

Management Control in Hospitals

A Breakthrough Approach to
Improving Performance and Efficiency



Roman A. Lewandowski

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For years, problems related to health-care efficiency have been at the top of the priorities of many hospital systems and governments. The growing cost of health care, and particularly hospitals, is a significant factor in the increasing pressure for improvement of hospitals' efficiency while maintaining a high quality of services. Hospitals are recognized as organizations in which waste, unnecessary administrative burdens, failures of care coordination, failures in execution of care processes, and even fraud and abuse are frequently identified issues.

Adoption of management control as a response to hospital problems is consistent with the conviction that control is a critical management function that has the greatest impact on organizational performance. Research proves that the lack of adequate control, adapted to modern organizational solutions, causes many harmful consequences, such as faulty services, dissatisfied patients and employees, inability to effectively compete on market, low flexibility and innovativeness, and, consequently, poor performance of the organization.

This book comprehensively presents issues related to management control and develops a breakthrough theory about management control in hospitals. It is the result of many years of research and outlines the concept of control and related theories, which are discussed in detail, taking into account the unique characteristics of medical services, the health-care market, and hospitals as higher public utility organizations.

Research has shown that the main elements of management control in hospitals are information systems, diagnostic control, interactive control, innovativeness, manager's trust in physicians, and perceived uncertainty. And that proper relationships between these elements positively influence the hospital's performance. This book describes how the success of the entire control process is based on the hospital's top management and its interaction with clinical managers, department heads, and directors of other medical departments as well as clinicians. After reading this book, the implementation of the solutions suggested will help hospitals improve their performance, including the quality and effectiveness of the provided medical services and patient care.



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I dedicate this monograph to my wife Danusia as a thank you for her love, patience, and persistent presence with me, and for her constant support. She is the inspiration of my life and my work. It is thanks to my wife that I have been able to work long hours without losing my home hearth all these years, which I have dedicated to my work at the hospital and at the university as well as to research and publications.



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About the Author



Roman A. Lewandowski is an assistant professor at the University of Warmia and Mazury in Olsztyn, Faculty of Economics, Institute of Management and Quality Science and director of Voivodesship Rehabilitation Hospital for Children in Ameryka, Olsztynek, Poland. With his primary research interests in management control in health care, performance management systems, person-centered care implementation, trust, hybridity, and quality.

Roman combines his extensive real-world management experience with academic expertise to explain fundamental management and control theories, concepts, methods, and tools, and how to apply them in health-care organizations.

Roman has published over 60 studies, including two books on management control, and he is a recognized expert in his field. He has contributed to several international projects, including the COST Action IS0903: Enhancing the Role of Medicine in the Management of European Health Systems – Implications for Control, Innovation, and User Voice; the COST Action TD1405: European Network for the Joint Evaluation of Connected Health Technologies (ENJECT); and the Polish National Science Centre project: The model, the typology, and methods of measurement of control systems in public hospitals where he served as the Principal Investigator. He was involved in the Artificial Intelligence, Enhanced Person Centred Care in Neurosurgery project, which was financed by the Ministry of Health of Montenegro. Roman has also served as Vice Chair for the European Network for Cost Containment and Improved Quality of Health Care (COST Action

CA15222) and is a member of the governing council of the Polish Federation of Hospitals, which is part of the European Hospital & Healthcare Federation (HOPE).

Overall, Roman is a researcher and expert in his field, with a passion for improving health-care systems and patient outcomes through his research, teaching, and involvement in international projects and organizations.

Introduction

More than two decades ago, a famous management researcher, H. Mintzberg, stated: “I have long suspected that running even the most complicated corporation must almost be child's play compared to managing almost any hospital” (1997, p. 14). On the whole, hospital management is extremely complex. Extant studies have shown that transferring the results of research in commercial enterprises to hospitals, which function in a multifaceted institutional environment, without taking into account hospitals' specificities, is ineffective (de Harlez & Malagueño, 2016, p. 2; Cardinaels & Soderstrom, 2013, p. 649). Although for years the efficiency issues in hospitals have been at the top of many countries' priorities, results of previous reforms have been poor. Yet, this research indicates that the proper use of management control appears to be the key solution for improving the efficiency of hospitals' delivery of medical services (Yu et al., 2018, p. 2). However, control cannot be designed in the traditional way – comparing facts with benchmarks and drawing conclusions from these comparisons – but should be understood in the modern way as all instruments, activities, and systems used by top management to increase the likelihood of favorable adaptation of the hospital to the environment, which is measured by the hospital's performance. Attention should be paid to seeing control as a function that supports not only the implementation of approved plans and strategies, but also their modification.

The choice of management control as the answer to hospitals' inefficiencies is in line with the belief that control is a critical management function and has the greatest impact on organizational performance (Merchant & Van der Stede, 2017, s. 1; Eisenhardt, 1985, s. 134; Kanthi Herath, 2007, s. 896). The lack of adequate control, adapted to modern hospitals' organizational arrangements, causes many harmful consequences, such as defective services, dissatisfied patients and employees, inability to compete effectively

in the market, low flexibility and innovativeness, and, consequently, poor organizational performance (Kanthi Herath, 2007, s. 898). The above observations are consistent with the author's experience as a long-time director of a hospital and a researcher of hospital operations.

In the scientific literature, there are many general approaches, concepts, and models describing management control in a comprehensive manner in commercial companies (e.g., (Flamholtz i in., 1985; Simons, 1995; Flamholtz, 1996; Otley, 1999; Kanthi Herath, 2007; Ferreira & Otley, 2009; Malmi & Brown, 2008; Merchant & Van der Stede, 2017), while with regard to hospitals, such exhaustive concepts are lacking. This constitutes a significant research gap. Reasons for the difficulty of studying management control in health care include the fact that hospitals operate in a dynamic and intricate regulatory environment and are characterized by the high complexity of core operational processes overseen by medical professionals endowed with broad autonomy. Additionally, important elements that differentiate the functioning of hospitals from business companies is a more complex institutional environment, consisting of a number of external stakeholders, such as public and private payers or insurers, national and local governments, and health workers and patient associations, creating a highly politicized operating environment (Abernethy i in., 2006, s. 805; de Campos i in., 2017, s. 291). All parties pursue separate goals and possess great power to influence hospital decisions that affect every aspect of cost, revenue, and quality functions (Eldenburg i in., 2017, s. 53). Therefore, two research perspectives were adopted: institutional and organizational.

According to institutional theory, organizations such as hospitals must obtain legitimacy for their actions in order to secure their development and survival (Andreasson i in., 2018, s. 26; DiMaggio & Powell, 1983, s. 148–149). They can achieve such legitimacy by copying solutions in the area of management and control, which, while widely regarded as rational and effective, may, in fact, be nothing more than a socially accepted myth. The same is true for solutions that have worked in other organizations but are not suited to hospitals (Åberg & Essen, 2010, s. 16; Meyer & Rowan, 1977, s. 346). In such an environment, hospitals cannot control their activities, as “incompatible” control methods can generate inconsistencies and be perceived by internal actors as irrational, making control nothing more than a ritual. Thus, studying institutional factors is important to understand how they interfere with management control, since changes in management control can result from both institutional factors and motives for achieving efficiency. After all, hospitals may adopt a particular package of management control not only to

improve their performance, but also to appear well managed and gain legitimacy in their environment.

