Cost Management of Healthcare Organizations for Financial Sustainability

SCIENTIFIC ARTICLE
UDK 005:338.5]:614.2
DOI: 10.56362/Rev24105047M

Stefan Milojević[1]*
Snežana Knežević[2]
Malči Grivec[3]
Olivera Đokić[4]

Summary: *Healthcare providers in a dynamically changing environment are under pressure to control the rapid growth of healthcare costs, which is greatly assisted by internal audit. Healthcare organizations today face a myriad of challenges as they try to adapt to demands for better quality and reduced costs. Health service production needs methodologies based on the specific characteristics of health care. Management-based segmentation methods reveal that emergencies, continuous care, prevention and treatment have different logics of value creation, waste, demand, and finance. Healthcare operations management focuses on organising resources and flows so that given goals, costs and clinical quality and patient experience can be achieved with the available resources. In this context, the purpose of this paper is defined, which is to point out the specifics of cost management in healthcare organisations.*

Received: 01.01.2024.
Accepted: 01.04.2024.
Published: 28.06.2024.

Keywords: *costs, healthcare organization, control, internal audit*

INTRODUCTION

Everything is under good control.

Managers in healthcare organizations make decisions in order to lead their organization towards the realization of the set goals. These decisions are about how to ensure that their organizations translate strategic or other goals into action. To do this, they need financial and other types of information. An accounting information system provides financial and cost information to managers to aid in decision making.

[1] EDUCONS University, Faculty of Business Economics, Belgrade, Serbia.
E-mail: stefan.milojevic@educons.edu.rs

* Corresponding author.

[2] Faculty of Organizational Sciences, University of Belgrade, Serbia.
E-mail: snezana.knezevic@fon.bg.ac.rs

[3] University of Novo mesto, Faculty of Economics and Informatics, Slovenia.
E-mail: malci.grivec@uni-nm.si

[4] University of Banja Luka, Faculty of Medicine, Bosnia and Herzegovina.
E-mail: oljaisara@gmail.com

Cost management in healthcare organizations is critical to ensure sustainability, efficiency and quality healthcare delivery. When looking at today's health care services, it is noted that this is accomplished in organizational settings such as hospitals, nursing homes, clinics, surgery centers, group model health maintenance organizations (HMOs), physician offices, and home care programs. The organizational environment itself has the ability to integrate physical facilities (resources), professional expertise, skills, information systems, technology and other forms of support necessary to provide modern health services, regardless of whether these services are curative, rehabilitative or preventive (6). The health system, as one of the most complex systems of any country, is a very important issue. The unsustainable growth of health care expenditures requires an effective cost containment policy (28). Also, it is important to emphasize the importance of education and training of financial managers in healthcare organizations in order to effectively manage the resources entrusted to them (22).

Dynamic and turbulent changes occurring in the environment require, when it comes to health care in various segments, the highest quality management. It is expected to respond to various challenges that accompany the provision of services within health care. The intensity of healthcare delivery has reached a level where sustainability is becoming a challenge for some of today's healthcare organizations. Instead of the traditional approach, where patients visited the Health Center, now health institutions are increasingly adapting to new service delivery models. These include satellite outpatient services, outreach programs, mobile mammography units and the organization of health fairs.

Faced with a shortage of nurses whose expertise and assistance are critical to quality health care, health care providers (hospitals, surgical centers, physician groups, or any entity or person providing care to patients) have tried to protect themselves from closing patient care units and clinics due to shortages of nursing staff, by training other staff to perform many of the unregulated functions previously performed by nurses.

People who are sometimes called "multiskilled professionals" or certified nursing assistants, perform a variety of tasks, including taking temperatures, dispensing medications, drawing blood and other samples and providing a variety of services to patients, such as turning, exercising and ambulating. These individuals are not only easily employable, but also have lower hourly wages compared to nurses, which lowers labor costs for health care providers. However, this well-intentioned practice has sparked union activity among nurses and their unions, who advocate for the preservation of nurses' jobs in certain organizations (6).

Medical interventions whose purpose is to extend the life expectancy of patients can result in additional consumption of medical goods and services in the so-called "additional years of life." By additional years, we mean those years that patients would not have experienced without intervention. While some of this medical spending in additional years is directly related to the intervention, other costs in additional years are not. The latter costs are usually labeled as "unrelated medical care" costs. An example of this

type of cost is the cost of treating dementia in additional years due to successful cancer treatment. Although there is general acceptance of the idea that future medical costs should be considered in the economic evaluation of health interventions, there is considerable discussion in the theoretical literature about the inclusion of future unrelated medical costs in these (economic evaluations) (1).

