

# **Controlling in Hungarian hospitals: history and key issues**

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The aim of this review paper is to illustrate the areas of interest and the thinking of Hungarian hospital managers by providing a summary of the relevant Hungarian health care controlling literature and to give an introduction of potential research directions. The paper summarizes the “public discourse” and thinking on controlling, and simultaneously highlights the priorities of health care as well. The main range of interest are the financing problems and their solutions, as well as other kind of uncertainty arising from the continuous changes in roles and measures. In the early nineties some health care institutions started to apply controlling systems as a result of the introduction of performance-based financing and often published articles about it up to 2004. In 2015, a project created to enhance the operational efficiency of the health care system restarted controlling thinking: unified management measures required for hospitals may induce the development of the controlling data service, more accurate reporting, management attention, and experience sharing.

**Keywords:** controlling, management control, health care

**JEL-codes:** M10, M40

## **1. Introduction**

The icons of classical organization theories (Fayol and Taylor) formulated statements based on personal experience and developed them to become more general (Balaton 2000). Then in the 1980s the challenges of a competitive environment motivated the development of traditional costing and management control (Kaplan 1984). To modernize the processes of management accounting and management control, Kaplan suggests the exploration of innovative practices introduced successfully by other organizations through field-based research. Atkinson et al. (1997) added that there is a need to research the interactions between non-profit organizational structures and management accounting, and the differences of for-profit and non-profit organizations.

International management control has been broadening continuously from simple definitions to complex models and package approaches, since systems have taken the distinctive aspects such as organizational behaviour, cultural values etc. increasingly into consideration. The dominance of information supporting decision-making was taken over by the spread of control, thus for example connecting remuneration and compensation systems to it. Management control has been continuously improving, in line with managerial claims, the interest of researchers and practical problems. It is more specific in the non-profit and in the

health care sector: the treatment of persistently increasing cost-consciousness (Chua 1994) invokes for-profit management control techniques (Anthony – Young 2003; Merchant 2007).

This cost containment is present in Hungary too: since the mid-90s the Hungarian health care system has been moving in a ‘vicious circle’ because the permanently decreasing resources in the health sector are insufficient to resolve the structural problems (Bodrogi 2010). Currently, health spending is 7.4% of GDP, compared to an average of 8.9% in the OECD countries (OECD 2015), but the average drop in GDP – generated by the economic crisis – was almost twice as massive in Central and Eastern European countries as the drop in the euro-zone (Baji et al. 2015), which caused a further reduction in low health care resources. Because of cost-containment, the demand for information- and evidence-based decisions may increase (Gulácsi et al. 2012), posing challenges for hospital managers, and incentives to use controlling systems. With a lack of similar controlling research in health care, the only textbook to be found is Bodnár et al. (2011), which fills this gap and guides the reader through the elements of the management control model proposed by Anthony and Govindarajan (2007) from the aspect of health care.

This paper examines these elements and organizes the thinking of hospitals along various controlling approaches. The publication summarises the area of interest of experts and managers with a positive approach, using the nearly 30 year history of health care controlling in Hungary.

## **2. Research methodology**

Understanding the controlling context and the management’s expectations of Hungarian health care institutions were the motivations to prepare this publication, which was supported by theoretical educators and practitioners. The aim of this paper is to identify major works on controlling research concerning health care organizations, and thereafter to classify them so as to identify gaps, issues, and opportunities for further research. To gather these works, MATARKA, a Hungarian abstracting database, was used with some important keywords such as ‘controlling’, ‘management control’, ‘hospital’, and ‘health care’. This was followed by a review of Hungarian journals (IT and Management in Health Care (IME); Hospital and Health-Economic Review) and papers presented at an annual conference organized by IME.

The focuses emerging in literature are the following: the necessity of controlling, the definition of control and management information, cost and coverage accounting, other tasks delegated to controlling, and the role of motivation systems. In these categories, different controlling approaches are outlined: the financial approach, the cost and coverage approach, the benchmarking-centred approach, the approach based on motivation and the information-centred controlling approach, all of which are explained below.

To establish a time span, the starting point was 1997, the year of the publication of the first controlling thesis (Bodnár 1997), five years after the financing reform in hospitals and the first introduction of hospital controlling systems.