From the perspective of organizational theory, control problems arise primarily from the interaction of two human characteristics: bounded rationality and opportunism (Wilkes i in., 2005, s. 1056). Bounded rationality refers to people's inability to take in and process all available information, which prevents them from making the most effective actions and optimal decisions (Eicher, 2017, s. 342; Simon, 1957). Opportunism is defined as "self-interest seeking with guile" (Williamson, 1975, p. 255). It is worth noting that both traditional institutional theory (e.g., DiMaggio & Powell, 1983; Meyer & Rowan, 1977) and the organizational approach (e.g., Flamholtz, 1996; Merchant & Van der Stede, 2017; Ouchi, 1979; Wilkes i in., 2005) see the organization as homogeneous and irrational, which, however, is at odds with contemporary views of how hospitals function. Only the emergence of theory introducing institutional logics (Friedland & Alford, 1991, s. 232; Thornton i in., 2012) changed the attitude to organizations, challenging the view of homogeneity and limited rationality. The perspective of institutional logics explains not only homogeneity, but also heterogeneity. The fundamental difference between the organizational and institutional perspectives based on the theory of institutional logics is that the former sees the hospital as a homogeneous cybernetic system, while the latter sees it as a historical accumulation of past practices and understandings, forming a heterogeneous environment of coexisting institutional logics that determine the behavior of organizational actors.

Previous studies of management control in hospitals have tended to be conducted separately in the organizational and institutional streams, thus providing a fragmented and incomplete picture, while hospitals, as hybrid organizations in their day-to-day functioning, feel the pressure of different institutional logics, face limited rationality and opportunistic behavior of their employees, and yet have to implement effective and possibly consistent strategies. Thus, underpinning the study of management control in hospitals from both the organizational and the institutional perspective, as well as taking into account the coexistence of multiple institutional logics, enables a deeper understanding of the essence of the functioning of management control in hospitals and its connection with other elements of the management system.

The above considerations underlie the goal of the book, which is to identify the main elements of management control and the links between them, as well as to develop a coherent model of management control in hospitals.

This research, analyzing management control and its impact on hospital performance, focuses on the perspective of the top management, and, in doing so, takes into account the key role of information systems, innovativeness, environmental uncertainty, and trust. The research focuses on the interaction between top management and middle managers, i.e., between clinical managers of medical departments and the medical professionals subordinate to them or, rather, working with them. This is because the majority of physicians working in modern hospitals are autonomous professionals taking full responsibility for their work. For this reason, references to medical professionals mostly refer to physicians as the only group of medics with the right to make important diagnostic and therapeutic decisions, which has a key impact on the quality of services provided and on the costs and revenues of a hospital. The high degree of physicians' autonomy means that the controlling role of the ward manager (head of department) is often limited to being a representative of the medical team of a particular specialty rather than a supervisor in the traditional sense.

This study made it possible to create a coherent, transparent, and thoroughly researched theoretical construct of management control in hospitals, contributing to the development of the theory and the practice of managing hospitals. In the first instance, it has provided broad insight into how management control functions, paving the way for recognizing the interdependence between the way the information system is used and the performance of a hospital, and it has provided an opportunity to identify specific practices for improving hospital efficiency. This represents new knowledge that will enable both theoreticians and practitioners to better understand the functioning of management control and the role of managers in this control and to improve actions that respond to emerging challenges.

The research is elaborated in seven chapters. Chapter 1 discusses the unique characteristics of the health-care market, medical services, and hospitals. It also highlights the role of the medical profession (especially physicians) as a major organizational resource and the complex relationship between medical professionals and managers and discusses the implications of the existence of two bureaucratic orders in hospitals: Weberian and professional. Attention is also paid to the institutional perspective in the social sciences and, in particular, to the concept of institutional logics, which further illuminates the relationship between physicians and hospital managers. The chapter goes on to summarize the effects of past efforts by various countries to improve the efficiency of the health-care system, especially hospitals.

Chapter 2 introduces the concept of control and related major theories, considering, among other things, the division between performance and behavioral control, agency theory and coupled information needs in the perspective of hospital management. Attention is given to the links between the development of control and the evolution of approaches to understanding organizational strategy, and, in this context, the concept of levers of control is discussed. Chapter 3 examines the extant body of knowledge concerning elements of management control identified as fundamental during the research, such as information system, diagnostic control, interactive control, innovativeness, manager's trust in physicians, environmental uncertainty, and employee rewarding. It also synthesizes the previous research about the interrelationships between these elements. Chapter 4 addresses the research methods used in the study, namely, the sequential exploratory mixed-methods design. In this study design, the quantitative phase of data collection and analysis follows the qualitative phase of data collection and analysis. In this chapter, the research samples for both phases are described.

Chapter 5 is devoted to the qualitative research report. It contains a discussion of elements of management control, i.e., second-order themes (constructs) identified in the procedure of thematic analysis of materials collected during field research in hospitals. The identified elements of control are illustrated with numerous examples of their functioning in the hospitals. The quoted statements of directors are intended to enable readers to form their own view of the functioning of management control and thus reduce the impact of the potential subjectivity of the author, a long-time hospital director. As a result of the theoretical considerations and the results of the qualitative research, 14 interrelated hypotheses are put forward, which, together with the identified constructs, make it possible to formulate a conceptual model of management control in hospitals.

Chapter 6 discusses the results of statistical tests related to the estimation of the path model proposed in Chapter 5. In this part of the work, the meaning of the variables in the process of their operationalization is clarified. At this stage of the research, the theoretical constructs that emerged from the qualitative research are linked to the specific indicators identified during operationalization, which became the basis for the development of the questions and statements included in the research questionnaire. In the next section of Chapter 6, given the existing research limitations, the choice of the PLS-SEM estimator is justified, and a report on the validation of the measurement model of variables and the estimation of the structural model of management control in hospitals is presented. Given the characteristics

of the PLS-SEM estimator, great importance is given to assessing the predictive power of the model, and the problems associated with evaluating the model's fit to the data are characterized. Extended structural model analyses of non-linear relationships between variables are also described, and observable and unobservable heterogeneity in the data are estimated.

The work closes with Chapter 7 and the Ending summarizes the research achievements. Chapter 7 evaluates the hypotheses posed in Chapter 5 and analyzed in Chapter 6 and interprets the results obtained in light of previous research, taking into account the paradigmatic dualism, providing an interpretation of the research results from two perspectives: organizational and institutional. The final section of the publication also presents implications for theory and practice, research conclusions, and it discusses the limitations of the proposed model and directions for further research. The final subsection of Chapter 7 should be especially interesting for health-care managers of all levels, including heads of medical departments and lead nurses.

List of Abbreviations

Accreditation	Ministry of Health (Quality Monitoring Center (QMC) in Krakow) Accreditation – Polish version of hospital accreditation similar to some extent to the Joint Commission on Accreditation of Healthcare Organizations (JCAHO)
DRG	Diagnosis Related Groups, case-mix system (pl. Jednorodne Grupy Pacjentów)
Head physician (clinical manager)	the formal leader/manager of the hospital ward (head of the medical department)
HIS	Hospital IT systems
ICC	Individual cost center(s)
IPHI	Independent public health-care institution
LLC	Limited liability company
NHF	National Health Fund (pl. Narodowy Fundusz Zdrowia)
Overruns	The amount of services performed over the limit stipulated in the contract between a hospital and the National Health Fund.
PCoMSM	Path coefficients of the modified structural model (final model)
PCoPSM	Path coefficients of the preliminary structural model
TCA	Medical costing – treatment cost accounting
ToR	Terms of reference (description of the parameters of products and services purchased under public procurement and term of their delivery)

Ward lead nurse (or lead nurse)

A nurse who manages all the nurses in a particular hospital ward. At the same time, she or he reports to the head of the department (head physician) and the director of nursing.

