

## ECONOMICS

## Sociology

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## HEALTHCARE QUALITY MANAGEMENT IN GREAT BRITAIN AND CZECH REPUBLIC

**ABSTRACT.** Healthcare quality can be defined as the summary of the results achieved in prevention, diagnosis and treatment, based on findings of medical science and practice, or as the degree of excellence of the provided care in relation to a contemporary level of knowledge and technological development and in compliance with economic possibilities. Research and monitoring of the effectiveness of quality systems can be implemented in different ways: (1) measuring the quality system through the entire institution rating (self-assessment or accreditation), based on the assumption that appropriate care is the result of well-organized processes and systematic quality assurance and improvement; (2) measuring critical points in the process of care – compliance of specialists with recommended practices or professional standards; (3) measuring outcomes in relation to the benefit of patients, such as clinical outcomes, client satisfaction and perceived quality of life in connection with the results of the provided care. The paper deals with monitoring the effectiveness of quality in health facilities based on customer satisfaction and compares patient satisfaction rating methodologies applied in the United Kingdom and in Czech Republic.

### Introduction

A quality system in healthcare sector can be defined as a set of organizational structures, individual responsibilities, procedures, processes and resources needed to constantly improve the quality of provided medical services, with the ultimate goal to improve health, quality of life and satisfaction of residents. Therefore, quality system involves the entire process of creating procedures, collecting information, setting standards and evaluating outcomes of what is organized in the healthcare sector as healthcare and medical services (ASHRM, 2009). When using the term “quality system”, the authors emphasize that it is an internally coherent concept of quality elements that is to help healthcare institutions

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meet the desired qualitative goals of their mission. It should be a method that provides sufficient confidence that a process or a service will meet the requirements of a comprehensive approach to its quality (Briš *et al.*, 2010).

Nowadays, many analyses and comparisons of methods aiming to develop and improve healthcare quality are conducted (Grabau, 2012). Emphasis in such works is put on the statement that effective implementation of quality development plans cannot be achieved unless quality development and efficiency development are pursued together (Kenney, 2008). Efficiency pursuit must therefore be an organic part of quality development and vice versa. Benchmarking could become one of the methods (tools) to increase managing quality of medical services (Keehley *et al.*, 2008).

The paper concentrates on quality improvement procedures, namely, on one its component – patient satisfaction survey. The article presents and compares such surveys in Czech and British hospitals, where in both environments they have been used as integral measures of quality management systems.

### 1. Trends of quality management in healthcare sector

Quality management systems in healthcare sector can be defined as a summary of organizational structure, particular responsibilities, procedures and resources, needed to continuously improve medical services, and as a target being the health and quality of life improvement and public satisfaction. Thus, quality system includes means of procedures development, data gathering, standards forming and assessment of results reached in organising healthcare and medical services (Heidemann, 2001). “Continuous quality improvement” or “total quality control” are names for a philosophy of management commitment to constant organizational self-evaluation and innovation (James, 1989).

Since the introduction of quality management by healthcare institutions in different countries, many studies were performed, regarding the parts important for successful implementation of such quality management. Most of those studies were about quality systems in hospitals. They are demonstrating that there is not only influence from external environment but mostly incentives of upper management, motivation factors based of institutional culture or their characteristics (Whittaker, 2001).

In order to regulate the quality growth, it is required to know the determinants having an impact on quality growth (Keyte, 2004). The key typical determinants are the following: (1) quality system documentation, (2) staff involvement in quality, (3) continuous system and management monitoring using updated quality standards, (4) human resource management in quality, and (5) quality improvement procedures, which are actually feedback in learning preceding determinants (quality system functions) (Briš, 2005). Referring closer to the determinant no. 5, it includes the following requirements:

- patients satisfaction research,
- use of individual care plans,
- staff satisfaction research,
- internal audit,
- monitoring and resolving complaints and unwanted events,
- research of doctors and institutions opinions,
- staff Interviews regarding their satisfaction in workplace,
- system users needs research,
- managerial information system,
- multidisciplinary internal audit,
- functioning of comities-traumatic, infections, medicinals and others,

- external audit (Ohno, 1988).

Patient centeredness (client orientation, patient satisfaction and patient experience) is recommended by World Health Organisation (WHO, 2003) among various key dimensions of hospital performance measurement. In consequence, patients satisfaction researches are becoming the basic part of healthcare institutions quality management (Womack *et al.*, 2003).