### **3. Controlling in national health care institutions**

#### **3.1. Definition of health care controlling**

In the Hungarian theoretical and practical education of controlling and in the related literature, several authors (Horváth 1997; Boda – Szlávik 2001; Hanyecz 1997) start their books with rudiments of accountancy within the general methodological bases of controlling, named as ‘knowledge of the language used by controllers’. But it is added that ‘the controller is not an accountant. For them, another dimension of accounting is important. The substantive difference is not in the depth of accounting knowledge, but in the distinct structure of it’ (Boda-Szlávik 2001). Hanyecz (1997) named accounting as the fundamental tool of controlling, which provides data for the management of the company. Management accounting can be built on accounting knowledge: management accounting is a ‘modification of accounting that considers the interests of business management as a priority emphasized beyond the interests of the review of business processes’. The internal and external information function of the organization can thus lead to the definition and functions of management control. For example, Laáb (2001) defines both the support of managerial decision-making and impact analysis regarding decisions as the main tasks of management accounting and controlling in the period of planning and implementation. Hanyecz (1997) collected the building stones of controlling: (1) management oriented accounting, (2) targeting, planning, control, (3) a reporting system, (4) analysis and evaluation, (5) contra-indications and counteractions for the correction of management. According to Dobák and Antal (2010), control is a ‘process based on feedback, helping to achieve the organizational goals. In advance, the managers establish, measure, and compare standards of certain characteristics of the controlled entity and intervene in case of deviation of actual characteristics’.

In the most cited and accepted definition in the Hungarian context, Horváth (1997) stresses that ‘controlling is a complex management tool with the task of coordinating the planning, control, and information flow’. The three main elements of the regulational circle of controlling are the (1) establishment of performance measurement (planning), (2) plan and actual data comparison, and (3) the correction of deviations, counteractions. Balogh (2005) writes essentially the same but in a more detailed manner: formation of goals, collection of information, creation of strategic and operational plans, analysis of deviations, exploration of reasons for deviations, intervention and information support.

From another point of view, Boda et al. (2011) harmonize the establishment of controlling systems with evolutionary phases of organizational development (creativity, management, delegation, coordination, collaboration), namely, the formation of controlling system begins in the management phase and starts to develop in the period of delegation. For this review, Bodnár’s (1997) comprehensive definition was adopted: ‘controlling systems are management supporting formal devices which serve planning, measuring, evaluating, and feedback for managers, on institutional and department levels’.

In principal, controlling is an essential device of health care management. According to Papp (2003), it is used despite its negation (the manager of the organization applies it consciously, organizing it into a system instead of inducing difficulties with ad-hoc questions for their

environment), the health care organization is not manageable without planning; feed-backing; capacity, performance and cost monitoring, and analyses. Kis (2005) adds that controlling helps to make the management well-informed with economic, financial, and professional data, and in addition with plan and actual data comparisons, assessment, monitoring and liquidity management. The activity of organizational controlling is the (1) step-by-step elaboration, detailed quarterly, overviewing monthly of up-to-dated management information systems, of controlling conception and management approach, (2) the preparation of the initiation of a unified information system, and last but not least (3) the improvement of the controlling organization itself. Szabó (2001; 2003) summarizes the tasks of controlling on the basis of the operation of controlling in his hospital: the hospital management plan is made annually (income, permanent obligations, operational costs and developmental resources), the plan is divided into entities with incomes and the desirable breakeven indicators are arranged, then, monthly reports are made about plan and actual data comparisons constituting the base for management decision-making and/or motivation systems. Kis (2005) emphasizes that ‘fairly underfinanced health care organizations should get feedback about their efforts and the realization of their plans on one side, and forecast about increasing threat and anomaly, on the other’. Baráth (2002) calls it a ‘traffic light’: controlling helps the activity of the organization to be more efficient, and indicates problems. These forecasts only partially work, because one of the great weaknesses of Hungarian health care controlling is planning.