Chapter 1

The Essence and Nature of Hospitals and Their Environment

1.1 Characteristics of Hospitals

The scientific output in the field of management control in hospitals is relatively small, so the base of theoretical considerations for the creation and adaptation of new solutions in hospitals has been the body of knowledge relating to other organizations. This is in line with the approach that says that the essential processes of managing hospitals do not deviate fundamentally from the logic of general management, especially strongly recognized in the commercial sector, although this requires a critical approach and consideration of their specifics. Management in health-care organizations, and, in particular, the management of hospitals, is perceived as more complex than management in the private sector, and, according to many researchers, the complexity of management in health care is constantly increasing (Firth-Cozens & Mowbray, 2001, pp. ii3–ii7; Nash, 2003, pp. 652–653; Smith, 2001, pp. 1073–1074; Waldman & Cohn, 2007, p. 33). This unique complexity of hospital management is influenced by the combination of a number of already problematic elements:

- affiliation of hospitals with higher public utility units;
- the multiple and often contradictory goals imposed on hospitals by both internal and external stakeholders;

- the materiality of the politicization of the environment;
- the unique nature of medical services;
- peculiarities of the health-care market characterized by the separation of the consumer of services from the payer;
- the complexity of basic operational processes;
- dominance of the control of basic operational processes by medical professionals.

A hospital, as a unit of higher public utility, is subject to influences different from a commercial organization. This is because the hospital does not have the ability to decide on all the goals it must achieve. Some of them are externally imposed, and these goals require process management that differs from that of enterprises. The hospital is not subject only to economic conditions, but social and political factors also play an important role, and it should be evaluated in this context – in social rather than economic terms.

Factors that increase the complexity and difficulty of hospital management also include less transparent transaction outcomes, more dispersed direction and control, and unclear signals from the environment (Durán et al., 2011, p. 27; Hodges et al., 1996; Lynn et al., 2000). In addition, hospital executives typically have less control over core business functions (e.g., pricing, shaping offerings and service delivery, etc.) than their corporate counterparts. This generates a number of problems, including the inability to take appropriate actions (e.g., referring patients, raising prices, closing unprofitable operations, etc.) to increase the efficiency of hospital operations (Pizzini, 2006, p. 184). At the same time, the continuous development of knowledge and technological innovations, including new drugs that provide improved disease treatment options, also requires more extensive multidisciplinary medical teams and technical support, generating ever new treatment costs (Bodenheimer, 2005, p. 932; Mintzberg, 2012, p. 4; Rye & Kimberly, 2007). Restricting access to new treatments to contain cost increases is impossible in practice, due, in part, to the fact that knowledge of medical advances is widely available, and societies demand access to treatments based on the latest medical knowledge. On the other hand, the same societies protest against increases in health-care premiums. In addition, the decision to use certain medical technologies is made autonomously by medical professionals, mainly doctors, who are obliged to use current medical technologies.

According to current legislation, in most European countries and Canada the state is responsible for delivering universal health insurance programs

and the availability of medical services, using an appropriately organized network of providers located at different levels of health care: primary health care (PHC), outpatient specialized care (OSC), and inpatient treatment in hospitals. A different situation is found in the United States, where a significant part of the responsibility is shifted to private insurance organizations. In Europe, most hospitals are owned by central or local governments, while in the United States, hospitals are mostly owned by non-government organizations and state and local governments. Thus, even in the United States, 76% are not-for-profit hospitals. However, regardless of the ownership and for-profit or not-for-profit status, the operation of hospitals is affected by the unique nature of the services provided by these organizations. Medical services – unlike other types of public and private services – have their own specificity in that (Shortell & Kaluzny, 1997):

- norming and measuring work results is more difficult;
- the work is more diverse and comprehensive;
- most of the work is immediate and cannot be postponed;
- work allows for little ambiguity or error;
- activities at work are highly independent of each other and require a high degree of coordination between different groups of specialists;
- the work requires an extremely high degree of specialization;
- organization members are highly specialized and are more loyal to their professional groups than to the organization;
- physicians, i.e., the group most responsible for generating services and expenditures, have little effective organizational and managerial control;
- there is a great deal of freedom in the choice of methods and means of treatment;
- treatment does not always result in a full recovery of the patient, and then there is no way to determine whether the result obtained was optimal, taking into account the current level of medical knowledge, the severity of the disease, and the physical and mental state of the patient;
- when a full cure occurs, it is not possible to determine the level of economic efficiency from both the patient's and the provider's point of view;
- there is a large knowledge gap between medical professionals and patients;
- the contact of doctors, psychologists, and other medical professionals with patients is largely shrouded in professional secrecy, which limits the possibility of ongoing verification of the quality of these services.

It should be noted that each single characteristic considered may also characterize an organization other than a hospital. Undoubtedly, immediacy of action characterizes the fire and police departments. High specialization is found in high-tech service companies. A small margin for error is found in aviation services. However, it is only in medical services that all the factors mentioned interact simultaneously, which significantly hinders the provision of services by hospitals.

The specificity of the processes undertaken in hospitals is also determined by the following characteristics:

- the obligation to maintain constant readiness to assist patients seven days a week and 24 hours a day, despite the fact that in many situations the cost of this readiness is not funded (the state fire department is not funded based on the number of fires in a given month, and the hospital is paid for the number of births over which it has no control);
- in most countries the inability of the majority of hospitals to set pricing policies and make the price dependent on the quality of the service, as well as the inability to choose a target market – the hospital must treat all patients whose conditions match its medical profile;
- the fact that most of the personnel providing health-care services are medical professionals (e.g., doctors, nurses, laboratory diagnosticians), who have a special legal status that protects them in the labor market through a system of licenses, called professional rights, granted by a professional corporation;
- restricting access to information on the work process (medical confidentiality) for managers and others outside the medical profession;
- the need to reconcile higher, abstract social goals (e.g., “the pricelessness of life”) and individual goals (e.g., “health regardless of cost”) with real economic constraints.

The characteristics indicated are the reason for the relatively significant limitation in the ability to control subordinate personnel, in conditions where up to 80% of hospital resources are under the control of physicians who have broad autonomy over diagnostic and therapeutic decisions (Doolin, 2002, p. 370; Goes & Zhan, 1995, p. 508). In other words, managers have no control over what diagnostics and therapy doctors order for patients, and it is these orders that create the costs of medical services.

In the market for hospital services, the costs of providing medical services are not financed directly by the patients themselves, but by an external

financing institution, a so-called third party. Indeed, while in outpatient care, especially specialized care, some patients pay out of their own pockets for the health services they receive. This is rarely the case in hospitals due to the much higher unit costs of services. This type of financing system transforms the nature of economic exchange, changing the paths of money flow and making it difficult to define the customer of medical facilities. The difficulty arises from the question: is it the one who pays or the one who uses these services? This separation of the function of the payer from the consumer should also be considered one of the main peculiarities of the market for medical services, since in the standard market model a group of consumers determines the demand for services with certain characteristics, and a group of companies is mobilized by this demand to invest and create supply. In the market for hospital services, on the other hand, patients receive care, but they do not directly pay for it, while insurance companies and government institutions, which neither consume nor provide services, finance the operation of hospitals, spreading the risk among citizens or insured. Thus, it is the payers for medical services or/and the parliament, government, and government institutions that shape the boundary conditions for private and public providers to enter the system. In other words, it is not patients, but institutions, that decide which provider will receive money for their treatment. In this arrangement, beneficiaries also do not have as much influence over the performance of hospitals in terms of quality of care as the clients of commercial companies do. In addition, institutions that purchase services on behalf of patients determine not only hospitals' revenues, but in many countries also the cost of treatment by setting minimum requirements in many areas, including the number of medical professionals employed and the medical technologies used, including drugs. This approach limits innovation, especially in the use of more efficient forms of work organization (Porter, 2010a, p. 2478).

From the structure of the market for health services also comes the extent of hospitals' autonomy. This is because embedding hospital management in the health-care system results in a significant limitation on hospital autonomy. This means that, compared to free market enterprises, hospitals can be semi-autonomous at best, since the scope of operational decisions made is limited by insurers and government policies related to, among other things, the financing of hospital services and the freedom to create relationships with medical workers and social policies. This problem also applies to private, for-profit hospitals, which, although characterized by much greater operational freedom, are also conditioned by a number of guidelines for the provision of medical services.

