

## **BENCHMARKING FOR PUBLIC HOSPITAL MANAGEMENT – RESEARCH FINDINGS**

*Agnieszka Sitko-Lutek\**, *Marta Cholewa-Wiktor\*\**

### **Abstract**

**Background.** Benchmarking is a conceptual framework of effective management policy that allows for organisational improvements. It has been successfully implemented in enterprises and is more and more often applied at public institutions, including health care institutions.

**Research aims.** The aim of this article is to present to what extent benchmarking may be applied at public hospitals.

**Methodology.** The survey method and the research instrument in the form of an individually prepared and customized questionnaire was used. The research was carried out among the management boards of 35 public hospitals in the Lubelskie voivodeship, which constitutes 90% of the statistical population. The financial standing of the entity in the studied group served the purpose of an additional characteristic piece of information.

**Key findings.** The research findings have allowed to determine how many hospitals in the studied voivodeship use benchmarking, what is the dominant type, in what areas it is implemented and how frequently the healthcare facilities use benchmarking to improve activities of a given organization. The most frequently used types of benchmarking in public hospitals have been distinguished as: internal and competitive benchmarking. The main motivations to implement this conceptual framework in healthcare facilities are connected with both qualitative and economic aspects.

**Keywords:** Benchmarking, Hospital, Hospital management, Benchmarking in hospitals, Benchmarking barriers, Benchmarking results

### **INTRODUCTION**

Poor operation of the healthcare system has been one of the main social and political issues in Poland in recent years. Public hospitals play a significant role in the system and the majority of them operate without sufficient financial resources. This results in the constant deficit of financial resources to cover the costs of basic activities, not to mention

healthcare man-  
agers look for concepts which may increase the effectiveness of their  
activities. This results from the fact that the methods used to date  
have proven to be insufficient and because of that, managers increas-  
ingly adopt solutions which have been successful in business, in terms  
of both quantifiable economic and quality benefits.

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Benchmarking is a solution used successfully in companies, which can also be used in public organisations. It is one of the most frequently used management concepts in contemporary business organizations. This statement is confirmed by findings of the research carried out by Bain&Company, according to which in 2008 more than 70% of companies used this concept and at the same time satisfaction with its use was evaluated at 3.83 within the scale from 1 (minimum) to 5 (maximum) (Rigby & Bilodeau, 2010). The analysis of trends regarding benchmarking also indicates that the concept is increasingly popular, as demonstrated by the fact that the number of organizations using this solution increases year on year (Marciszewska & Pieriegud, 2009).

The growing popularity of benchmarking in commercial organizations has given rise to the intention to study the possibilities of using the concept in public service organizations, especially in units requiring immediate improvements, e.g. hospitals. Therefore, the aim of the article is to present the scope, within which benchmarking is used by public hospitals and the main outcomes resulting from its use in certain facilities. Findings of the research carried out in public hospitals in the Lubelskie Voivodeship have been presented. The research target group consisted of management boards in 35 public hospitals in this voivodeship, which constitutes 90% of the statistical population. The research instrument in the form of an individually prepared questionnaire was used for this purpose.

## **BENCHMARKING – THE IMPORTANCE OF THE CONCEPT AND OPPORTUNITIES FOR HEALTHCARE ORGANIZATIONS**

Many definitions of the term of benchmarking may be found in the literature; they are characterized by the emphasis of different aspects of this conceptual framework. The first definition of benchmarking was formulated by R.C. Camp, the Head for Benchmarking in Rank Xerox. The author, who is claimed to be the pioneer of benchmarking, defines it as: 'searching for the most effective methods for a given activity allowing to develop a competitive edge' (Camp, 1989, p.25). Because of the fact that first attempts to introduce benchmarking were made by hospital governing bodies in the United States, it is worth mentioning the American Society for Quality's definition, according to which benchmarking is defined as:

The process of improvement, during which an organization evaluates its achievements and compares them with results of the best organizations in its class, determines how those organizations have made achievements and then uses this information to improve the organization' (Sower, Duffy & Kohers, 2008, p.3).