Formally, the functional elements of a controlling system constitute an integral issue on strategic and operational levels (Körmendi 1998). The author argues for the role of planning, in other words, if there is no planning process, but solely data analysis, the activity cannot be interpreted as controlling. According to Flamholtz (1983), there is even a ‘control system’ that consists merely of a planning system with little else. Even though Csidei (2005) has qualified planning as a success factor for a decade, few Hungarian publications concentrate on the methodology of strategic planning (Kiscsordás – Gyüre 2003; Bodnár – Papik 2013; Baráth 2002; 2010) and practical experience of operational planning (Szedleczi 2003a; 2003b).

More definitions and phrasings related to the controlling task deriving from practical usage, published in the health care management journals (Papp 2003; Kis 2005) are close to the controlling definitions taken over from business life. In addition, Molnár and Nagy 1996, Kis 2005, Bodnár 2004, and Bodnár and Papik 2013 all mention that controlling turns into a philosophy: ‘managers have to respond to the essential differences between plans and actual data, and they have opportunity for taking measures in accordance with targets agreed’ (Molnár – Nagy 1996). Kecskés (2003) stresses the following functions: ‘preservation of medical professional and economic autonomy, prolongation of the time horizon of strategic planning, formation of service structure in a conscious manner, continuous development of the organization, quality assurance, privatization strategy and practice, and controlling as a usage of managerial tools’. Expanding these methods in their series of articles, Bodnár and Papik (2013) write about those analysis and management devices as well as models which could be factors of success with assurance of designated destination, execution and control.

In 2015, the earlier and mainly subjective, experimental definition was replaced by a single controlling determination, developed by experts (Bsoft 2015a), and a controlling handbook was written (Bsoft 2015b). The interpretation of controlling is ‘an organizational management

device or system with a function of target setting, planning and information supply for performance measurement, control and decision-making, the coordination of these activities and the transparency of economic and efficiency' (based on Horváth, 1997 and ICV-IGC 2012). This definition not only clarifies the earlier interpretations, but also provides a possibility to research into controlling activities in terms of a common definition.

### **3.2. Historical development of hospital controlling systems**

According to Baráth (2010), 'as a result of remarkably rapid technical development, the issue of price of medication or more generally, the issue of financing has become the core point of medication. By now an ever widening gap has been formed between the medically possible and the economically affordable'. This causes an increasing demand for resources of health care, and accordingly the requirement of continuous verification of financing of processes. Early works in the topic of controlling connect the evolution of institutional controlling to the specialities of the financing system. In other words, with the introduction of performance based financing a 'demand of economic fairness' (Molnár – Nagy 1996) and economic stability (Papp 2004) are required and this seems to be implemented in the motivation system based on controlling. After its introduction, this demand – until the initiation of the performance volume limit (PVL) – subsisted, since the frequent changes of financing rules and sometimes contradictory policy and owner expectations generated further challenges for health care organization (Papp 2004). In 2004, the implementation of performance volume limit<sup>1</sup> aimed at the prevention of overspending of the Health Insurance Fund, incited some publications, but then a long, quiet period came (2007-2014). Later, some young researchers (Mattiassich 2014; Mattiassich – Bubori 2015, Zemplényi et al. 2014) have begun to publish their studies, but the change came with a government project entitled the 'development of organizational efficiency in the health care system - the development of regional co-operation' (SROP 6.2.5-B-13/1-2014-0001). The project was launched by the National Health Care Services Centre (ÁEEK, a maintenance organization of state-owned hospitals) to increase the operational efficiency of the health care system, with one sub-target to develop the regularity, consistency, and quality of available management information and decision support systems for institutional managers and maintainers. In this framework, a uniform chart of accounts, the department and case level controlling methodology and manual has been developed. During its implementations, 51 institutions successfully started departmental controlling systems, and 12 institutions collected cost data of 2440 cases with the case level controlling methodology (Nikliné 2016). National dissemination took place after the implementation period, but its impact is not yet known.

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<sup>1</sup> The PVL is a defined eligible output volume for outpatient care and active inpatient care for service per year, on a monthly basis. The financing is provided solely within the volume limit by the National Health Insurance Fund. See <http://fogalomtar.eski.hu/index.php/TVK> for more details.