The work is organized as follows. Organizational development and cost management in the health care system are discussed in the first chapter. The second chapter deals with the key types of costs from the point of view of their importance for the financial management of healthcare organizations. The third part examines the modalities of identification of health care costs and the role of the control system in that domain with special reference to internal audit. After that, concluding remarks and a list of used literature were given.

ORGANIZATIONAL DEVELOPMENT AND COST MANAGEMENT IN THE HEALTHCARE SYSTEM

Healthcare systems and organizations have a strong tendency towards excellence, which should be regularly encouraged for sustainable development. Organizational development outcomes may include increasing:

- profit (or cost reduction for non-profit organizations);
- innovation;
- customer satisfaction;
- quality of products and services;
- profitability;
- organizational flexibility;
- personal sense of efficiency; and
- job, work and life satisfaction (32).

When the term "accountable health care organization" (ACO) is used, we mean such a model of a health care system that is characterized by the ability to provide and manage patients in the continuum of care in various institutional settings, including at least ambulatory and hospital care and possibly post-acute care in some cases. It is a payment that is consolidated, not "a la carte", and is therefore generally treated as cost-effective and "bundled." In addition, such models are focused on managing budgets and resources, and provide sufficient information to support comprehensive, reliable and relevant performance measurements. The ACO model is meant to encourage efficient care delivery, and is one of the tools to manage health care costs, particularly „Medicare" (the national health insurance program in the United States) costs, and is gaining traction among policymakers desperate to control costs and improve the quality of health care. At the same time, it should be borne in mind that cost reduction requires

investments, as well as that the joint savings may be greater than the investment in health care coordination and prevention. New technological applications are usually expected to increase health care costs. However, that is a one-sided opinion. Namely, they can also lead to savings in the long term, as, for example, when long-term diagnostic methods are more effective and facilitate targeted therapy (Kulvik et al., 2016).

The issue of efficiency is inseparable from the issue of control. Three different types of control systems can be discussed:

- anticipatory (preventive or in advance),
- simultaneously (in the process or during the event) and
- control through feedback (reactive or after the event).

These control systems assess whether:

- deadlines and time limits are met (time controls),
- appropriate quantities of listed parts, that is, materials are consumed (material controls),
- all types of equipment functioned correctly (equipment control) and
- the product or the service is delivered at the intended price (cost control).

However, there is a notable lack of cost accounting literature specifically focused on the health care field. This indicates the need for additional research and analysis in this area, in order to better understand the specific challenges and cost characteristics of the health sector domain. Further development of special models and methodologies for cost accounting in better resource management of healthcare organizations is imperative, when it comes to making valid decisions. In addition, we point out the importance of the development of control systems in the area of monitoring the costs of healthcare organizations.

COST BEHAVIOUR AND FINANCIAL REPORTING

A topic that deserves special attention is cost management. Physicians who wish to positively impact patient well-being must acquire expertise in business and management tools that will help achieve the larger mission of providing cost-effective and meaningful health care (Propp, 1999). Budgets are used to help management control costs associated with services and products against projected or standard cost. Looking at costs within the category of business expenses in the income statement, their categorization into costs according to function (costs of production, sales, administration and distribution) and costs according to nature (costs of materials, costs of receiving employees, depreciation costs and other business costs) is highlighted.

In order to effectively manage costs, it is necessary to know their modalities and characteristics. Several types of costs are indicated below: fixed and variable, hybrid/

mixed, irrelevant, differential, controllable, opportunistic, irrevocable (sunk), relevant, current (carrying), future costs, labor and related human resources, unavoidable and avoidable costs (20).

It is often emphasized in the literature on cost management that volume (activity) is considered the most unstable variable in business, and the classification of costs into fixed and variable is by far the most useful classification of costs in management accounting. Cost behavior studies are concerned with how costs change in response to variations in activities, services, or usage. Fixed costs do not vary depending on the level of patient activity, and when it comes to sunk costs, they cannot be easily reversed. Most of the costs can be characterized as fixed and irreversible (sunk) costs when it comes to healthcare, and there is a claim that they are not relevant for rational decision-making, which is often presented as one of the basic principles of economics (31).