Despite the large number of terminologies available in the literature, common elements characteristic of a given concept can be found in each conceptual framework. Firstly, benchmarking involves more than simple duplication of other organisations' successes. Due to the fact that each organization operates in a unique environment, which is influenced by unique opportunities and risks as well as strengths and weaknesses, the processes taking place in it are also unique. Because of that benchmarking cannot be based solely on reproductive implementation of solutions but on the understanding of the way which will ensure the success of the organization. Knowledge acquired in this manner should be used to develop a new, individual solution. Apart from that benchmarking is a continuous process based on the principle of continuous and sustainable development, that is, the end of one improvement should be the beginning of the search for new potential areas of examples.

The use of benchmarking in healthcare facility management is practically unlimited and may involve each domain of operations (Ziębicki, 2005). It applies to administrative and management activities as well as quasi-operational and operational services. However, it should be noted that choosing an appropriate model is the key element necessary for success. Because of the fact that goals are achieved in a public hospital through the execution of a vast number of processes, it is difficult to clearly indicate the leader hospital, which may serve as the benchmark for all activities. The findings of the research carried out in hospitals in the Lubelskie Voivodeship proved that a hospital performs well when it has one highly profitable ward even if other wards are inefficient (Orzeł, 2012). Accordingly, when choosing the leader for comparison it is necessary not to focus on facilities but on processes. It is difficult to choose one organization where all processes are carried out at the highest level out of organizations, in which there is such a variety of processes.

### **USING BENCHMARKING BY PUBLIC HOSPITALS- METHODOLOGY AND THE FINDINGS OF THE RESEARCH**

The research was carried out among the representatives of the management board of 35 public hospitals in Lublin Voivodeship, which covers almost 90% of the target group. The research was carried out among representatives of managerial staff, namely managers, associate directors or other members of the management team. Managers completed questionnaires personally or answered the questions read by the person conducting the research. The questionnaire consists of 12 questions which enabled to identify the rate of usage of benchmarking in particular agency. The questionnaire starts with the question of whether

the benchmarking strategy is applied in a particular hospital or not, then representatives were asked about how and how often they use it and, finally, in which field it is mostly done. The next thematic block is about implementation of this solution, there one can find questions concerning reasons, major obstacles, stages of introducing benchmarking strategy and ways of collecting data. The last thematic block is composed of issues concerning the results of using this strategy and its forecast for the future. Our questionnaire ends up with demographics including the referential level of the hospital, its financial standing and the quantity defined by variables such as number of employees or hospital beds. The research area was chosen purposefully, being determined mainly by the fact that an instrument, which is to support the management of subordinate entities by the use of benchmarking, was developed in the Department for Health and Social Policy of the Marshall Office for the Lubelskie Voivodeship in Lublin (<http://www.lubelskie.pl>). Therefore, it can be assumed that at least the entities subordinate to the Department will use the solution offered within the framework of benchmarking.

The facilities studied were characterized on the basis of affiliation to a reference group and size – determined on the basis of the number of personnel employed and the number of hospital beds (Table 1).

**Table 1.** Characteristics of the Studied Group

Reference level	I	II	III	Other (psychiatric)
	66%	14%	11%	9%
Size	<100	101-300	301-500	>500
	5%	26%	43%	26%
Number of hospital beds	51-150	151-250	301-500	>500
	15%	34%	37%	14%

Source: Own work output on the basis of research findings.

The financial standing of the entity in the studied group was an additional characteristic piece of information. Only 20% of units did not have any debts and nearly 80% of hospitals were in debt. The optimistic fact is that in the majority of facilities (59%), debts are decreasing in comparison to previous years.