### 3.3. Different controlling approaches

Managers expect controlling systems to support the operation of hospitals by increasing economic stability (Papp 2003; 2004). It is interpreted by different approaches, depending on the context of managerial use: financial approach, cost and coverage controlling, motivation system based controlling, benchmarking or information centred controlling. These diverse roles of controlling are based on each other and support each other in a strong controlling system (Figure 1).

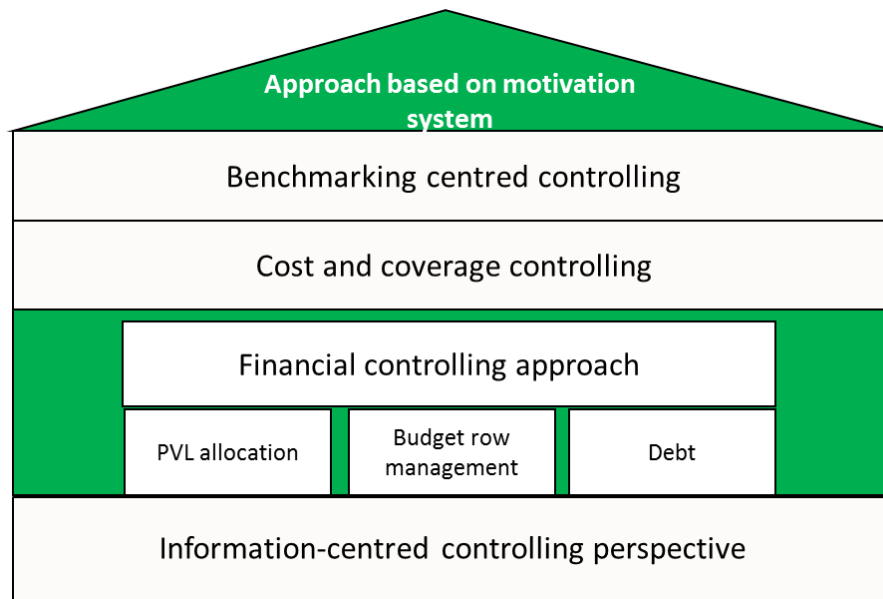


Figure 1. The various approaches of health controlling and their interconnections

Source: author

#### 3.3.1. The Financial approach in controlling

It is suggested that the activities of most controlling managers reflect a financial perspective, which focuses on the evolution of debt and on the maximization of revenue from health insurance funding. At conferences and in professional publications, managers, experts, and health care decision-makers have stressed for a long time and Székely and Bodnár (2004) also write that 'the current financing system operates with a closed budget and it has a poor connection with the emergence of actual cost'.

Referring to the problems of the health care system, Óváry (2014) considers the liquidating of unprofitable operations as the key issue by using financial devices: PVL budgeting based on responsibility accounting. In the context of outpatient care, he argues that it is necessary to manage the unutilised outpatient capacity with increasing performance, by which the system contributes to the maintenance of under-financed central laboratories as well.

This financial perspective is very strong in the minds of hospital managers, although a series of publications demonstrate the necessity of costs and coverage information and the possibility of costs and coverage centred controlling system applications.

### 3.3.2. Cost and coverage controlling approach

Since the introduction of the Hungarian Diagnosis Related Groups (HDRG) financing system, not only a number of hospitals, but health insurance is also dealing with the relationship between fees and actual service cost, but a remarkable segment of health care organizations do not know the relationships between costs (Székely – Bodnár 2004). One of the central questions of the profession is whether the real cost of health care services is covered by the average costs used in the financing system. According to Zétényi and Csiba (2009), in order to improve the allocative efficiency of financing, itemized data collection should be performed on organizational, as well as patient levels. For the clarification of the financing unit, (1) experiences of the earlier data collecting methodology of the National Health Insurance Fund (improved data collection and various data unification) and (2) case-level controlling method may be used. The importance of costing is mentioned by several authors, but only Székely and Bodnár (2004) elaborate it in detail. They use a theoretical approach and do not provide practical experiences, although the consideration of methodological steps might realize an advance in the hospital controlling system.