Fixed cost can be viewed in total or per unit. These are costs related to capacity. These are costs that remain the same in total within the appropriate range, but change per unit as a consequence of changing activities. Above the relevant production range, fixed costs will vary. For example, the rent of the clinic does not increase if the opening hours are extended to Saturday or Sunday. Total fixed costs are usually not affected by changes in activity (e.g. space lease, taxes, insurance, depreciation, employee and key personnel salaries). Rent is still paid even if there are no patients. The fixed cost remains constant, within the relevant range, even if the level of activity changes (i.e. summer or winter slowdown). However, unit fixed costs vary with output. Thus, fixed costs decrease per unit as the level of activity rises and increase per unit as the level of activity falls. In general, decisions or changes do not change fixed costs in the short run. They remain constant in total across a wide range of clinic activities, and vary inversely with unit or patient activity.

Costs that remain the same per unit, but change directly as activity changes over a corresponding range, are variable (proportional costs). In other words, total variable costs rise and fall proportionally to performance, ie. volume of activity, while the variable cost per unit of performance (activity) will remain constant, i.e. a constant value relevant to each volume of performance (activity) within the available capacity (Malinić et al., 2012: 217). Variable cost changes overall in direct proportion to changes in the level of activity, but is constant per unit. Clinic costs that typically vary with the scope of activity include: direct material costs, indirect labor, and indirect material costs such as utilities, air conditioning, administrative costs, and other medical supplies. In general, variable costs change as a direct result of decision-making or changes in course of action.

A mixed (semivariable) cost is one that contains both fixed and variable elements, and is considered a heterogeneous cost. For example, electricity customers may have a monthly minimum bill regardless of how much electricity they use. This would be the fixed element and the amount used over the fixed minimum would be the variable element. Although it is recognized that this type of cost may vary from clinic to clinic, internal consistency is important for cost behavioral purposes. For example, an x-ray

unit is rented for $3,000 per year, plus $10 per film. In this case, the annual lease is a fixed element, while the film charge per unit varies depending on usage. In the case of mixed costs, it is important to highlight the need to separate them into a variable and fixed part or possibly predominantly determine these costs as fixed or variable as a whole, and according to their predominant character, in order to support the process of planning and cost control.

An irrelevant cost is not associated with a specific healthcare product, department, procedure, intervention, drug, patient or service and includes "step-down" costs, direct and indirect costs. "Step-down" costing is at the top of the hierarchy, where the primary center provides resources to other cost centers, such as human resources or nursing. Costs from the primary center are allocated to other centers. Then the primary center is closed and no other costs are attributed to it. The division of costs into direct and indirect costs is related to their differentiation according to the possibility of their connection to the final effects. Namely, the cost is not direct or indirect by its nature, but by the organization's ability to track it according to the cost object. Direct (individual) costs are costs (e.g. care costs) that an organization can track to a specific cost object (e.g. a patient). In other words, a direct cost can be traced to its destination and can be traced separately to the performance of the procedure, and does not require a conditional base (key) for allocation to effects. The costs associated with the intervention can be classified into different categories. Unlike indirect costs that are allocated according to the corresponding keys, direct medical costs are related to the patient's medical care and can include items such as hospitalizations, drugs, visits to professionals, etc., residential, social care) or are borne by patients and their families, such as "out-of-pocket costs" for various items related to health care. In addition, in this context it is important to point out that productivity losses are actually opportunity costs that reflect the loss to society caused by patients not being able to work during treatment, either because of their illness or side effects, or because of premature mortality, or because relatives have to take time off to provide informal care (19). A greater number of performed procedures is accompanied by higher direct costs. In a medical clinic or hospital, radiographs, surgical supplies and other procedures can be traced back to a specific patient, while the birth is traced back to the organization's staff. The indirect cost must be allocated to the general costs of the clinic and not specifically allocated to the relevant cost holder. Expenses such as rent, mortgages, or the office manager's salary are constant. They have nothing to do with frequency of use.

Any cost that is characteristic of one alternative, but is excluded in whole or in part by another alternative, is known as a differential cost. The difference between the costs associated with alternative courses of action on an item-by-item basis is the basis of differential cost. Differential cost is the key to a specific decision, and often incremental costs are equal to variable costs. If the differential cost increases, it is called incremental cost (15).

