., Hospital case payment systems in Europe, *Health Care Management Science*, vol. 9 (2006), pp. 211-213,

disponibil la <http://www.observatorysummerschool.org/pdf/HCMS-DRG-Editorial.pdf>

31. Capps, C., Dranove, D., Lindrooth, R.C., Hospital closure and economic efficiency, *Journal of Health Economics*, vol. 29 (2010), pp. 87-109, disponibil la <http://www.sciencedirect.com/>

32. Cardinaels, E., Roodhooft, F., van Herck, G., Metoda ABC (Activity-Based Costing). Principiile gestiunii pe activități, *Revista Economie Teoretică și Aplicată*, nr. 432/2005