In the Hungarian context, the focus of cost accounting is mainly on the institutional and rarely on the departmental activity; nevertheless, proactive researchers and professionals have already started to adapt international costing methodologies (case-level costing, activity-based costing, process-cost calculation). With the information of case-level cost, (1) the cost and contribution of each health care service can be demonstrated; (2) the cause of deviation of costs can be analysed, which may identify points for intervention which have been hidden so far because of the aggregated form of data; (3) efficiency reserves can be exploited by realizing a deeper knowledge of resource utilization and by restructuring provision processes (Zemplényi et al. 2014). Thus, the decision-making processes of hospital management can be improved, moreover opportunities are provided not only to assess the types of interventions but even for doctors to make comparisons (Budánovics 2007). Last, but not least, the standardized cost calculation also allows comparison of data from the institutions and to explore the reasons for the differences.

The aim of the cost and coverage analysis is to reveal the mistakes in operation, to give substantive suggestions and therefore to contribute to achieving efficient operation. In order to achieve these goals, accounting and an operational model, fixing basic data of cost elements (materials and medicines), controlling systems and IT support are necessary (Budánovics 2007). According to the practice of Csidei et al. (2005),

managers get feed-back about the work completed in each department and its financial benefit monthly, and at managerial meetings they assess the probable causes of differences compared to the plan not only on the institutional level but also in the aspect of each department. Suggestions for solutions are formed on departmental level’.

In Csidei et al.’s interpretation the management has a ‘serving function’: it collects the emerging demands, examines the reality of modification, and influences the environment.

The methodology of department cost and coverage calculation is centrally defined in controlling manuals (Bsoft 2015a; 2015b), which gives the opportunity to the maintainer to

collect, compare, and analyse data from different institutions, and to clarify the financing method.

### **3.3.3. Benchmarking centred controlling**

Besides classical controlling functions, Szabó (2003) emphasizes the benchmark as a managerial tool. In his hospital, at least annually, the indicators of capacity, operation, cost, input, and financing are compared with common databases of hospitals using a similar information system. The data of benchmarking give a factual answer to questions debated for a long while: without inter-hospital comparisons, it is difficult to decide whether a lack of human resources is responsible for the low performance of acute care or not. 'Data on performance and staff numbers of similar departments in five other hospitals decide the question'.

This type of comparison and analysis function is only mentioned by a few authors, managers hardly use these external and/or internal data for comparison. Benchmarks may be produced by three sources of information: (1) national data released by the National Health Insurance Fund (NEAK); (2) databases prepared by external consultants, and (3) the hospital's internal data, in case of large institutions. The NEAK data has a broad scope: monthly, mostly aggregate data about the number of beds, patients, or interventions. The monthly financial analysis describes performance in detail for regions, medical professions or institutions. Reports made by the consultants, are prepared on the basis of more accurate and more detailed benchmark data, but they also result in additional expenditure for the institutions.

### **3.3.4. Controlling based on motivation systems**

The forming and applying of a motivation system enhances managers' and employees' willingness to achieve targets. Papp (2003) stresses that by introducing a motivation system, 'the management does not only establish an incentive system, but improves the wage-levels and biased wage ratios as well'. In addition, the most important motivational factor is the formation of an active work atmosphere with elements like guidance, tolerance, support of professional advancement, feed-back, assessment, justice, and ambition (Krokovay – Kohán 2004). According to Szabó (2003), one crucial element of this system is the modelling of the established construction of interests, since in the 'rapidly changing operational conditions of health care organizations even a properly constructed motivation system may cause liquidity problems'.

In the interpretation of Molnár and Nagy (1996), the controlling is relevant in the context of motivation systems. The aim of controlling is 'to keep track of direct costs, to increase contributions, to hold the level of contributions, a financial result, to achieve the minimum performance in each area, to meet quality requirements, to continue the change of structure, to achieve the optimal number of staff; and not to ensure greater revenues from NEAK. So as to fulfil these goals, the following operational process is necessary: 'bottom-up planning; top-down manager concepts; freezing staff number; plan bargain and plan agreement; quarterly



accountability, defining an interest in quarterly performance in each organizational department’.