1.2 Hospitals' Structure and Management

Today's hospitals are large organizations employing from several hundred to even tens of thousands of employees, and trends observed in developed countries indicate consolidation and a continuous increase in the size of hospitals (Durán et al., 2011, p. 16). As a result, the coordination and control of such large and complex organizations requires a hierarchical structure and bureaucratic tools, as neither the market mechanism nor the collegial clan mechanism, based on shared values, socialization, and direct supervision (Ouchi, 1980), can meet the challenge of managing hundreds or even thousands of people organized into a single institution. However, on the other hand, the identified unique characteristics of hospitals, such as the performance of highly complex activities, the inability to clearly assess the efficiency and desirability of these activities, and the prevalence of multidisciplinary work teams, which makes it difficult to assess the individual contributions of employees and a functional structure consisting most often of more than a dozen separate medical specialties, all make centralized planning, assessment of the efficiency of activities, standardization of work processes, and decision-making characteristic of bureaucracies impossible (cf.: Mintzberg, 1980, p. 332). In addition, knowledge-intensive work, such as that performed by doctors in a hospital, creates a conflict of loyalties between professional affiliation and organizational responsibility, compounding the difficulty of maintaining bureaucratic means of control (Alvesson & Willmott, 2002, p. 623). As a result, hospital management differs significantly from corporate management not only because of its specificity, but also because of the determinants of clinical management, which involves interactions between management and physicians, relying on balancing management control and physicians' professional autonomy.

Hospital services involve the treatment of the most serious diseases, often requiring the coordinated action of many specialists from many fields and a complex infrastructure adapted to the work processes specific to each medical specialty. An aging population means that hospital patients, in addition to the so-called "acute" illnesses for which they are admitted to the hospital (e.g., an open fracture), also suffer from many "chronic" illnesses that further complicate and increase the risk of providing services. In addition, an increasingly demanding society expects an individualized approach and a focus of treatment not only around the underlying condition, but also consideration of the multiple needs of both the patient and his or her family participating in the care process. Thus, the idea of coordinated,

patient-centered care and even the integration of the patient's environment (family, friends) and their more active participation in the process of their treatment is becoming increasingly popular. This approach is called person-centered care (more in: (Ekman et al., 2011; Lewandowski et al., 2021)).

A hospital is generally responsible to numerous external stakeholders, such as the government, the community, the payers and accreditation agencies. In most European countries as well as in the United States, a hospital is run by a general director also called chief executive officer (CEO), who is responsible for the hospital's operations. In large hospitals, directors have several senior executives, who often carry the title of vice director or vice president responsible for various key service areas, such as nursing services, rehabilitation services, human resources, finance, and so forth. In Europe, the medical director is often in the position of a deputy director, while in the United States, this medical director creates a more parallel organizational structure to the administrative one.

Estimating the number of hospitals and comparing them with one other in each country is a complex task, as hospitals vary widely not only in size, but also in the complexity of the services provided. It is difficult to compare small hospitals specializing in one field of activity with several beds, e.g., maternity hospitals and large university hospitals with a thousand or more beds and a very wide range of specialties. Moreover, acute hospitals that perform surgical procedures have a different structure, number of employees, and costs compared to those focused on psychiatry or rehabilitation.

The analysis based on OECD statistics shows that in most developed countries, the majority of beds are in publicly owned hospitals (Table 1.1). And in those countries where there are not many publicly owned hospitals, such as in South Korea, the majority of beds are in not-for-profit hospitals (90.3%). From the statistics, it appears that only in three countries – Germany, Greece, and Italy – for-profit privately owned hospitals have just over 30% of beds. What is important, on average, publicly owned hospitals are larger in terms of the number of beds than privately owned, no matter whether for profit or not for profit. Summarizing the data contained in Table 1.1, it can be concluded that public hospitals play a major role in most developed countries of the world. While in the United States public hospitals account for just over 20% of all beds, when we consider not-for-profit hospitals, they already account for over 80% of the beds nationwide. Therefore, in the rest of the book, we will mainly focus on public and not-for-profit hospitals. In this case, Polish, Lithuanian, Irish, and British hospitals can be good examples.

Table 1.1 Comparison of hospitals in selected OECD countries

<i>Country</i>	<i>Number of hospitals</i>				<i>Number of beds in:</i>			
	<i>Publicly owned hospitals</i>	<i>Not-for-profit privately owned hospitals</i>	<i>For-profit privately owned hospitals</i>	<i>Total</i>	<i>Publicly owned hospitals</i>	<i>Not-for-profit privately owned hospitals</i>	<i>For-profit privately owned hospitals</i>	<i>Total</i>
Australia	695	116	543	1 354	61 797	13 552	17 477	92 826
Austria	143	42	82	267	43 121	10 244	9 508	62 873
Belgium	38	125		163	16 730	47 117		63 847
Canada	695		7	702	96 220		629	96 849
Chile	216		131	347	29 856		9 263	39 119
Czech Republic	164	3	96	263	58 906	240	10 344	69 490
Estonia	20	3	6	29	5 539	152	244	5 934
Finland	164		85	249	14 930		696	15 626
France	1 347	670	972	2 989	237 941	55 625	93 352	386 918
Germany	762	914	1 330	3 006	261 027	184 177	204 963	650 167
Greece	123	4	143	270	29 472	823	14 522	44 817
Iceland	8			8	1 039			1 039
Ireland	67		19	86	12 697		1 715	14 412
Israel	37	26	21	84	18 384	5 657	2 861	26 902
Italy	420	34	611	1 065	120 529	7 286	61 536	189 351
South Korea	222	3 884		4 106	63 417	592 471		655 888
Latvia	45		15	60	9 025		1 020	10 045
Lithuania	69		9	78	16 580		222	16 802
Mexico	1 514	20	3 375	4 909	92 011		34 438	126 449
New Zealand	83	26	50	159	10 784	440	1 460	12 684
Poland	747	25	464	1 236	186 322	3 683	44 412	234 417
Portugal	113	57	71	241	24 424	7 175	4 733	36 332
Slovenia	26		3	29	8 893		101	8 994
Spain	342	121	308	771	96 759	17 281	25 893	139 933
Türkiye	950		584	1 534	193 942		57 240	251 182
United Kingdom	1 921			1 921	162 723			162 723
United States	1 418	3 098	1 574	6 090	198 242	559 761	161 556	919 559

Country	Percentage of beds in:			Average number of beds in:			
	Publicly owned hospitals	Not-for-profit privately owned hospitals	For-profit privately owned hospitals	Publicly owned hospitals	Not-for-profit privately owned hospitals	For-profit privately owned hospitals	All hospitals
Australia	66.6%	14.6%	18.8%	89	117	32	69
Austria	68.6%	16.3%	15.1%	302	244	116	235
Belgium	26.2%	73.8%		440	377		392
Canada	99.4%		0.6%	138		90	138
Chile	76.3%		23.7%	138		71	113
Czech Republic	84.8%	0.3%	14.9%	359	80	108	264
Estonia	93.3%	2.6%	4.1%	277	51	41	205
Finland	95.5%		4.5%	91		8	63
France	61.5%	14.4%	24.1%	177	83	96	129
Germany	40.1%	28.3%	31.5%	343	202	154	216
Greece	65.8%	1.8%	32.4%	240	206	102	166
Iceland	100.0%			130			130
Ireland	88.1%		11.9%	190		90	168
Israel	68.3%	21.0%	10.6%	497	218	136	320
Italy	63.7%	3.8%	32.5%	287	214	101	178
South Korea	9.7%	90.3%		286	153		160
Latvia	89.8%		10.2%	201		68	167
Lithuania	98.7%		1.3%	240		25	215
Mexico	72.8%		27.2%	61	0	10	26
New Zealand	85.0%	3.5%	11.5%	130	17	29	80
Poland	79.5%	1.6%	18.9%	249	147	96	190
Portugal	67.2%	19.7%	13.0%	216	126	67	151
Slovenia	98.9%		1.1%	342		34	310
Spain	69.1%	12.3%	18.5%	283	143	84	181
Türkiye	77.2%		22.8%	204		98	164
United Kingdom	100.0%			85			85
United States	21.6%	60.9%	17.6%	140	181	103	151