## 2. Benchmarking

Benchmarking is one of the analytical-synthetic methods of quality management and a useful tool of strategic managerial accounting. Its definitions and classifications vary between researchers / organizations according to the time and criteria they focus on (Kyrö, 2003). Basic principles of benchmarking are accurately defined as: a process of systematic and continuous comparing and measuring of products, services products, and methods of those organizations with the ones chosen as the suitable for such comparison (model competitors) with the aim to define goals of own activities improvement. Thus, it is possible to conclude that benchmarking constitutes a tool for the institution internal processes and it is the active part of quality management. The definition of American Productivity & Quality Center (APQC) is very often mentioned: benchmarking is recognized as a process of continuous comparing and measuring of the institution with the leading ones around the world to gather information helping to acquire and realise the activities for own improvement (APQC, 2011). Its aim is to search for the best practices in order to achieve the best results. The essence of benchmarking is learning from the bests how to improve the activity in its various areas.

Benchmarking spread-out into the business environment where firstly it became the tool for processes measuring, based on comparing (Camp, 1995). It has already established its position as an instrument to improve performance and competitiveness in business life (Kyrö, 2003). As its implementation has been also suggested in science, health care and local government institutions (Anderson and Camp, 1995), benchmarking has expanded from private sector into public- and semi-public sectors, including into healthcare sector. Benchmarking enables to secure the continuous analysis of each healthcare institution in the competitive environment.

Nowadays, there are different types of benchmarking, depending on the criteria used of their division. Due to the entity used as the standard for comparison, an internal and an external benchmarking are distinguished. Healthcare institutions can apply both – an internal benchmarking (comparison within the same ward or between various wards in the same institution) and in a broader perspective – an external benchmarking (comparison to other healthcare institutions) (Łuczak and Macuda, 2014). Taking into account a subject of benchmarking, four types of benchmarking can be mentioned (Macuda, 2015):

- internal benchmarking (the simplest form of benchmarking, possible to apply since healthcare institutions have similar processes, operations and functions) which involves comparing different organizational units in the same institution – its main objective is to determine the internal performance standards of an organization;
- competitive benchmarking – comparison of processes and services with the closest competitors (healthcare institutions characterized by the same funding bodies, similar size, the same range of medical services, similar territorial range of their activities, and the same treatment mode and period);
- functional benchmarking exceeding beyond the limit of direct competition (e.g. comparisons are made between healthcare institutions with a different profile or from various territorial range of their activities, but they are related to common areas such as cleaning, materials storage, diagnosis laboratory, pharmacy, etc.), which even

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allows to adopt practices and solutions from different industries (e.g. from hotels) with similar functions as long as the measurables are comparable);

- process (generic) benchmarking which enables healthcare institutions to manage and control operating processes (benchmarking associated with the analysis of economic processes occurring in every sphere of activity, that is, regardless of industry).

Benchmarking relates to measure and assess the performance in terms of financial management (financial results, costs and revenues), the quality of medical services, efficiency in the use of resources (the number of doctors and nurses per one hospitalized patient; bed occupancy), and satisfaction of the patient

Benchmarking became long time ago one of the phenomenon being used by contemporary management. Benchmarking has remained a stable and reliable methodology through several decades and various performance improvement trends. In global scale, benchmarking is recognized as a universally accepted and broadly used managerial tool, but in Czech Republic it is used just in a limited scale.

### **3. Monitoring patient satisfaction in the UK and the CR**

Monitoring patient satisfaction is an important element in monitoring the quality of health facilities. Its main purpose is to compare (benchmarking) health facilities in terms of their perception of the quality of patient care. It can be a guide to identify problem areas for health facilities management. From the perspective of the patient, it may be an important guide in the selection of health facility. Monitoring satisfaction is an important part of modern trends in management of health facilities focused on patients. Monitoring patient satisfaction through questionnaires was held in the United Kingdom (UK) for the first time in 2000 and by means of gradual development has reached its present form. An extensive presentation is placed on the project website ([www.cqc.org.uk/PatientSurveyInpatient2009](http://www.cqc.org.uk/PatientSurveyInpatient2009)). In 2001, a project "Quality through the Eyes of Patients" was firstly introduced at the instigation of the Ministry of Health of the Czech Republic (CR). However, the true beginning of a uniform monitoring patient satisfaction can be considered year 2005, when the Ministry of Health unified the previously used questionnaires in hospitals directly managed by the Ministry of Health. Project results were presented in the media and at professional conferences, as well as a detailed presentation on its website ([www.hodnoceni-nemocnic.cz](http://www.hodnoceni-nemocnic.cz)).

