THE DEVELOPMENT OF QUALITY MANAGEMENT SYSTEMS AT THE PRIMARY LEVEL OF HEALTHCARE

Dražen BARKOVIĆ, Ph.D.
Professor Emeritus, Josip Juraj Strossmayer
University of Osijek, Faculty of Economics,
Republic of Croatia

barkovic@efos.hr

Kovačić NEDELJKO, PhD
Community Health Centre, Donji Miholjac

ravnatelj@dz-donjimiholjac.hr

Abstract

The increased level of knowledge in medicine, as in other sciences that are in some way associated with medical science, contributed to the change in quality standards in the health systems. Health systems, medical personnel and other employees in the health systems, especially during the last ten years have been faced with the demands of society and individuals (healthcare users), for an increased quality and elimination of the risk of adverse outcomes of individual procedures, diagnosis and treatment. Although quality in a medical intervention means applying the principles of best professional practice, more and more adverse outcomes of treatment have been recorded in the most technologically advanced countries.

Conceptual models in healthcare began to develop in the early 1960s, with the works of Donabedian in the field of assessing the quality of healthcare, which in this model included elements of structure, process and outcomes (Donabedian, 2005). Following this model, there have been many efforts to analyze the individual components of healthcare. The US Institute of Medicine developed and defined healthcare as a framework to be used as a template for planning the reform of primary healthcare and as a basis for the development of instruments that are used in assessing the quality of healthcare. One of the basic human rights is the right to quality healthcare. The goal of each health system is to im-

prove the quality of health, which also improves the quality of life. The quality of healthcare encompasses a set of measures taken during a health procedure, which results in a favourable outcome of treatment and also prevents unwanted events that may cause a negative treatment outcome. At the heart of the quality system is the patient, and therefore health institutions must provide conditions that guarantee their health and security.

The aim of this paper is to present health systems that apply management models for the overall quality of the mechanisms built in the structure of governance at all levels to enable prediction of the results of the introduction of new policies aimed at maintaining and improving the quality of the healthcare system.

Keywords: *Primary healthcare, quality systems, development, patient safety, management.*

JEL Classification: L1, I1, I11

1. INTRODUCTION

In quality management, we use terms such as: quality assurance as planned measurement and comparison of the treatment process certain criteria - quality indicators; quality control means the introduction of process control in relation to the prescribed norms, improvement or quality improvement is used as a term for the improvement of work processes in order to prevent errors, and total quality management (TQM) as a set of measures which combine systematically all previous (Rukavina, 2012).

The emphasis today is directed from "quality control and assessment" and focused on the definition of agreed and valid standards, systematic and reliable measurement of work, all activities aimed at change and improvement, and repeated evaluationand continuous improvement in a cycle or upward spiral.

2. THE PURPOSE AND MEANING OF QUALITY MANAGEMENT IN HEALTH CARE

The purpose and meaning of quality management in health care has evolved from policy-making in health care to focus on use of quality management as a tool for continuous development processes in the best way. Quality management can be observed through the following aspects as (Varkey, 2009):

1) Means of accountability in the use of clinical and physical resources in the treatment of patients;
2) Efforts to continuously develop and improve health care services for patients,health care teams, organizations and communities;
3) mechanism to improve clinical outcomes of patients who are defined through the health care system.

Since the focus on quality management has expanded, it strives to focus towards the clinical, as well as the organizational structure as the processes that lead to improvements in the final outcome. Modern leaders in the field of quality management are systemic thinkers, who work at the operational and strategic levels on issues relating to the quality (Wheatley, 1992). They place the patient at the center of events, using data and information to investigate and respond to these problems and rely on the participation of all employees in health care organizations. They continually seek changes that will contribute to the improvement in continuous cycles (Chassin, 1996).

3. IMPORTANCE OF QUALITY MANAGEMENT IN HEALTHCARE

The word "quality" has several different meanings, but in the sense used in this paper refers to the "excellence of certain things or activities" (Voury, 1982). With regard to health care, it refers to the level at which funds for health care included in the health care correspond to specific standards. Applying the standards in this way, we can expect achievement of desired results (Zalesnik, 1977).

The term "healthcare quality", its assessment and security, primarily originated in the world in the area of clinical medicine. There is a large literature on assessing and evaluating the quality of health care provided that this applies to individual patients (Sanazaro, 1980). Most of the studies were conducted in hospitals, mostly in industrialized countries (Donabedian, 1988). For the most part, these works were focused on the health care of patients with specific diagnoses, and the collected data wasprimarily related to the scoring diagnosis or therapy, or as results of such activities.