Despite the different legal and systemic solutions adopted in each country for several decades, if we consider medium and large hospitals, essentially only two models of hospitals have taken shape around the world. The first, prevalent in Anglo-Saxon countries, is characterized by the role of physicians as consultants, in the United States often employed and paid outside the hospital. In these hospitals, the management of resources (beds, operating rooms, ancillary staff) is handled by administrative staff, who are carriers of managerial culture (logic), while the actual and most important work processes are carried out mainly by physicians, who are carriers of professional culture (logic) (Lewandowski & Sułkowski, 2018, p. 152). This creates “hybrid organizations” (Lewandowski & Sułkowska, 2017) with at least two clear dividing lines (two hierarchies) – a separate one for doctors and a separate one for managers and other hospital employees. For example, this type of hospital operates through academic departments and institutes. Each department has a high degree of autonomy, operating within a matrix structure. The model is market-oriented, that is, the method of financing is used as a tool to influence doctors’ behavior. F. Lega and C. DePietro (2005, p. 263) call this type of hospital a “decentralized two-headed hospital” (decentralized two-headed hospital).

The second model, more common in Europe, is characterized by salaried physicians and centralized responsibility. Resources are allocated by top management to specialized units (clinics and/or wards). All of the department’s resources are uniformly managed by the physician-director of the specialty (head of department), who is endowed with a high degree of autonomy in this regard. This type of hospital is therefore more oriented toward bureaucratic mechanisms, reducing the importance of market mechanisms. This type of hospital can be referred to as a “centralized single-headed hospital” (centralized single-headed hospital) (Lega & DePietro, 2005, p. 263). The common feature of the two types of hospitals discussed is a functional organizational structure centered around medical specialties.

In this context, it seems important to note that although for years many scholars have been calling for a remodeling of the structure of hospitals into a process-oriented one, which should improve the efficiency of hospitals and the quality of the services they provide (Vera & Kuntz, 2007, p. 55), hospitals are still organized into functional structures, centered around particular medical specialties, and there is no indication that the organizational form of hospitals will change significantly in the foreseeable future.

The reasons for the functional organization of hospitals are many (du Gay & Pedersen, 2020, p. 222). First, it stems from making efforts to match

hospitals to the predetermined outcomes of a standardized treatment program for particular groups of conditions, in accordance with the principles of evidence-based medicine. Second, the functional structure makes it possible to organize the work process around the skills and knowledge of medical specialists – physicians who are responsible for categorizing and diagnosing patients' needs and executing a tailored treatment process. Such a division ensures a high specialization of personnel and knowledge, leading to high-quality treatment of specific, separate conditions (e.g., the cardiology department perfectly treats cardiovascular diseases, but already has difficulty treating the digestive system damaged by the cardiovascular drugs administered). As a result, functional division enables standardization of knowledge and skills, which is the primary coordination mechanism in professional bureaucracies such as hospitals. Third, organizing around skills allows for the promotion of the development of individual specialties and related knowledge, which is an important part of the culture of the medical profession. If one considers the autonomy of each medical specialty, with its scientific associations and regional and national consultants and its rather loose ties to other specialties, it becomes logical to think in terms of an individual strategy for each specialty in hospitals. Specialists do not make their choices about patients and treatment methods randomly; they are the result of the many years of training a specialist undergoes, often starting as early as in college or well before he or she began working in a particular department of a particular hospital. This means that the skills required in a given specialty and the standards set by professional associations and training institutions outside the organization play an important role in determining the strategies preferred by professionals. Hence, to an important extent, all hospital departments in a specialty have similar strategies, but rather separate from departments in other specialties.

The aforementioned factors make it extremely difficult to change the functional model of hospital organization from one focused on individual specialties to one focused around the needs of modern patients, who often suffer from multiple conditions simultaneously. Such a transformation would require systemic changes that ensure the influence of citizens as potential patients on the formation of state policy and organizations of medical professionals. This has been partially done through legal regulations that increase the rights of patients and the obligations of hospitals, an example of which is the introduction of legislation that facilitates the determination of compensation and redress in the case of medical events, which has increased the possibilities of patients in actions to prove malpractice, i.e.,

deviation from the treatment procedure adopted for a given condition. This has had a strong impact on adherence to medical procedures and has made the distribution of medical work and the way doctors organize their work even more focused on specialization and departmentalization of treatment, reducing the area of responsibility of doctors to their chosen specialty and the likelihood of medical error due to better alignment of skills and infrastructure. However, these changes have resulted neither in relatively significant improvements in the coordination of care and treatment nor in the efficiency of hospitals.

In summary, it should be said that the hospital has features characteristic of all organizations, but it is distinguished by a specific system of values and goals, as well as intra-organizational relations and relations with the environment. As a unit of the higher public utility units, it is subject to different legal regulations, forcing the reconciliation of efficiency with the legalism of action and the realization of higher social goals. It can be said that the peculiarities of medical services, the health-care market, and the organization of hospitals lead to difficulties in the management of these facilities, particularly in the area of management control. This peculiarity makes the adaptation of management and control techniques used in commercial organizations to hospitals complex, and the results obtained from such transfer are not obvious. Another important factor affecting the complexity of hospital management – in addition to the peculiarities of hospitals indicated thus far – are the medical professionals who dominate the main “production” processes in hospitals. Thus, to study the mechanisms of management control in hospitals, which is the subject of this work, it is necessary to understand what role professionals play in them, how they obtain power, how large this power is, and what interactions it has with the jurisdiction of managers and other members of the organization.

1.3 Medical Profession and Professional Bureaucracy

The literature on professionalism dates back to the early 20th century; however, due to social changes in the second half of the 20th century, the modern approach to professionalism has changed significantly (Noordegraaf, 2020, p. 206). Professionalism is no longer viewed functionally, as a collegial organization of experts whose main attribute is the asymmetry of knowledge and experience, requiring clients to trust and professionals to respect clients and colleagues (Abbott, 1988, p. 5), and as a buffer to defend the

common good against the overexpansion of capitalism (Durkheim, 1960, p. 116). Today, professionalism is treated as a form of control, assuming that it does not serve existing social needs, but rather dictates to a distracted society the definitions of needs and how to meet them, although “the shortcomings of protective professionalism are increasingly clear [and] protective professionalism and protected professionals are becoming outdated” (Noordegraaf, 2020, p. 207).

Thus, a profession is a highly specialized and collectively knowledge- and skill-based group of individuals who are given special status within the workforce, whose members are certified through a formal educational program controlled by the profession; its qualified members have exclusive jurisdiction to perform certain activities vis-à-vis society and protection in this regard in the labor market (Freidson, 2001, pp. 127–128). In this approach, the attributes of the profession are self-regulation, self-control, and social duty, but also dominance and autonomy, which means that the profession performs two mismatched functions in society – “servant” and “supervisor.” Professionals should have an ideology that gives priority to doing valuable and necessary work, rather than economic profitability and self-satisfaction. Thus, within the profession, there is a contradiction between altruism and self-interest.