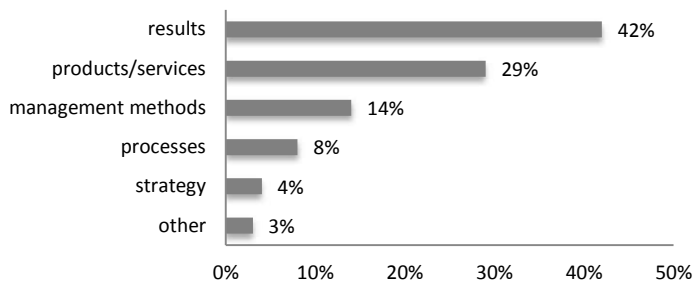
The analysis of the research material obtained showed that 69% of the hospitals studied use benchmarking to some extent. The remaining entities do not use this conceptual framework. It should be underlined that almost half of the respondents said in the beginning of the research that they did not use benchmarking. However, after a detailed explanation of the conceptual framework they confirmed that they did use that type of activity. This confirms B. Kozuch's and A. Tylek's the-

sis that a small number of indications to this concept in research is not due to its inapplicability but rather the lack of knowledge of the management boards who do not associate the activities in practice with that conceptual framework (Kozuch & Tylek, 2012). Taking into consideration the frequency of the application of benchmarking, only 23% of entities studied use it on a continual basis. Most often those facilities used specialized outsourcing or software recommended by the Marshall Office. Almost half of the hospitals studied use benchmarking in a cyclic manner, i.e. they repeat it at certain intervals, which is most often related to the assessment of a facility. The remaining group (29%) consists of facilities where the concept is used occasionally – when a problem arises, that is in an emergency situation.

Hospitals which use benchmarking declared that they used both external (80%) and internal benchmarking (65%). However, it should be noted that despite the popularity of internal benchmarking, the opportunities for its application in a hospital are limited and practically only apply to ancillary activities. This is due to the fact that it is difficult to compare primary activities of various branches that are based on standard medical procedures. External benchmarking is the main form of benchmarking in the healthcare system. Among the hospitals declaring that they use external benchmarking: 93% use competitive benchmarking, while only 7% use general benchmarking (comparing operations with an organization from other industries). The advantage of competitive benchmarking over its other forms stems from the fact that in the case of public hospitals many entities have one owner, e.g. the regional government of the Lubelskie Voivodeship or the Medical University or belong to an association of hospitals such as: the Convention of District Hospitals of the Lubelskie Voivodeship and the Convention of Hospitals in the Region of Zamojszczyzna.

Therefore, the exchange of information among those entities is much easier than in the case of commercial organizations, at least in theory. Unfortunately, in practice there are barriers and the research findings confirmed that there was a resistance to develop cooperation even within one founding body. When analysing the areas in which the concept is used, it appears that most hospitals use benchmarking of results, products/services and management methods (Figure 1). High interest in benchmarking of results may arise from the necessity to carry out an evaluation of activities, especially regarding financial aspects. Because of the fact that in most facilities the financial results are not satisfactory, the facilities managers in the initially compare their results with those achieved by other hospitals. A small percentage of feedback (3%) included the areas called 'other', in which the respondents reported such

areas as: assets and human resources as well as monitoring the execution of contracts with the National Health Protection Fund.

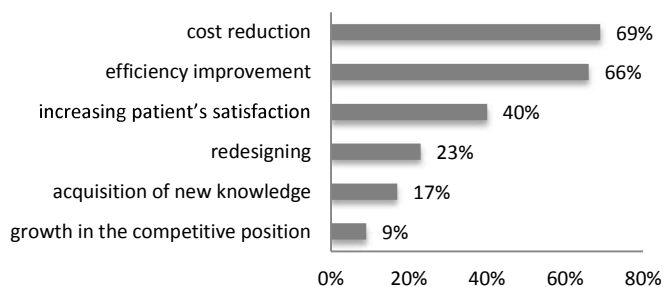


**Figure 1.** Areas of Benchmarking in Public Hospitals\*

\*The answers do not add up to 100 because there was a possibility to mark more than 1 answer to a question.

Source: Own work output on the basis of the carried out research.