In most parts of the program, which refer to the primary health care (World Health Organization, 1978) in some countries, especially in developing countries, this type of information required in assessing quality, must be quite dif-

ferent. The objectives of assessing the quality and methods for using it should be realistic (Van Weel, 1994). Very often we are satisfied with the estimates made on the basis of simple observations or superficial records. Therefore, there are difficulties in designing interventions, quantification of phenomena, in most developing countries, where the information system is relatively deficient (Roemer, Montoya-Aguilar, 1988). The level of quality that is expected as well as the criteria to be applied is still insufficient in many areas. Because of this we have to be very careful and selective in making conclusions.

4. ASSESSMENT OF QUALITY IN HEALTH CARE

Donabedian has in his early works found that the quality of health care can be measured by the assessment of its structure, process and outcome (Shaw, Kalo, 2002), applying the concept of input-process-output in industrial production. He claimed that the corresponding structure increases the likelihood of appropriate processes and appropriate process increases the likelihood of appropriate outcomes (Donabedian, 1988).

Donabedian defined structure (the input for the process) as a property system in which health care occurs, and the resources needed for its implementation. It isgenerally thought about material resources (buildings, capital, equipment, drugs, etc.), intellectual resources (medical knowledge and skills, information systems) and human resources (health care workers). The process means the use of resources in terms of giving and receiving health services (Tatković, 2005). It can be divided into a process that applies to patients (intervention rate, the rate of referral to treatment) and processes related to organizational aspects (procurement of drugs, manage the list of waiting patients, payment of health workers and raising the funds and the like). The outcomes can be described as a consequence of health care and the health status of the patient population, and compares it with the rate of mortality, morbidity and quality of life.

However, Donabedian also found that prior to assessing the quality of health care in the first place has to decide (Donabedian, 1988):

- Do you adopt maximum and optimum quality traits;
- How we should define health and our responsibility for health;
- Did the assessment include the effect of work of the doctor, or are both patients and the health system as a whole covered, and

- Is the behavior in managing interpersonal processes between patients and providers also covered by health protection?

Shaw and Kalohave exploredDonabedian's approach and determined the dimensions of health care quality related to the above categories (Shaw, Kalo, 2002), and displayed them in the following table 1:

Table 1: Dimensions of quality health care

Dimensions of health care	
Structure (input system components)	How are resources allocated in terms of time, place and relevant needs of the population (access)
	Fairness in sharing costs and benefits (value)
Process	How to use the resources (management)
	The use of funds at the right time (efficiency)
	Avoiding losses (cost-effectiveness)
	Avoiding risk (safety)
	Appropriate evidence based practice (appropriateness)
	Health care is directed towards patients (continuity)
	Information targeted to patients and the public (transparent elections)
Outcomes	Population health (health improvement)
	Clinical outcomes (effectiveness)
	The expectations of the public and education (utility)

Source: Shaw, C, Kalo, I (2002). A background for nationalqualitypoliciesinhealthsystems, World Health Organization, Regional Office for Europe, Copenhagen.

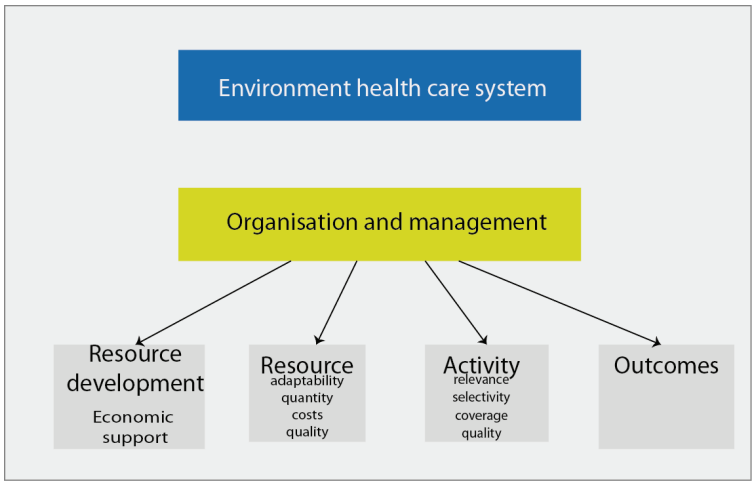
However, in the literature there are many disagreements on how they can assess relations processes and outcomes. Brook and his colleagues (Brook, McGlynn, Shekelle, 2000) agreed that very often the process data is sensitive in relation to the data outcome, since the adverse outcome does not have to result from a failure in providing health care (Brook., 2000). In addition, physicians usually define the quality of health care as a process (Brook, McGlynn and Cleary, 1996). Outcomes are generally considered weaker measure of the quality of health care, since they are partly considered as services in health care and can be strongly influenced by other factors, such as diet, environment, lifestyle and socio-economic circumstances (Williamson, 1977). Thus, the outcomes of apatient's treatment are reflected more as descriptive characteristics of the patients rather than as factors that are under the control of the provider of health

care. Accordingly, the time interval between treatment and its final outcome may be considerably longer and cannot be attributed to the importance of providing a particular service (Saultz, Lochner, 2005).