Some researchers (Berlant, 1975; Larson & Larson, 1977, p. 309) attribute the goals of creating economic monopolies to professionalism, an overt focus on market interference aimed at intellectual and organizational domination of a certain sensitive social sphere in order to achieve wealth and prestige. On the one hand, the professions attack and destroy “charlatans,” while, on the other hand, they force concessions from unorganized clients and the state (Abbott, 1988, p. 87), as manifested, for example, in the treatment of advanced cancers, when the therapy provided by academic medicine (doctors) in many cases leads to death, and the takeover of the treatment process by someone outside the medical profession (a quack) is punishable. Consequently, professionalism can serve to protect members of the profession in the labor market, giving them status, power, and money. At the same time, the social construction associated with professionalism is so important in the organization of relationships between transactors (Freidson, 2001, p. 60) that it is mentioned on par with the market relationship described by Adam Smith, in which consumers exercise control over the work done by suppliers, and on par with Max Weber’s bureaucratic relationship, where control is exercised by managers (Andreasson et al., 2018, p. 25). The profession differs from these two forms of relationship in that it is

the professionals themselves, i.e., the performers, who control the tasks they perform. Professionals, who are mere technicians, must serve their clients. They can practice as “freelancers,” and they can advise clients based on their knowledge, but they must largely follow the instructions of those who pay them and accept their choices. In contrast, members of the true profession can modify the requirements of their clients and even make decisions for them and act against their will (Freidson, 2001, p. 122; Salvatore et al., 2018, p. 776). An example of the latter action is asking the court to incapacitate patients when they refuse to undergo necessary medical procedures.

The professional ideology of service thus goes much further than fulfilling the wishes of clients; it serves higher goals and derives its legitimacy from serving higher values, such as justice, truth, health, and life. Therefore, the profession can claim the right to act independently and evaluate its effects, instead of faithful service (Freidson, 2001, p. 122). It should be noted that in the remainder of the monograph, reference to the profession will usually mean the professional group of doctors; nurses, pharmacists, and laboratory technicians are strictly subordinate to doctors and must be commissioned by doctors to do their work, since mostly doctors can prescribe reimbursable drugs and order diagnostics and therapeutic technologies.

As mentioned, despite the differences between the two distinguished forms of hospital organization (centralized single-headed and centralized double-headed), their common feature is that they are organized along the lines of bureaucratic institutions, with a functional diversified structure. However, hospital bureaucracies, due to the nature of the tasks they perform and the characteristics of the main performers of these tasks, i.e., medical professionals, differ significantly from this traditional bureaucracy. The first to point out this difference was H. Mintzberg, distinguishing between mechanical bureaucracy and professional bureaucracy (1980, p. 333), and M. Lipsky, calling it street-level bureaucracy (1971; Lipsky & Hill, 1993). Although initially M. Lipsky referred to the provision of professional services to the mass customer, such as security (police) and education, the concept also partially reflects the relationship in health care (Hupe & Hill, 2016, p. 61). The distinction between two types of bureaucracy – Weberian, also called machine bureaucracy, and professional bureaucracy, including street-level bureaucracy – is crucial, as it is the type of bureaucracy that has a significant impact on how management and management control are carried out.

Weberian bureaucracy and professional bureaucracy differ primarily in the source of the origin of standardization. Traditional bureaucracy generates

its own standards by creating a technical structure and designing work standards and various types of organizational (internal) laws. Professional bureaucracy standards, on the other hand, derive largely from generally available scientific knowledge and recommendations from self-governing professional associations, which are located and legally empowered outside the organization's structure. Employees of professional bureaucracies have similar goals and standards to their colleagues in other professional bureaucracies. Thus, while machine bureaucracies rely on authority of a hierarchical nature – the power of the office – professional bureaucracies emphasize authority of a professional nature – the power of knowledge (Abernethy & Stoelwinder, 1990, p. 20; Mintzberg, 1993a, p. 192).

Professional bureaucracy therefore requires coordination in terms of skill standardization, training, and socialization. This is the situation in hospitals, where professionals have well-defined skills and have learned how to expertly perform their tasks. As a result, the work is highly specialized horizontally. Control over one's own work means that the specialist works relatively independently of his colleagues but closely with the clients he serves (Mintzberg, 1993a, p. 190). For example, a doctor works alone in his office, relatively hidden from his colleagues and superiors, so he has wide autonomy in dealing with patients. Especially since access to medical records, one of the outcomes of the patient encounter, is severely restricted not only for superiors in the administrative line, but also to some extent professionally. In such a decentralized environment, it is crucial to ensure an adequate level of control to monitor, at least to some extent, what medical professionals are doing, what results they are achieving, and how they can be motivated and disciplined (Hupe & Hill, 2016, p. 61).

Therefore, training within the professional bureaucracy has one goal – to internalize standards that serve clients and coordinate professional work. Therefore, a professional bureaucracy has a clear bottom-up method of decision making, in which both independent professionals and strategic managers must accept proposed changes (Andreasson et al., 2018, p. 26). This means that a professional bureaucracy can be a highly democratic structure, at least for professionals. In fact, professionals can not only control their own work, but also take collective control over administrative decisions that affect them, such as the hiring of colleagues, their promotion, and the distribution of resources. This results in the emergence of parallel administrative hierarchies: a bottom-up, democratic one for professionals and a top-down, hierarchical one for support staff (Mintzberg, 1993a, p. 198). With regard to hospitals, P. du Gay and K.Z. Pedersen (2020, p. 222) argue that classical

bureaucratic dependencies are not incompatible with the exercise of professional autonomy.

In general, managers in professional bureaucracies, especially those at higher levels, play key roles at the boundaries of the organization, between professionals inside the organization and external stakeholders, i.e., representatives of the governing bodies – owners, the government, patient associations. On the one hand, professionals expect managers to protect their autonomy and “buffer” them from external pressures, and, on the other hand, they expect managers to solicit external support for the organization, both in terms of gaining external legitimacy and in terms of raising funds for operations. Thus, the manager’s role largely consists of maintaining external contacts, acting as a public relations spokesperson, and negotiating with external agencies, such as public and private contributors. This leads to a situation where doctors’ ability to order expensive diagnostics and therapies depends on the manager’s effectiveness.

The considerations outlined above indicate the complex nature of the relationship between professionals and managers in hospitals, which leads to tensions between the manager and medical professional. This is because in enterprises, the top management has the authority to accept or reject the recommendations of the managers of the various functional departments and professionals to ensure the integration of these functions to achieve compatible and purposeful management control. In health care, on the other hand, the top management has neither the authority nor the right to interfere in the activities of specialists. Nor is it in a position to either evaluate or inspect the diagnosis issued and treatment recommended, no matter how costly it might be. These tensions are considered by some researchers to be the reason for the inability to improve quality and reduce costs in health care (Garelick & Fagin, 2005, p. 241; Waldman & Cohn, 2007, p. 27). They call for dialogue and cooperation between professionals and managers, pointing to their shared values of altruism, service, and overcoming challenges (Waldman & Cohn, 2007, p. 40).

The tension between professionals and managers is largely due to the strong political pressure to increase efficiency and reduce costs in hospitals as well as to the significant differences in the nature of the work and areas of responsibility between the two roles (Witman et al., 2010, p. 478). Managers are more interested in organizational aspects, such as efficiency, cost savings, and cost containment, while professionals are more focused on providing medical care (de Campos et al., 2017, p. 293). Studies have shown that the differences between the doctor’s role and the manager’s role are

significant. The doctor's role is to focus on individual patients, solve current problems quickly, and take a scientific approach, while the manager's role is to focus on groups, politics and human motivations, seek efficiency, and accept situations where some problems are unsolvable (Table 1.2). Thus, professionals are autonomous reactive "doers" and decision-makers prepared to react immediately, and managers are participatory designers prepared to collaborate, delegate tasks, and share responsibility (Les MacLeod, 2012, p. 13).