Two dominant groups of answers can be observed when analysing main motives for using benchmarking in public hospitals. The first, related to the economic domain, is concerned with motives such as: cost reduction (69%) and the improvement of the efficiency of activities (66%). The reasons connected with improving the quality of services provided by a hospital as a result of benchmarking include: increasing patient's satisfaction (40%) and acquiring new knowledge (17%). Other arguments leading to benchmarking activities include: reorganization of activities, expressed as the opportunity to redesign the organisational structure, processes and activities (23%) and growth in competitive position (9%) – Figure 2.

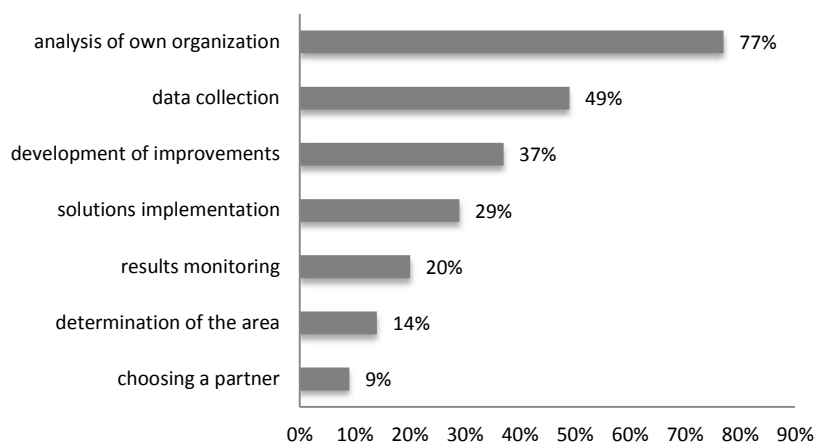


**Figure 2.** Motives for the Introduction of Benchmarking in Public Hospitals\*

\*The answers do not add up to 100 because there was a possibility to mark more than 1 answer to a question.

Source: Own work output on the basis of the carried out research.

In the literature there are many methodologies of benchmarking implementation, which consist of a different number of phases according to authors (from several to dozens). Nevertheless, they contain some common elements characteristic for this concept such as: determination of the improvement area, analysis of own organization, choosing a partner, data and information collection, development and implementation of improvements and results monitoring. The frequency of the benchmarking implementation procedures that are individually customized and used by the studied hospitals is presented in Figure 3.



**Figure 3.** Stages of Benchmarking Implementation in Public Hospitals\*

\*The answers do not add up to 100 because there was a possibility to mark more than 1 answer.

Source: Own work output on the basis of the carried out research.

In most of the hospitals studied, the analysis of own organization is carried out prior to the comparison process (77%). Almost a half of them collect information on best practices and 40% of hospitals develop improvements, but they are not always implemented. The result connected with the feedback regarding partner selection is interesting – only 9% of indications. Especially due to the fact that this is the key stage for the success of the concept, because according to its definition, one has to be compared to the best in order for benchmarking to be successful (Harrington, 1996). Most likely it results from the fact that hospitals compare their activities with better performing entities but not necessarily a leader in a given field since the availability of information may be the main selection criterion.

Obtaining information about model solutions is one of the most important and the most difficult stages of benchmarking. There are many ways to obtain them and can be divided into two main groups (Węgrzyn, 2000; Bramham, 2004):

1. Indirect methods, e.g.: trade unions, professional journals, conferences, consultancy offices, science and research institutes, universities, intermediary institutions and offices.
2. Direct methods, e.g.: own databases, reports and publications, visits to other organizations, surveys, customers, suppliers, employees, etc.

The collection of information from sources available to the public is the main way to obtain information on best practices in public hospitals (54%). Other sources of knowledge of model activities include: the provision of information directly from the compared hospital (17%) and compared organization other than a hospital (2%). Answers marked in the survey as 'other, what?', where the respondents could enlist additional issues, constituted a significant group (27%). The management boards of facilities most frequently enlisted the following sources of information: a specialized outsourcing agency performing services for a hospital, provision of information by the Marshall Office – it applies to hospitals subordinate to the regional government of the Lubelskie Voivodship – and information exchange through the cooperation of hospitals within conventions, e.g. the Convention of District Hospitals of the Lubelskie Voivodship and the Convention of Hospitals in the Region of Zamojszczyzna.