4.1. Quality as specific resources and activities of health care

As we mentioned earlier, limiting the concept of quality does not mean you should exclude other elements and dimensions of the health system (Roemer, Montoya-Aguilar, 1988). On the contrary, it only facilitates the concrete definition of each of them and explains the causal effect relationships within the system, as it is shown in Figure 1:

Figure 1: Quality of health care



Source: Roemer, MI, Montoya-Aguilar, C., (1988), QualityAssessmentandAssuranceinPrimary Health Care, World Health Organization, Geneva, p. 5)

In relation to the health resources, quality can simply be described as the appropriateness of conducting health services in a safe and reliable manner (Sibhthorpe, 2004). This can primarily be displayed by knowledge, skills and behavior of health care professionals, the level of cleanliness and safety of health care facilities, as well as the adequacy of medical equipment and instruments.

For the activities of health care, a concept usually associated with technical excellence, in connection with how to take action in accordance with the relevant technological regulations in order to achieve efficiency and safety. However, it should include other aspects related to quality, such as the human dimension of health care professionals, social and cultural acceptability and compliance

with ethical standards (Roemer, Montoya-Aguilar, 1988). Activities to be implemented in a manner to include attention to the significant physical and psychological health needs, combined with aspects of prevention and treatment, as well as an educational component. The balance of different levels of complexity of the applicability of health care to individuals, families and the community is also a very important aspect of quality, in terms of providing services to everyone in continuity, in a safe manner (Rogers, 1995).

4.2. Quality and primary health care

The mere fact that primary health care includes providing many health services that may be considered as "general", increases the significance and importance of evaluation and quality assurance themselves. Thus, it can be assumed that less need for advanced technology in primary health care means less need for quality standards. In contrast, very simple activities in primary health care mean that the subject of the possible errors and the level of protection measures must be established to ensure a quality level of health service delivery.

A particular problem in an attempt to define the quality of primary health care, especially at the level of meaning in the context of the overall health system, should not mean that it has less importance compared to other forms of health care (Eldar, 2007). Its provision may be in accordance with various forms relating to the work force, facilities, organization, financing, but its main merit depends on its relations with relevant standards and their ultimate effects.

Without a safe and effective primary health care, secondary and tertiary health care would be probably ineffective and inefficient. Bypassing these facts is one of the unavoidable consequences of lower quality. Health care using high technology, on the other hand, is not necessary for high quality. It may be unacceptable, or even unnecessary or unsafe. It can also affect the acceptable standards. In contrast, the quality of the management of health systems is not sufficient in itself; it must be present in all other areas within the economic system of a state .

Because of this, the quality within the framework of primary health care covers the various factors that contribute to its meaning, as well as the conditions for the implementation of any programs and plans that are oriented towards the achievement and realization of the program of the World Health Organization, "Health for All".

5. A SYSTEM OF QUALITY PRIMARY HEALTH CARE

The World Health Organization has in 1978, at its meeting in Almaty, defined the concept of primary health care strategy and set goals in the implementation of the program "Health for All by 2000". Following its declaration of Alma Ata was dominated by two schools in the definition of health care (Grembowski et al., 2005). One advocated selective access to health care (selective health care), and the other proponents of a comprehensive approach to health care (primary care).

5.1. Elements of the quality system of primary health care

Discussions have spread to earlier claims, which is the best way of organizing health care, "vertical" or "horizontal".

Basic factors of primary health care were:

a) The first access to health care;
b) Orientation towards patients, and
c) Comprehensiveness and coordination among the various forms of health care.

Before a more detailed consideration and assessment of quality assurance in primary health care, we should explain the requirements for the implementation of such health care. As stated in the report of the International Conference on Primary Health Care at Alma Ata (World Health Organization, 1978), the following elements must be considered, which are very essential for the implementation of health care:

1) Education and training associated with the prevailing health problems and the methods of prevention and control;
2) The promotion of food supply and proper nutrition;
3) An adequate supply of healthy and sanitary water for the use of the population;
4) Protection of maternity and children, including family planning;
5) Vaccination against major infectious diseases;
6) Prevention and control of endemic diseases at the local level;
7) An appropriate treatment of common diseases and injuries, and
8) Insurance of very important and essential drugs.