A controllable cost is one that occurs at a certain level of a clinic or healthcare entity if the "executive" physician has the power to authorize the cost. There is a dimension of

risk/benefit and time to controlled costs. For example, costs that are controllable in the long run may not be controllable in the short run. However, in the long run, all costs are variable and subject to control.

An opportunity cost is a potential advantage or benefit that is either sacrificed or lost when choosing one course of action over another. It is also known as either/or decision, when by choosing one, another, also profitable option is rejected (33), that is, as the cost of a missed opportunity to use resources. All decisions have opportunity costs associated with them. They are specific in that these costs are not entered into accounting records but are considered either explicitly or implicitly when making decisions (12). For example, if a doctor, a young ophthalmologist, is invited to speak at a local club meeting about a new surgical eye technique, will the publicity he receives help his reputation enough to make up for the actual time and income lost during his absence from the office? Some intangible opportunity costs cannot be calculated mathematically.

An irrevocable (sunk) cost is a cost that has already occurred and cannot be changed by any decision, either now or in the future (32). Therefore, these are the costs that are not completely affected by the management's choice between the alternatives it is considering. They are not differential costs, for the reason that current decisions cannot help with irrevocable costs. In business, sunk costs are usually not taken into account when making future economic decisions (irrelevant), precisely because they are considered irrelevant to current and future budget problems. For example, it could be a luxurious new treatment. Heath (10) identified that it is much easier for people to monitor the expenditure of money compared to monitoring the expenditure of time or effort, and this finding stems from the fact that this preference stems from the fact that people are more accustomed to budgeting for money than for time or effort. .

A relevant cost can be avoided as a result of choosing one alternative over another. All costs are considered avoidable, except for irrevocable and future costs that do not differ between alternatives.

Carrying costs represent the costs of maintaining inventory at the clinic, in the office or in the warehouse. This type of cost includes rent, utilities, insurance, taxes, employee costs (e.g. labor and human resources costs, wages, fringe benefits, holiday pay, vacation pay, etc.), as well as opportunity costs of owning space or "tied up" capital.

Cost data must be accumulated for both external financial accounting and internal management purposes. It is important to monitor historical costs, but also to look at future costs. Cost accounting provides management with accurate, timely information for planning, controlling and operating the company. Thus, future costs represent forward-looking decision-making that is relevant to the process of choosing alternatives. There are two types:

- Avoidable future costs may be eliminated or saved if the activity in question is preserved, eliminated or discontinued. For example, salaries and administration costs may be reduced if a hospital has 19% of its beds retired.

- Incremental future costs represent a change in relation to a specific management activity (eg starting or expanding a service, closing or opening a department, acquiring new equipment). For example, the incremental cost of signing a capitation health care management contract would generate 100 new patients next year. In principle, "incremental costs are additional costs related to changing the business portfolio or the level of business activity" (17). Incremental costs may consist of additional costs of required materials, additional labor costs and additional energy costs for equipment, and direct and indirect variable production costs should be considered.

Labor or related human resources usually make up a large portion of the overhead costs of a healthcare entity or physician's office. A few non-specific labor costs are presented below.

- The costs of working in free time represent the costs of an office worker (direct office work) who is unable to perform his tasks due to power outages, downtime, etc.
- Overtime premium costs are overtime premiums paid to all healthcare workers (direct and indirect labor) and are considered part of general overhead costs.

Unavoidable costs are those that are generally more fixed in nature and cannot be eliminated, even if the healthcare organization takes certain actions, as opposed to avoidable costs that can be avoided. A company should try to have avoidable costs, as these can be eliminated if the company experiences financial distress.

Controlling healthcare costs is a challenge in any hospital. In fact, the escalation of health care costs due to changes in the age distribution of the population increases the level of expectations for health care services, and the application of new technologies for the provision of health care encourages governments to come up with solutions to reduce costs. As a result, there is a need for more accurate data on the costs of health services, which is useful for policy making as well as for internal management decisions (24).

There is no effective cost management without the application of state-of-the-art statistical analysis of health care resource utilization and cost data. A more rational use of resources can be directed to various activities, such as, for example, folding beds in the intensive care unit, improving the efficiency of the operating theater and rationalizing health care capacity (Coleman, 2010). However, it is important to point out that there is no single or dominant method that is optimal for all costing applications. Many of the diagnostic techniques used to choose between different options have limitations that require further investigation. The literature related to cost estimation, especially in the context of cost-effectiveness analysis and econometrics in health care, has developed independently and independently.