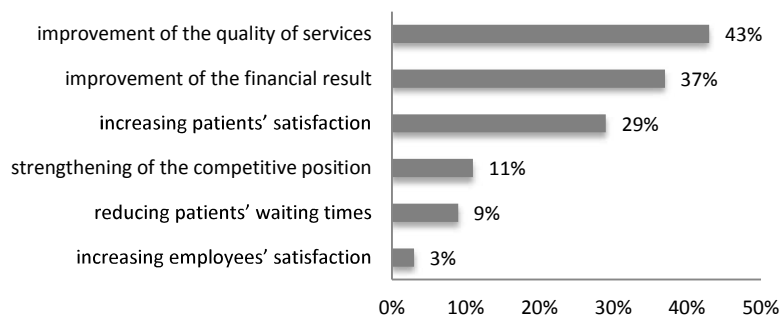
### **ADVANTAGES AND RISKS RESULTING FROM THE USE OF BENCHMARKING**

Benchmarking is a process, the implementation of which can bring about many benefits to the organization. First and foremost, it is connected with continual improvement of the quality of services, which improves the competitive position and helps to meet the expectations of increasingly demanding patients. This results from the fact that benchmarking allows to 'teach an organization how to learn' and continually improve the quality of activities and processes. Benchmarking is based on learning from others without having to re-invent what has already been used. Such searching for the best solutions provides an organization with three main benefits (Bogan & English, 2006): (a) it requires fewer resources in comparison with other methods for knowledge acquisition, such as, e.g. simulation, prototyping, (b) it extends beyond the assumed framework of an organization (e.g. cultural) providing access to solutions which may never be created, (c) is the fastest way to acquire knowledge.

Research carried out in public hospitals in the Lubelskie Voivodship allowed for identifying the main benefits of the use of benchmarking in healthcare facilities. The research findings has shown that



benchmarking has an influence on both qualitative and economic results (Figure 4). In public hospitals benchmarking contributes mainly to the improvement of the quality of services (43%) and secondly to the improvement of the financial result (37%). Significant results have been also obtained in relation to the increase of patient's satisfaction level (29%). The effects such as: strengthening of the competitive position, increasing employees' satisfaction and reducing patients' waiting times were of secondary importance.

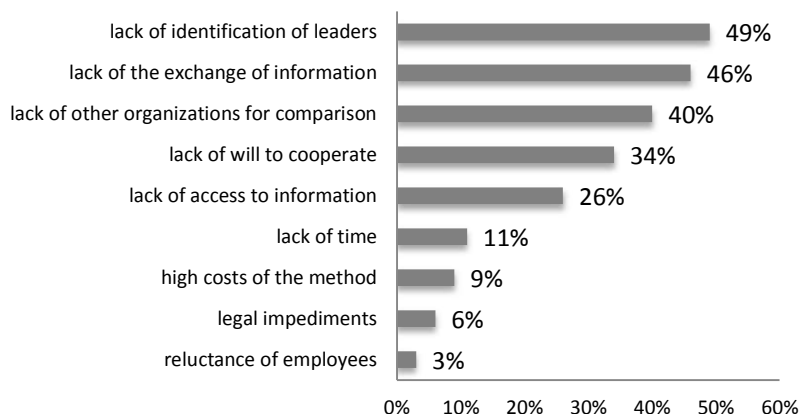


**Figure 4.** Effects of the Use of Benchmarking in Public Hospitals\*

\*The answers do not add up to 100 because there was a possibility to mark more than 1 answer.

Source: Own work output on the basis of the carried out research.

The use of new management concepts has positive effects but also some limitations. In the case of benchmarking in public hospitals the main obstacle in the use of this concept is the lack of specific identification of hospitals-leaders in a given field (Figure 5).



**Figure 5.** Barriers in the Use of Benchmarking in Public Hospitals\*

\*The answers do not add up to 100 because there was a possibility to mark more than 1 answer.