In general, a certain level of conflict between managers and doctors is directly related to the structure of modern health-care systems. The task of senior hospital managers is to bring stronger public control of professionals into health care, based on performance indicators, management by objectives, and medical processes based on evidence and clinical guidelines (Kuhlmann et al., 2013, p. 2). Managers also have a powerful weapon in the form of integrated information systems capable of collecting and processing

Table 1.2. Differences between the role of a physician and the role of a manager

<i>Physicians</i>	<i>Managers</i>
Focus attention on individual patients	Focus on population groups
Not primarily concerned with costs	Focus on efficiency and resources
Contact patients face to face	Rarely meet patients or their families
Are expected to solve all problems	Choose the problems to be solved
Are trained to be independent and competitive	Expect to share responsibility
Present a scientific approach	Deal with politics and human motivations
Poorly tolerate unsolvable problems	Tolerate many unsolvable problems
High loyalty to a professional group	Low loyalty to a professional group
Loyal to patients	Loyal to the organization
Significant clinical autonomy	Little autonomy, dependence on rules and procedures
Evaluation of work results confidential (medical confidentiality)	Evaluation of work results available to the public
High social and professional status	Medium social and professional status

Source: Adapted from (Les MacLeod, 2012, p. 13; Davies, 2000, p. 116).

large amounts of medical and cost data, the use of which is capable of creating “disciplined doctors” (Reich, 2012, p. 1021).

Pressure from governments to contain cost growth is leading to a situation where top hospital management is trying to carry this pressure deep into the organizational structure and force medical professionals to reduce costs and increase productivity and efficiency. In hospitals, it is not managers, but medical department managers (heads) in professional roles and subordinate bedside professionals who must take these pro-efficiency measures. Thus, managers involve physicians in bureaucratic mechanisms (e.g., developing guidelines, implementing clinical pathways), as well as economic matters related to management, revenue, and hospital costs. Managers push doctors to engage not only in individual patient problems, which they are trained to do and which is the essence of their work, but also to have the survival of the entire organization in mind. Under these conditions, it is expected that tighter control will increase the responsibility of professionals for the safety of society (Lambert et al., 2006) and the cost of health care, reducing or at least limiting the rate of their growth, which has been higher than the rate of GDP growth in the EU-15 and in the United States for many years (Oliveira Martins & de la Maisonnette, 2013). However, it is difficult to find evidence that neoliberal policies based on the principles of new public management and the introduction of professional managers into the roles of hospital leaders increase control over doctors, limit the high autonomy and independence of specialists employed at the operational level (Salter, 2007; von Knorring et al., 2010), and improve the efficiency of health care (Bach, 1994; Manning, 2001; Kuhlmann et al., 2013). It seems fair to say that new regulatory tools, such as clinical guidelines, and evidence-based medicine may also increase the power of the profession, since doctors are the experts who develop the scientific evidence and medical guidelines on which policy decisions are made (Kuhlmann & Burau, 2008).

As mentioned, one of the relatively frequently mentioned fields of conflict between doctors and managers is the focus on different areas of hospital management. G. Laffel and D. Blumenthal (1989, p. 2871) state that most quality assurance programs in health care focus exclusively on the technical knowledge and interpersonal skills of physicians, and little attention is paid to other ways of creating quality, such as effective organization and the ability to mobilize internal or external resources. In addition, it is noted that cultural differences between physicians and managers in hospitals are related to how quality management initiatives are accepted and implemented, which is reflected in hospital performance levels (Klopper-Kes, 2011, p. 14).

The relationship between physicians and managers can also be considered from an institutional perspective, which makes an important contribution to understanding the behavior of important professional groups in a highly institutionalized setting, such as health-care organizations, among others (Andersen, 2008, p. 55; Eldenburg et al., 2017, p. 60). It is pointed out that each of the most important orders of modern societies has a central logic, that is, a set of material practices and symbolic constructs that constitutes its organizational principles (Powell & DiMaggio, 2012, p. 248). In health care, there are at least two competing logics: the logic of the medical profession and the logic of management (Andersson & Liff, 2018, p. 72). The logic of the medical profession is also called professional logic or medical logic, and it basically applies only to physicians (cf.: (Ramsdal & Bjørkquist, 2019, p. 1723; Reay & Hinings, 2009, p. 630)). Managerial logic is also often interchangeably referred to as business logic (Reay & Hinings, 2009, p. 630). The two logics are quite different from each other (more in: (Lewandowski & Sułkowski, 2018)), which is particularly important in analyses involving hospitals.

Institutional theory in the study of management control mainly focuses on isomorphic pressures and irrationality (Lounsbury, 2008, p. 350), but this is at odds with contemporary views of hospital performance (Lewandowski & Sułkowski, 2018). With the advent of theories on institutional logics, the view of the organization through the prism of homogeneity and bounded rationality could be replaced by a combination of organizational heterogeneity and rationality. In this sense, the perspective of institutional logics encompasses organizations and explains not only homogeneity, but also heterogeneity, which it is able to explain in terms of organizational practices, providing a more conclusive perspective of causality (Damayanathi & Gooneratne, 2017, p. 525).

The concept of institutional logic, which evolved from institutional theory, is an important theoretical construct that explains the creation of a sense of common purpose and unity within a certain area, referring to a set of belief systems and related practices that shape people's cognition and behavior, being "the basis of rules taken for granted" (Reay & Hinings, 2009, p. 629). Institutional logics can be defined as "socially constructed, historical patterns of cultural symbols and material practices, assumptions, values and beliefs through which individuals produce and reproduce their material existence, organize time and space, and make sense of their daily activities" (Thornton et al., 2012, p. 51). In addition, institutional logics are "practices and symbols that are available to individuals, groups and organizations, which can be

further developed, manipulated and used for their own benefit” (Friedland & Alford, 1991, p. 232). Each institutional logic consists of elementary categories (building blocks) that represent the cultural symbols and material practices characteristic of the individual. These building blocks define the organizational rules that shape individual and organizational preferences and interests, and the behavioral repertoire through which interests and preferences are achieved in the sphere of influence of a particular order. Theoretically, these elements categorize how individuals and organizations, influenced by any institutional order, can understand their sense of self-identity and identification, that is: who they are, their logic of action, their vocabularies of motives, and what language is most relevant to them (Thornton et al., 2012, p. 54). Institutional logic gives identity and meaning to actors operating within an area, such as treatment or management (Skelcher & Smith, 2015, p. 437), and influences the strategy, structure, and practices of organizations (Greenwood et al., 2011). Institutional logic, having material, cultural, and symbolic elements, can provide normative guidelines for social actors and explain how to interpret organizational reality, e.g., what constitutes appropriate behavior, what constitutes success, what are its symbols? The logic of the medical profession, for example, may emphasize autonomy and the pursuit of quality without necessarily drawing attention to efficiency and cost, while business logic may emphasize efficiency as well as quality, but in direct relation to the strategic position of the product or service in the market and its price (Lewandowski & Sułkowski, 2018, p. 149; Reay & Hinings, 2009, p. 630).

In Poland, until the 1990s, doctors ruled hospitals indivisibly, dominating hospitals with their institutional logic – the logic of medical professionals. The placing of managers at the head of hospitals and the change in the health-care financing formula in 1999, from budget financing to financing based on the number and type of services provided, resulted in the entry of business logic into the jurisdiction of medical professionals (Lewandowski & Sułkowski, 2018, p. 152). Funding on the basis of services rendered is intended to encourage hospitals with monetary “rewards” to allocate resources in a more “market-based” manner, thereby introducing business logic, albeit in a highly indirect and decentralized manner (Abernethy et al., 2006, p. 807). The introduction of business logic has redefined and expanded the perception of health care, no longer just as a social issue, but also an economic one. Health care is no longer a medical issue belonging exclusively to medical professionals, but it has become an economic issue in which economists, managers, financiers, and accountants also play major

roles. This results in a situation where hospitals, to a large extent, acquire the characteristics of businesses and must focus on reducing costs and increasing revenues. Although managerial logic contradicts the traditional humanitarian role of medicine, it is not possible to exempt medical professionals from management control based on economic performance, since they are the main operational staff, and it is primarily on their activities that the performance of medical entities depends.