The list of relevant costs and outcomes includes the following key components:

- direct medical costs,
- direct non-medical costs (eg devices and paid caregivers),

- indirect costs (e.g. lost earnings),
- impacts on the quality of life,
- impacts on communal services, and
- clinical outcomes (20).

In order to have a clearer view of the factors that influence organizational development, it is important to look at the determinants of health care expenditures and their impact on individual countries (11),

IDENTIFICATION OF HEALTHCARE COSTS, CONTROL SYSTEMS AND INTERNAL AUDIT

Perhaps no industry today faces greater challenges than healthcare, and industry experts are looking for new solutions to the problems they face every day. Healthcare costs around the world will continue to be under intense scrutiny as government and corporate budgets are increasingly " under limitation". The percentage of gross domestic product (GDP) invested in the health sector in all industrialized countries continues to grow, and no model of health care organization or financing has shown complete resistance to this trend. Countries with a lower economic status face challenges in the organization of affordable and adequate quality health services, while richer countries face challenges related to the aging of the population. Both groups of countries must effectively manage health expenditures, which are growing significantly (29).

The fragmented health care delivery system in the US has perhaps received the greatest amount of attention, reflected in strong reform efforts. In addition, many other countries are experimenting with reforms related to health care organization, insurance, and reimbursement (7).

Costing involves measuring the amount of resources used to provide a particular treatment and assigning unit costs (prices) to these amounts to obtain a cost per patient. Economic evaluations often use average costs published at the national level. However, micro-costing based on accurate resource use data specific to the interventions under consideration, although time-consuming and laborious to collect, is likely to be more accurate and reliable (18). Economic evaluation of interventions should help decision makers in allocating the budget to appropriate lines, as well as in a way that will maximize value for money spent. Ljubisavljević and Jovanović (16) point out that internal audit assesses efficiency, effectiveness, economy and fairness of tasks, and that its role in efficient cost management is indisputable.

The design of health insurance can cause large, sudden and arbitrary changes to various segments, among other things, to drug prices. For example, contrary to the predictions of some behavioral economic models, high-risk patients reduce more than low-risk patients precisely those drugs that would benefit them the most (e.g. statins). Then,

it was discovered that patients are mostly unaware of the risks. Cost-sharing results in patients missing out on the opportunity to "buy health care" at a low cost (3). Today, the design of most healthcare technologies is driven by considerations from healthcare professionals and technology companies, which has its advantages (2).

Identifying the impact of private and public health spending plays a key role in the context of efforts by governments in North America and Europe to limit overall government spending, i.e. to reduce government spending. This poses challenges considering that a potential reduction in public expenditure on health care could have a positive outcome on general well-being. Although some of the potentially reduced expenditures may be achieved by better controlling price inflation or reducing waste, reductions in the volume of services are likely to be necessary, including possible hospital closures, reductions in the number of doctors or beds (per capita). These moves, however, can have a significant impact on overall health outcomes, although quantitative evidence to that effect is currently lacking (3).

Evidence linking health care costs to quality shows inconsistent results. Although most research indicates a small to moderate effect of price on quality, regardless of whether the relationship is positive or negative, inconsistencies exist. Future research should focus on identifying those types of spending that contribute to improving the quality of health care, and that represent an unnecessary waste of resources. Thus, the emphasis is on efficiency (12).

CONCLUSION

In summary, this paper reviews the literature dealing with cost management decisions in healthcare with a focus on financial sustainability. Healthcare providers in a dynamically changing environment are under pressure to control the rapid growth of healthcare costs. Healthcare organizations today face a multitude of challenges as they try to adapt to demands for better quality and reduced costs. Considering the importance that cost management has for sustainable health systems and the entire society, it is undeniable that this issue will attract a lot of attention from researchers, practitioners and policy makers in the future. It is important to look at this issue from both a macro and a micro level.