Compared to the construction and adaptation of motivation systems applied in the for-profit sector, it is a huge difference that the incentive of performance is possible only to a defined measure, namely PVL, as due to the decreasing financing above this limit, even effective management become negative. Óváry (2014) emphasizes the fact that the controlled and limited performance guarantees a hospital’s sustainability. Consequently, the most remarkable element of the balanced financing has been the operation of the mature endo-financing system in recent years (Kecskés 2003), in which the establishing of departments of responsibility and accounting plays the most important role. Departments of responsibility are determined by workplaces being separable in the professional sense on the one hand, and having a manageable size regarding calculation of income and costs, on the other (Szabó 2003). Then, indicators are to be defined based on the contribution of the previous departments. Therapeutic clinics and diagnostic institutions have been interpreted as profit centers, so the concerned departments have been interested in both increasing income and the reduction of operational costs. At Medical University of Debrecen, endo-financing was based on the financing from NEAK, but the income from NEAK was reduced by the proportional part of central costs. However, the underfinanced clinics and professions (for instance paediatrics, haemodialysis, kidney transplant, as well as heart surgery and orthopaedics demanding implants) have accumulated a remarkable internal deficit. In order to decrease this deficit to a manageable amount, moderate cutbacks compared to the average were applied in the internal financing systems.

Óváry (2014) attributes the failure of the operating of the motivation system according to contributonal principle to the out-of-date reporting system. He demonstrates it by the example of the National Institute of Clinical Neurosciences: no sanctions were applied in cases of exceeding the budget, or these were only verbal. This practice suggested to managers that budgets may not need to be kept. ‘It has become obvious that the right solution is the orientation of fundamental goals instead of avoidance even if it is possible only by introducing sanctions, debates, and sometimes inconvenient and personal confrontations’ (Óváry 2014). Consequently, stricter rules were introduced, and the mandates of managers positioning themselves against the rules were withdrawn.

Similarly to Molnár and Nagy’s (1996) opinion, these examples present that the most significant results of controlling as a motivation system include a change of approach, the intensification of responsibility, the application of departmental controlling, feedback on performance, and cost related data. All of these are necessary for rapid interventions and an increase of performance with minimal incremental costs.

### **3.3.5. Information-centred controlling**

Management control is primarily applied as an information providing tool to fulfil the goals of organizational decision making (Strauss – Zecher 2013). Health care managers also focus on providing information and often examine the area in an information technology approach

(from three important points of view: financial, user, and process) (Szedleczi 2003a; 2003b). Information support is a tool for elaborating and analysing data, but at the same time it has an important role in economic processes as Sárossy (2002) stresses. Among these, the most important is to find the sources of outcomes and deficit, to explore the possibilities for resource optimization and the relationship between demand and performance as well as to assess accessible performance. In managerial decision support 'quick access to information is an essential issue' (Szabó 2003), but slow, paper based processes, manuality, and parallelity in registers, outdated/contradictory/incomplete data (Kiss – Stubnya 2006) make it more difficult in health care institutions. Moreover, information satisfies diverse demands, since the executive manager of a hospital is interested in the department-level in summarized organizational data, or demographic, analytic, and epidemiological data (Polyvás 2007a, 2007b), while a doctor in inpatient care needs data regarding the department and patients (Sárossy 2002).

Túhegyi (2003) reported that information systems in health care institutions operated as subsystems not or hardly communicating with each other, accordingly, financial, economic, and medical systems could not communicate with each other without difficulties. After continuous development of the systems, the IT support of the accounting and controlling area of health care institutions was surveyed (Bsoft 2015). Accounting is typically in CT-Ecostat published by CompuTREND (an independent management software, organically adaptable to any system) or in MedSAPSol from T-Systems (which is configurable based on individual needs, with specific improvements). The two major controlling systems are eKON from the BSoft KVIK family and CT-Medkontroll from CompuTREND. Both modules are suitable for data collection, data following, planning, and plan-actual comparisons.

Controlling is suitable to fulfil complex data requests for senior executives, as it collects economic (expenditure-cost-income), (medical) professional, and performance data. A challenging issue of the turbulent health care environment (Dózsa 2010), constantly present for almost ten years, is the outsourcing of activities of the organization, the most critical point of which is decision planning (Tanács 2002). Instead of classical controlling functions (planning, control, and information services), the controlling role is often the completion of ad-hoc analytical tasks (such as outsourcing) and the satisfaction of maintainer data requests.