Currently, doctors have to deal with the conflicting demands of professional and managerial logic (Ramsdal & Bjørkquist, 2019, p. 1723; Reay & Hinings, 2009). For example, some hospitals use case-mix tariffs (JGPs) to screen patients and then pressure physicians to admit only those patients deemed “profitable” under this approach (Lewandowski, 2014, p. 132). Managers at some hospitals are also implementing specialized software to advise and control physicians on the use of optimizing hospital length of stay and appropriate medical procedures for patients in the context of their clinical condition (diagnosis codes) to maximize revenue from the payer (Samuel et al., 2005, p. 250).

When discussing the concept of professionalism, it is also important to note that it is built on two basic assumptions. First, the work is so specialized that it can only be performed by those who have specialized (very extensive) training and relevant experience, and second, the work cannot be standardized or rationalized because it is too complex (Freidson, 2001, p. 17). These assumptions not only limit the performance of certain work to members of the profession, but also give the profession the exclusive right to supervise this work and evaluate its results (Freidson, 2001, p. 84; Noordegraaf, 2020, pp. 206–207).

The domination of professions in the labor market is only possible if there is a widespread belief that the work that professionals do is so different from the work done by others that autonomy in daily work and the resulting self-control are justified. The dominance of the professions is as strong as their clients will allow them to be, and as strong as the professionals are protected by legal arrangements (Abbott, 1988, p. 141). Formal institutions and regulations determine the economic and social conditions under which professionals can control their own work. Ideology, on the other hand, is what makes society tolerate and even support the institutionalization of the profession. For neither economic power nor political power is inherent in knowledge and skill (Freidson, 2001, p. 105). In hospitals, doctors’ autonomy in daily practice includes control over four main areas:

1. diagnosis and treatment – decisions on the choice of methods of diagnosis and treatment, to whom to refer and where, which drugs and procedures to use;
2. evaluation of care – judgments about the appropriateness of care for a particular patient or general patterns of care provided;
3. the type and number of medical tasks – the ability of doctors to avoid control, decisions on the extent to which doctors can independently set their own work schedule, priorities and workload;
4. independence related to taking up work – refers directly to features of doctors' employment contracts, decisions on the extent to which clinicians have autonomous rights to take up activities outside their main duties, such as research, teaching, work in scientific associations, private practice, especially during working hours (Davies & Harrison, 2003, p. 647).

The aforementioned areas have a significant impact on both the direct costs of treating patients associated with the medical technologies used and the productivity of the specialists employed by the hospital. Broad autonomy within the aforementioned four scopes makes it very difficult, and sometimes even illusory, for managers to exercise control over doctors. The problem of measuring the performance of the profession is all the more complex because medical professionals defend their autonomy precisely against the possibility of measuring their performance. This defense stems from the fact that an important element affecting the position of the profession in the workplace and society is precisely the measurability of results. When the results of work are easily measurable, giving those outside the profession the opportunity to evaluate them, the risk of losing the profession's control over an area increases, as it makes it easier for competitors to demonstrate the superiority of their treatment, if, of course, such an advantage exists (Abbott, 1988, p. 46). The example relatively most often cited in this context is the increasing annexation by physiotherapists of areas until recently reserved only for rehabilitation specialists.

The previously indicated recognition by professionals of the control of a course of action (treatment) as one of the most important principles leads to a situation where more complex methods of action are easier to defend, and professions try to apply unique courses of action (treatment), even when the results of individual methods of action cannot be measured and when a universal approach would suffice. In many cases, when doctors fail to make an appropriate diagnosis, they do not abandon the field of activity, admitting

their inability to solve the problem, but they give specific recommendations such as “please avoid stress, get plenty of rest, eat healthy, reduce excess weight, take moderate physical activity at least an hour a day (walking outdoors or cycling) and come see me in a month.” In this approach, even the complete ineffectiveness of specialized treatment does not lead to its abandonment. It is needed for competitive reasons, as it allows the area of medical activity to be defended against all sorts of quacks and healers (Abbott, 1988, p. 46).

The profession constantly needs to justify its privileged position. It must neutralize oppositional ideologies that provide arguments in favor of solutions aimed at controlling the work of professionals by the market or the bureaucracy, i.e., managers (Freidson, 2001, p. 106; Noordegraaf, 2020). This is due to the belief that the mere possession of exclusivity in a certain area already gives enormous power to the extent that the public accepts the definitions of a medical problem and good treatment results proposed by the incumbent (incumbent) profession (Abbott, 1988, p. 136). An example of such a state can be found in physiotherapy, which has developed its own methods of diagnosis and treatment, but is at a disadvantage in relation to the incumbent medical profession. According to the solutions adopted in Poland, a physiotherapist can provide publicly funded outpatient therapy on the basis of a referral from a family doctor, who often does not have the appropriate competence (training) in physiotherapy. In this case, although other doctors are not able to demonstrate their positive contribution to treatment, the very legal entrenchment of the profession gives them a huge advantage. Thus, maintaining the impediments to performance measurement, especially from outside the profession, is crucial for the profession, since its power comes precisely from the right to define the problem and to measure the results and quality of treatment as well as from the lack of comparisons.

1.4 Past Efforts to Improve Hospital Efficiency

The unique characteristics of hospitals described earlier make increasing efficiency and limiting the growth of health-care costs very difficult. For example, total (public and private) health spending in the European Union has been steadily increasing and consumes a significant portion of member states' resources. On average, this spending has increased from 7.1% of GDP in 1980 to 9.9% in 2017. A steady increase in spending is also observed in

inpatient treatment (Schwierz, 2016), which is a significant problem when hospitals consume the largest share of all health resources in most European countries, averaging 36.3% of €1.3 trillion (EU-27 in 2017). In Poland, the share of health spending in the GDP has fluctuated around 6.5% in recent years, with spending on inpatient treatment slightly exceeding 30% of all health spending (Miszczynska & Antczak, 2020, pp. 27–29). Additionally, hospitals, like health care as a whole, are recognized as organizations where phenomena such as waste, unnecessary administrative burdens, errors in the implementation of treatment processes, and even fraud and abuse are relatively frequently identified (Covaleski et al., 1993, p. 74; Samuel et al., 2005, p. 250; Schwierz, 2016; Stadhouders et al., 2019, p. 71). These dysfunctions can lead to significant overspending on health care, which seems to be borne out by the situation in the United States, where it has been estimated that this is about 20% of all health spending (Berwick & Hackbarth, 2012, p. 1513).

Already in the second half of the last century, due to the systematic increase in the cost of health care, especially hospital care, major changes were initiated in both the organization of health care systems and approaches to hospital management (Saltman et al., 2011, p. 2). Some of these were modeled on management strategies used in private companies. These reforms were aimed at introducing more flexible solutions in the area of management that could stimulate greater institutional autonomy, and thus more effective integration of different types of services and increase the overall efficiency of the health-care delivery process (Saltman et al., 2011, p. 3). In many countries reforms were initiated to implement a neoliberal way of managing public hospitals, which can be encapsulated in the concept of new public management (NPM) (Hood, 1991, 1995) or new public administration (more on this issue: (Greenwood et al., 2002)). However, the measures carried out so far to reduce the cost of hospital treatment have yielded unclear results, particularly in the long term (Schwierz, 2016).

As already mentioned, until the 1980s in western Europe (von Knorring et al., 2010, p. 2) and until the 1990s in most post-communist countries, hospitals were indivisibly managed by physicians. However, due to the rising cost of hospital treatment and unsatisfactory quality of services, professional managers were invited to manage these organizations. As a result, cost reduction initiatives were undertaken in two areas. The first concerned reducing the number of patients who end up in hospitals. In Germany alone, it is estimated that 20% of hospitalizations could be avoided if effective prevention and treatment of chronic diseases in