### **4. Data collection methodologies**

To assess patient satisfaction in hospital wards, both countries use a methodology based on a sample questionnaire survey with uniform questionnaires. A scored core questionnaire for the inpatient survey 2009 contained 87 fundamental questions in the UK, while it was 58 in the CR. Both questionnaires were based on so-called Picker Dimensions of Quality formulated by Picker Institute. Questions are divided into eight basic dimensions (groups) on (Picker Institute, 2010):

- patient's admission to the facility,
- esteem – regard – respect for the patient,
- coordination and integration of patient care,
- information and communication with the patient,
- physical comfort of the patient,
- emotional support to the patient,
- involving family and the dear ones in the patient's treatment,
- release of the patient from the facility.

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The main difference is a data collection methodology. In the UK, a corresponding form is used based on summoning a carefully selected sample of patients for the given period, with an emphasis on randomness, and compliance with socio-demographic characteristics of the original group of patients (Picker Institute Europe, 2009). This method is highly accurate, but it also has relatively high demands on personnel and project funding. In the CR, questionnaires are distributed to patients within health facilities and their collection is in the form of special collection boxes located in the hospital premises, which provides considerable cost savings to the survey.

There are two different methods of distributing the questionnaires used, i.e., a continuous distribution of questionnaires to selected patients throughout the year and a campaign collection of questionnaires with a complete selection, when the questionnaires are distributed to all patients in the selected time period (e.g. calendar month) (Raiter, 2010). The first method shows high demands for providing a proper patient selection methodology for the survey. A wrong patient selection method may bias its results. Giving that at the time of the distribution of questionnaires are not yet known socio-demographic characteristics of the final outcome of patients hospitalized in the health facility, it is very difficult to determine a sampling methodology. Therefore, the second option is rather preferred using the campaign collection of questionnaires with a complete selection, although that has increased demands on the staff of the health facility, but at the same time reduces the problem of selection at the selection of the appropriate campaign period only. Regarding the fact that in both cases the questionnaires are distributed to hospital personnel, the risk of influencing the survey results by the hospital staff is increased. In the first case it may involve the distribution of questionnaires to patients with expected satisfaction only. In the second case, the risk may be viewed in changing the behaviour of hospital staff during the campaign and thus significant influence of perceptions of quality of patient care. This option is for the British system eliminated by a sampling methodology and correspondence (health facility personnel are not involved in the distribution of questionnaires).

## 5. Data analysis methodologies

A data analysis methodology in the CR and the UK differs greatly. To reach satisfactory results during evaluation, it is important to use proper methods during survey appraisal.

Considering the generally very high level of quality of health care, the CR uses stricter methods (hereinafter referred to as “Methodology A”), which enables to find even slight differences in the quality of provided health care. Each question has one typically selected item of the scale reflecting the best patient ratings, which is assigned value 1 (Raiter, 2010). All other valid items are then assigned value 0. To ensure better comparability of results we assign within this paper the best ratings with value 100. The outcomes of this interpretation are the following statistical indicators generally showing the percentage of patients who are completely satisfied. The disadvantage of this rating method is disregarding the scale of responses. This disadvantage may occur especially in low frequency responses with the best ratings, where other responses are necessary for understanding the real assessment of the questions by patients. In contrast, the British method (hereinafter referred to as “Methodology B”) uses a rating based on uniformly assigned values to individual responses ranging from 0 to 100 (Care Quality Commission, 2009). This method allows calculating all responses using the scale.

Both rating methods can be presented, for example, on the question “When you had important questions to ask a doctor, did you get answers that you could understand?” A comparison of rating scores is shown in the *Table 1*.

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Table 1. A sample of individual ratings using Methodology A and Methodology B

Response	Methodology A	Methodology B
Always	100	100
Mostly	0	67
Sometimes	0	33
Never	0	0
Did not ask	-	-

Source: own elaboration.