#### **4. Conclusions**

The topics of Hungarian health care controlling partly cover the areas of business controlling (costing, systems of responsibility etc.), although in a much more incomplete and superficial way. As Túhegyi (2004) mentions, 'the necessity of controlling always emerges there and then, when and where the external sources of the organization are reduced, and the interest of management point towards utilizing the internal, available sources of the organization in a more rational way'. Thus, the controlling tasks and publications are driven by practice, consequently these publications do not build on each other, the authors do not draw from each other's results, and only sporadic works are published. On one hand, the research on health care controlling is limited and typically practice-based, on the other hand, research links (networks) are not developing. While doctors follow the international research results at least

theoretically, this interest is missing in case of health care managers, maybe because of environmental uncertainty, the lack of competence in management, or even the change of stakeholders. A narrow strata of managers of health care institutions publish papers about their experience and take part in conferences. Publications often concentrate on the popularization of different softwares and information technology solution. However, there are more and more participants at conferences, and interest as well as the motivation for getting information seem to be more intense.

In Hungary, controlling has become a core issue with the introduction of performance financing (HDRG) and since then financing has been in the focus, sometimes with coverage calculation or benchmark elements. Contrarily, a range of international publications are about the prompt cost increases in health care and as a result, these writings concentrate on the need for more accurate knowledge (methodology and application of costing) and the possibility to decrease costs, as well as on the results and experience of reforms driven by the demand for cost control. However, the Hungarian literature hardly deals with performance measurement, although planning is one of the most important elements of management control systems. Planning and plan and actual data comparisons are not in focus, the cause of which is not obvious according to the available literature, nor is it clear how hospital management uses information in decision mechanisms. Due to the turbulent environment of the past decades (Dózsa 2010), the managers of health care organizations and hospitals react to changes more slowly and carefully, however, the integration, maintenance and the utilization of the available organizational information would serve as one of the most important tools of management. Instead, the intensifying uncertainty generates an adverse reaction and the solution ‘is looked for again and again in the context of increasing performance’ (Zétényi 2006). The connection between information and decision making is unclear from publications, although the controller has to ‘assess the realization of goals established by the management, and has to reveal such narrow cross-sections which may impede the realization of purposes’ (Dencsi – Varró 2008). The pre-requisite of this is that the hospital management and the health care sector as a whole should have a well-defined strategy and medium and short term plans which provide the opportunity for controllers to perform their classic tasks.

The controlling thinking of health care institutions has changed significantly over the past two decades. Following the introduction of the performance-financing system, controlling has at times emerged as a ‘popular’ area: up to the introduction of PVL, it was the subject of professional discourse. In the “PVL-free period”, the thinking based on motivation in a manager-based approach, coverage calculation, benchmarking, and appropriate information support was important not just in the life of the pioneer institutions. The introduction of PVL and government austerity measures restrained this control-based management, and caused a paradoxical situation: the devaluation of controlling. Despite the continuous decrease in the resources in the health sector, controlling may be a support tool in effective (or loss-minimizing) management. The strengthening of financial approaches includes faulty assumptions: managers mistakenly believe that the limitation of cost (or even expenditure) could improve the output of the department or institution, especially in an uncertain and turbulent environment. In contrast, coverage calculations and institutional comparisons reveal

potential reserves, unveil profitable activities. The the building of an organizational motivation system can support achieving organizational goals.

In order to continue centralization and acquire a deeper knowledge of health institutions' operations, there seems to be some standardization in controlling: the government prescribes the application of a controlling methodology manual, common chart of accounts, and requires data services. The managers of hospitals and the government may think about sector-wide decision support systems. The mentioned SROP project has shaken the managerial and medical audience and maybe the management sciences can come into focus again.

As the saying goes in the health care context, 'effective therapy is possible only after proper diagnoses': symptoms are explored which may mark further research directions for health care institutions. In view of the literature, the causes of these phenomena require further research, for which the elaboration of qualitative methodology is necessary. The causes of the paradox of devaluing controlling despite cost pressures might be analysed using interviews, and the widening of knowledge about these issues may improve controlling in health care.

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