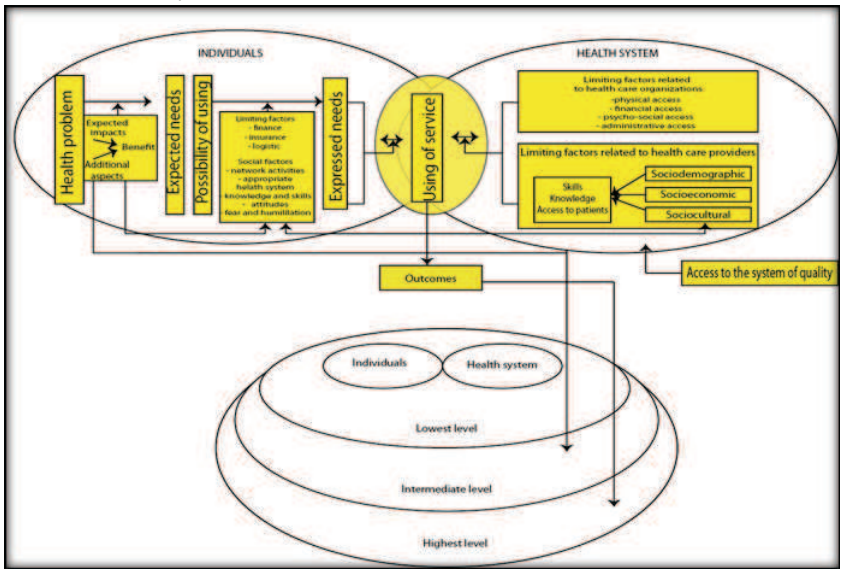
It is obvious that the provision of all these elements for the implementation of health care may create certain risks and uncertainties, and therefore the need for assessment and quality assurance is very important (Mandic et al., 2012). The options for the provision of health services at primary health care level create the need to implement strategies with highly complex infrastructure. This means that we must consider a range of factors that affect the nature of health problems, as well as the impact of the population and the characteristics of the infrastructure in the health sector.

For this group of limiting factors, we will briefly later in this work, taking into account the assessment and quality assurance in the delivery of health services.

5.2. The environment of the primary healthcare system

A structured environment includes the organization and the environment, which significantly affect the provision of health services (Eisenborg, 2002). This area is further divided into three major components: a health system that is defined as a policy, the participants (public institutions and associations), and factors at the level of the system that may affect the provision of services in primary health care (institutions and organizations). These structural factors should be aligned withindividuals and communities to ensure the provision of services.

Figure 2: The health system as a social determinant of health



(*Source:* Doherty, J., Gilson, L., (2006), ProposedareasofinvestigationfortheHealthSystem-sKnowledgeNetwork.Johannesburg, CentreforHealthPolicy, UniversityofWitwatersrand.)

The above image depicts and analyzes the trends on:

- micro level (public policies of health and equal distribution of resources for the functioning of the health system);
- Mezzo level (community level), implementing the policy of decentralization of certain functions;
- Micro level (the interaction between the population (the population) and the health care system) where the primary objective is to provide comprehensive health services and support the health care system.

It also shows us a comprehensive model that illustrates the different predispositions in the form of factors that simultaneously enable and determine how at the level of individuals, as well as at the level of healthcare providers (Haggerty et al., 2007). The model clearly shows that in addition to administrative, geographical, physical, financial and organizational determinants of access to health care, animportant impact on access to health care can have the skills, knowledge and access to the patient by the health services providers.

5.3. The infrastructure of primary health care

The infrastructure of the health care system of any country is much wider compared to that covered by the health ministry, for the mere fact that the major part refers to the health care providers. The basic infrastructures in healthcare, mainly, make:

1) Resources and its products - each health system consists of a healthy workforce, health facilities, goods and drugs, as well as knowledge and application of appropriate technologies;
2) The organization - an organization of resources through programs is essential for quality assurance in primary health care level;
3) Supporting the economy - is essential for the financing of the health system through the fiscal revenues of the national economy;
4) Management - appropriate management must support the entire infrastructure of the health system, and
5) Provision of health services - the last link in the chain of infrastructure components of health care is the main cartwheel research and analysis in terms of quality in primary care.

All of the above components are required for the implementation of primary health care within the health system of any country. Changing one component greatly influences the change in the other. It is necessary to study and develop all five components, at any level of the health system infrastructure - local, regional, national - since they are interrelated. The success results of the development of any component on the local level, to a large extent, may affect the regional and state level.

6. CONCLUSION

It may be noted that the quality of health care, largely depends on two important properties of the components and resources of its products, as well as providing health services. The other three components, organizations, support of the economy and management, constitute aid and determine the framework of health care quality. However, their importance in these areas is very difficult to predict (Roemer, Montoya-Aguilar, 1988). It is therefore necessary to have a legislative framework and direction of health policy within the national borders of individual countries.

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