Generally speaking, applying the Methodology B in the CR would reduce the gap among the individual health facilities. The rating would, however, include in the current Methodology A all rating scores from the response scale. The current system used in the CR cannot in terms of comparison of health facilities objectively decide on the order at the same or very close number of the best responses. To tighten up the assessment using the Methodology B, a different layout of the rating scale can be applied (e.g. 100, 50, 25, 0), which would, to some extent, prefer the best responses (Briš *et al.*, 2007).

**6. Influence of used methodology on rating patient satisfaction**

Influence of the methodology can be illustrated on the data of the frequency of the responses. To compare different methods of rating, we chose University Hospital Hradec Králové-FN HK (the first in the rating of university hospitals) and University Hospital-FN Brno (the last in the rating of university hospitals). To demonstrate the influence of the method used on the rating results, question No. 16 was chosen: “How would you rate the hospital food?”, which is characterized by a low occurrence of the best values for all monitored facilities. For comparison, both previously described methods, i.e., Methodology A and Methodology B were used.

Table 2. Evaluation of question No. 16 using both methods

Response (ratings)	FN Brno absolute frequency	FN HK absolute frequency	Method A points	Method B points
Very good	476	647	100	100
Rather good	1098	799	0	67
Rather bad	212	86	0	33
Very bad	59	24	0	0
Did not eat hospital food	33	18	-	-
Unknown	50	38	-	-
Total	(1928-33-50) 1845	(1612-18-38) 1556	x	x
Overall rating Method A (Average rating by Method A – points)	25.80	41.58	x	x
Overall rating Method B (Average rating by Method B – points)	69.46	77.81	x	x

Source: own elaboration.

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Final assessment is than share of sum of absolute coefficient frequency multiplication and multi-point rankings of all answers by respondents from t of rated total number answers. For example this is for Brno Faculty Hospital, using method B:

$$(476 \times 100 + 1098 \times 67 + 212 \times 33 + 59 \times 0) / (476 + 1098 + 212 + 59) = 69,46$$

For greater clarity, a graphic representation of results has been prepared (see Fig. 1).

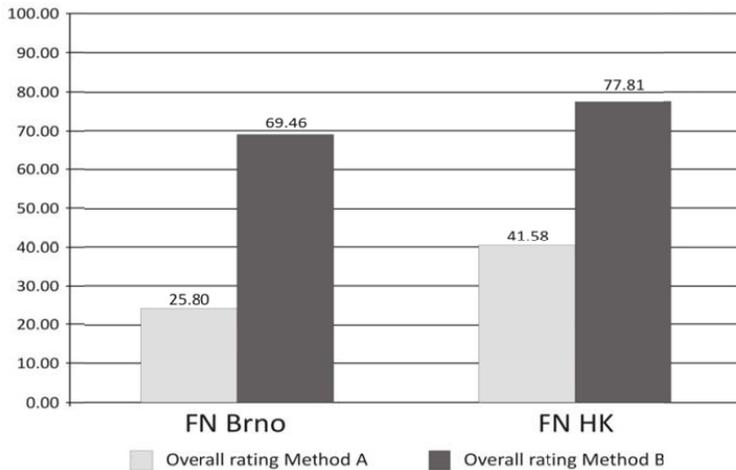


Figure 1. Evaluation of question No. 16 using both methods in points

Source: own elaboration.

The evaluation of question confirms the fact that stated in the preceding paragraph. Changing the rating method from method A to method B causes reduction in the difference between the FN Brno and the FN Hradec Králové from the initial 15.78 points to 8.34 points. At the same time, a significant increase in quality ratings in the monitored area takes place. Aggregate characteristics are usually calculated using the average, which is prone to extreme values. Using both methods, just the result of question No. 16 may be considered as this extreme value. The rating is important from the perspective of the overall quality assessment as well.

As opposed to the above question can be used question No. 29 “When you had important questions to ask a nurse, did you get answers that you could understand?” which is evident in the high proportion of the best values (Raiter, 2010).

Final assessment is similar to Question No.16, part of sum of absolute coefficient frequency and multi-point rankings of all answers by respondents from rated total number of answers.