Healthcare managers are faced with a series of key decisions related to the management of activities in healthcare organizations. Rising healthcare costs put pressure on healthcare providers to optimize costs through more efficient management of resources across the healthcare system. Additionally, the trends of growth and integration in healthcare organizations have significantly changed much of the earlier research, which was conducted at a time when healthcare was predominantly defined as an isolated area. A healthcare organization must ensure that it develops management capabilities in order to realize its goals. Given the dynamic changes in the healthcare environment,

it becomes essential to evaluate previous research related to cost management design. Also, it is necessary to analyze the characteristics of the new environment that should be taken into account in future research in the field of effective cost management in healthcare organizations.

LITERATURE

34) Appleby, J., Devlin, N., & Parkin, D. (2007). NICE's cost-effectiveness threshold. BMJ, 335(7616), 358–359. doi:10.1136/bmj.39308.560069.be.
35) Ballegaard, S. A., Hansen, T. R., & Kyng, M. (2008, April). Healthcare in everyday life: designing healthcare services for daily life. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (pp. 1807-1816).
36) Chandra, A., Flack, E., & Obermeyer, Z. (2021). The health costs of cost-sharing (No. w28439). National Bureau of Economic Research.
37) Coleman, M. D. (2010). Sunk cost and commitment to medical treatment. Current Psychology, 29, 121–134.
38) Crémieux, P.-Y., Ouellette, P., Pilon, C. (1999). Health care spending as determinants of health outcomes, Health Economics, 8(7), 627–639. doi:10.1002/(sici)1099-1050(199911)8:7<627::aid-hec474>3.0.co; 2–8.
39) Dunn, R. (2022). Haimann's Healthcare Management, Health Administration Press Chicago, Illinois.
40) Evans, R. G. (2002). Financing health care: taxation and the alternatives. Funding health care: options for Europe, 1, 31–58.
41) Friedman, M., Akaaboune, O., & Margolis, D. M. (2013). Internal audit: A new lens for cost management. Journal of Corporate Accounting & Finance, 24(4), 27–39.
42) Hanskamp-Sebregts, M., Robben, P. B., Wollersheim, H., & Zegers, M. (2020). Transparency about internal audit results to reduce the supervisory burden: A qualitative study on the preconditions of sharing audit results. Health Policy, 124(2), 216–223.
43) Heath, C. (1995). Escalation and de-escalation in response to sunk cost: the role of budgeting in mental accounting. Organizational Behavior and Human Decision Processes, 62, 38–54.
44) Hitiris, T., & Posnett, J. (1992), The determinants and effects of health expenditure in developed countries. Journal of Health Economics, 11(2), 173–181. doi:10.1016/0167-6296(92)90033-w; Martín, J. J. M., Puerto López del Amo González, M., & Dolores Cano García, M. (2011), Review of the literature on the determinants of healthcare expenditure. Applied Economics, 43(1), pp. 19–46. doi:10.1080/00036841003689754.
45) Hoque, Z. (Ed.). (2005). Handbook of cost and management accounting. Spiramus Press Ltd.
46) Hussey, P. S., Wertheimer, S., & Mehrotra, A. (2013). The Association Between Health Care Quality and Cost. Annals of Internal Medicine, 158(1), p. 27. doi:10.7326/0003-4819-158-1-201301010-00006.
47) Jeremić, N., Jakovljević, N. ., & Jeremić, M. (2022). The role of internal auditing in business continuity. Revizor, 25(97–98), 53–71. https://doi.org/10.56362/Rev2298053J.