Source: Own work output on the basis of the carried out research.

Virtually all major obstacles in the implementation of benchmarking in the management system of a healthcare facility are connected with the issues of cooperation and the exchange of information. The issues include the following barriers: lack of the exchange of information among hospitals (46%), lack of identification of undertakings, to which a hospital could be compared (40%), lack of will to cooperate (34%) and lack of access to information (26%). According to managers, other organizational barriers such as: lack of time, high costs, legal impediments and the reluctance of employees are not major problems.

The entities' plans regarding the use of the conceptual framework of benchmarking as well as the level of its application in the healthcare facility management system were accounted for. As much as 60% of the hospitals studied do not plan to use the concept in the future, which is probably because it is perceived by the management board as a one-off, remedial action. Managers do not search for other improvement processes after obtaining desired effects, which is contrary to the basic assumptions of this conceptual framework. 40% of the studied entities are going to use benchmarking in the following areas: nosocomial infections, clinical activities, management activities, medical services/hospital healthcare, economic results/costs.

## CONCLUSIONS

A secure healthcare facility as a public utility organisation requires adaptation of management tools taken from business to suit specific conditions, in which it operates. Nevertheless, using solutions which have been successful in business can bring about quantifiable financial benefit to an organization. Because of that, the popularity of benchmarking has been constantly increasing also in public hospitals. This stems from the fact that the implementation of this conceptual framework allows a healthcare facility to 'learn how to learn' in order to continually increase the quality of provided services. It is worth noting that in the case of public hospitals, especially those which have one owner, benchmarking is a win-win situation, i.e. it can be beneficial for each party, also in terms of a model organization. The research findings presented in this article confirm that hospitals enter into this form of cooperation in different areas and with various frequency and obtain quantifiable benefits, i.e. improvement of financial result, increasing the quality of services and patient satisfaction. Motivations to implement benchmarking in healthcare facilities are also different and are connected with both qualitative and economic aspects. The research findings obtained also indicate to some difficulties and limitations. Primarily, benchmarking is used intuitively in the facilities stud-

ied rather than according to business good practices. Hospitals usually limit themselves to implementing selected stages of benchmarking or to commissioning specialised outsourcing services to carry them out. Especially within the 'discovery' of leader's success factors there is a lack of activities aiming to learn about the real reasons for competitive advantage.

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## BENCHMARKING PUBLICZNEGO SZPITALA KLINICZNEGO – WYNIKI BADAŃ

### Abstrakt

**Tło badań.** Benchmarking to ramy koncepcyjne efektywnej polityki zarządzania, która pozwala na usprawnienia organizacyjne. Został z powodzeniem wdrożony w przedsiębiorstwach i jest coraz częściej stosowany w instytucjach publicznych, w tym zakładach opieki zdrowotnej.

**Cel badań.** Celem tego artykułu jest przedstawienie, w jakim zakresie benchmarking może być stosowany w szpitalach publicznych.

**Metodyka.** W artykule zastosowano metodę badań i instrument badawczy w postaci kwestionariusza. Badania przeprowadzono wśród zarządów 35 szpitali publicznych w województwie lubelskim, co stanowi 90% populacji statystycznej. Sytuacja finansowa podmiotów w badanej grupie służyły stanowi dodatkową informację.

**Kluczowe wnioski.** Wyniki badań pozwoliły określić, jak wiele szpitali w województwie lubelskim wykorzystuje benchmarking, jaki jest dominujący typ, w jakich obszarach jest wykorzystywany i jak często zakłady opieki zdrowotnej korzystają z benchmarkingu w celu poprawy swojej działalności. Najczęściej stosowane rodzaje benchmarkingu w szpitalach publicznych to: wewnętrzny i konkurencyjny. Głównie motywację do wykorzystywania stanowią aspekty jakościowe i ekonomiczne.

**Słowa kluczowe:** benchmarking, szpital, zarządzanie szpitalem, benchmarking w szpitalach, bariery benchmarkingu, wyniki benchmarkingu