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Table 3. Evaluation of question No. 29 using both methods

Response (ratings)	FN Brno absolute frequency	FN HK absolute frequency	Method A points	Method B points
Always	1331	1190	100	100
Usually	440	304	0	67
Sometimes	59	31	0	33
Never	8	1	0	0
Did not ask	53	50	-	-
Unknown	37	35	-	-
Total	(1928-53-37) 1838	(1611-50-35) 1526	x	x
Overall rating Method A (Average rating by Method A – points)	72.42	77.98	x	x
Overall rating Method B (Average rating by Method B – points)	89.51	92.00	x	x

Source: own elaboration.

For greater clarity, a graphic representation of results has been prepared (see Fig. 2).

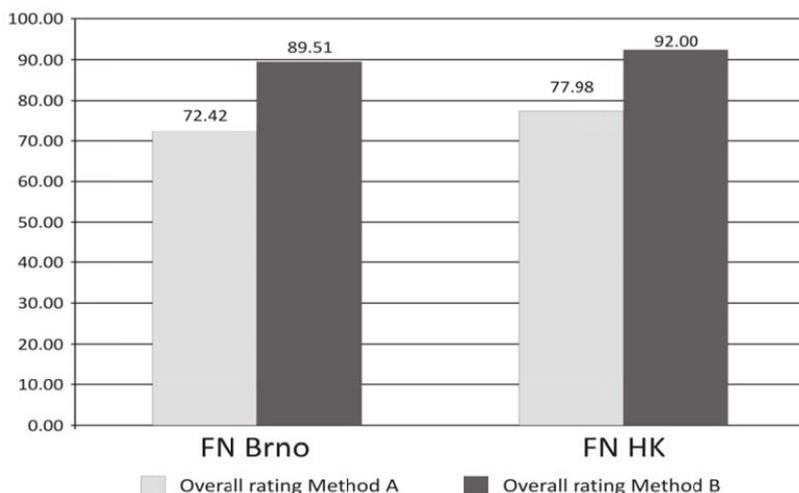


Figure 2. Evaluation of question No. 29 using both methods in points

Source: own elaboration.

Even in question No. 29 reduction in the ratings between the two facilities from the original value of 5.56 points to 2.49 points is visible. Thus, the effect reducing the differences between health facilities is apparent.

As of the above, it is preferred to consider the assessment by method B, since it is better reflecting real distribution of the answers collection (all the answers important from of the evaluation view are taken into consideration).

## Conclusion

Monitoring patient satisfaction is an integral part of monitoring the quality of health care in hospitals. We focused in this paper on a brief description of the main differences in the monitoring patient satisfaction in the CR and the UK. Differences can be seen in two basic areas, i.e., in data collection methodology and their rating methodology.

The main difference in the data collection methodology can be particularly uniform distribution and collection of questionnaires. While in the UK research is being conducted by mail, in the CR questionnaires usually were distributed by the staff of individual facilities and the collection is performed through the boxes located in the facilities. An approach used in the UK is less manipulated by the health facilities, on the other hand, has much greater demands on project funding. The financial issue is gaining importance particularly in relation to various economy measures implemented in the context of the economic crisis.

From the perspective of the rating methodology it can be concluded that the methodology used in the CR (best value) is much stricter than the methodology used in the UK (values 0-100). Given the generally very high patient satisfaction, the use of this methodology can be considered legitimate, especially when comparing the quality of workplaces such as university hospitals. After all, the tightening of standards is used also in other areas of human activity where it is necessary to determine the order and the current measurement accuracy is not adequate (e.g. change from measurement accuracy in seconds to the measurement accuracy in tenths of seconds). At the same time, it is essential to sufficiently and clearly inform the general public about the use and the reasons of such strict criterion.

## Future outlook

As it was mentioned in the introduction, the paper concentrates on quality improvement procedures, respectively one component – patient satisfaction survey. Improving processes and outcomes includes in addition to patient satisfaction survey further elements:

- the use of individual care plans,
- staff satisfaction surveys,
- internal audit,
- monitoring and responding to complaints and unwanted events,
- research on views of corresponding doctors and institutions,
- interview on job satisfaction among staff,
- the user needs survey,
- management information system,
- multidisciplinary internal audit,
- functioning of committees – traumatic, on infectious diseases, medical and other,
- external audit.

In compliance with the above described research, our efforts in future will concentrate on observing and researching healthcare institutions quality management (human resources management, efficiency management etc.) with the aim to optimize their processes.

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