48) Khan, M. Y. & Jain, P. K. (2008). Cost accounting and financial management for CA Professional Competence Examination, Tata McGraw-Hill Publishing Company Limited, New Delhi.
49) Kulvik, M., Linnosmaa, I., & Hermans, R. (2006). Adoption of new technologies and costs of health care (No. 1037). ETLA Discussion Papers.
50) Ljubisavljević, S., & Jovanović, D. (2011). Empirical research on the internal audit position of companies in Serbia. Economic Annals, 56(191), 123–141.
51) Malinić, D., Milićević, V., Stevanović, N. (2012). Upravljačko računovodstvo, Ekonomski fakultet, Beograd.
52) Maniadakis, N., Vardas, P., Mantovani, L. G., Fattore, G., & Boriani, G. (2011). Economic evaluation in cardiology. Europace, 13(suppl_2), ii3-ii8.
53) Marcinko. D. E. & Hetico, H. R. (2014). Managerial Medical Cost Accounting, Structure, modelling, and Behavior, In: Financial Management Strategies for Hospitals and Healthcare Organizations - Tools, Techniques, Checklists and Case Studies, Eds: D. E. Marcinko, H. R. Hetico, Taylor & Francis Group, pp. 3–35.
54) Mauskopf, J. (1998). Prevalence-based economic evaluation. Value Health. 1(4), 251–9. doi: 10.1046/j.1524-4733.1998.140251.x. PMID: 16674550.
55) Milošević, M., Stojiljković, M., Raičević, J., & Milojević, S. (2023). Obrazovanje i obuka u oblasti strateškog finansijskog menadžmenta i kontrole: u kom pravcu bi trebalo da idemo?. Revizor, 26(102–103), 25–36. https://doi.org/10.56362/Rev23102025M.
56) Mitrović, A., Knežević, S. (2023). Kontrola i revizija, Fakultet za hotelijerstvo i turizam u Vrnjačkoj Banji, Univerzitet u Kragujevcu.
57) Mitrović, A., Ognjanović, J., & Milašinović, M. (2022). Interna kontrola i računarsko okruženje. *Revizor*, *25*(99), 65–80. https://doi.org/10.56362/Rev2299065M.
58) Neriz, L., Núñez, A., & Ramis, F. (2014). A cost management model for hospital food and nutrition in a public hospital. BMC health services research, 14(1), pp. 1–12.
59) Propp, D. A. (1999). Fixed vs Variable Costs of Hospital Care. JAMA: The Journal of the American Medical Association, 282(7), 630–630. doi:10.1001/jama.282.7.630.
60) Srebro, B. (2022). Integrisani model interne revizije u funkciji unapređenja strateškog upravljanja (Doktorska disertacija, Univerzitet u Beogradu-Fakultet organizacionih nauka).
61) Stadhouders, N., Kruse, F., Tanke, M., Koolman, X., & Jeurissen, P. (2019). Effective healthcare cost-containment policies: a systematic review. Health Policy, 123(1), pp. 71–79.
62) Stanišić, M. (2022). Upravljanje funkcijom interne revizije. Revizor, 25(100), 93–110. https://doi.org/10.56362/Rev22100093S.
63) Stepovic, M., Rancic, N., Vekic, B., Dragojevic-Simic, V., Vekic, S., Ratkovic, N., & Jakovljevic, M. (2020). Gross domestic product and health expenditure growth in Balkan and East European countries – three-decade horizon. Frontiers in Public Health, 8, 492.
64) Taheri, P. A., Butz, D. A. (2005). Health Care as a Fixed-Cost Industry: Implications for Delivery. Surgical Innovation. 12(4), 365-371. doi:10.1177/155335060501200413.
65) Zatz, D. A. (2000). "Organizational Development Toolpack." Teaneck, NJ: Toolpack. com. http://www.toolpack.com.
66) Žarkić Joksimović, N., Barjaktarović Rakočević, S., Obradović, T. (2016). Upravljačko računovodstvo: analiza, planiranje, odlučivanje, kontrola, Fakultet organizacionih nauka, Beograd.

Upravljanje troškovima zdravstvenih organizacija za finansijsku održivost

Rezime: Pružaoci zdravstvenih usluga u okruženju koje se dinamično menja su pod pritiskom da kontrolišu rapidan rast troškova zdravstvene zaštite, u čemu im značajno pomaže interna revizija. Zdravstvene organizacije se danas suočavaju sa bezbroj izazova dok pokušavaju da se prilagode zahtevima za boljim kvalitetom i smanjenim troškovima. Za generisanje zdravstvenih usluga potrebne su metodologije zasnovane na specifičnim karakteristikama zdravstvene zaštite. Metode segmentacije zasnovane na menadžmentu otkrivaju da hitni slučajevi, kontinuirana nega, prevencija i lečenje imaju različitu logiku stvaranja vrednosti, otpada, tražnje i finansija. Upravljanje aktivnostima u zdravstvu se fokusira na to kako organizovati resurse i tokove, tako da se zadati ciljevi, troškovi i klinički kvalitet i iskustvo pacijenata mogu postići sa dostupnim resursima. U tom kontekstu je definisana svrha ovog rada, a to je da se ukaže na specifičnosti upravljanja troškovima u zdravstvenim organizacijama.

Ključne reči: troškovi, zdravstvena organizacija, kontrola, interna revizija