RE-MODELLING THE HEALTHCARE SYSTEM USING TWO POLES – QUALITY OF HEALTHCARE SERVICES AND PATIENT SATISFACTION

Adriana Grigorescu[1*], Bradley Christopher De Freitas[2], Mirela Ivascu[3]
[1)] *National University of Political Studies and Public Administration, Bucharest, Romania*
[2)3)] *Valahia University from Târgoviște, Târgoviște, Romania*

Abstract
One of the most important issues of any public administration is public health, as the primordial obligation of the state to watch over the population health and to provide the medical services. Science and technology evolution create the opportunity to improve the health care services, but at the same time we should be concerned of other ways to improve the quality of the services. Systematically the public opinion shows non-conforming aspects that are driving to dissatisfaction. Talking about a public 'service' we have to be awarded about the satisfaction of the patients and to design reforms to improve the quality of healthcare services and the their affordably in accordance with the collected opinions. Accessibility of quality healthcare is an integral component in determining the foundation on which the healthcare system sits on, described by the WHO and OECD, that is why it was proposed EHCI to have unitary perspective, to can easily compare the systems and to propose adjustments. Many patient satisfaction surveys are conducted at the national level and are based on that specific country's consideration of healthcare services; this is why we must be very careful when dealing with international surveys. Comparing the results of such studies can prove difficult due to socio-economic factors, cultural differences and the patients overall perception of the healthcare system, which is mostly limited to a certain fixed set of expectations. In spite of these mechanical restrictions, the comparing of surveys based on the satisfaction of patients towards healthcare services is a key aspect in improving healthcare systems nationwide. The paper aimed to propose a holistic model and to highlight the main elements that are influencing the services quality and the patient perception.

Keywords: healthcare services quality, patient satisfaction, standards, holistic management

JEL Classification: M12, M31, M54, L32, I18

[*] Corresponding author, **Adriana Grigorescu** – adrianagrigorescu11@gmail.com

Introduction

Health care system is among the top priority of any government at least from two points of view: responsibility for public health and funding and the system management for better health care services. A constant preoccupation is to increase the healthcare services quality, because the patients are expecting to 'get in return' good services for the 'taxes' they have paid. Gittell and his co-authors, in their articles analyzed the link between performance in healthcare and the relationships (Gittell, 2009; Gittell and Center, 2011). The relationships, they are refering to, could be among the medical personell – doctors, nurses, managers, administrative staff, but they considered also the relationship between staff and patients. Talking is not all the time communicating and mutul trust is very important for a healthcare service.

An important issue related with the health care services quality is incidents report. There were researchers that studied the reason of not reporting as a feed-back that could contribute to the improvement. We are considering that the key message: "(1) Healthcare professionals appear reluctant to report adverse incidents to a senior member of staff; (2) Doctors are more unwilling than nurses or midwives to report adverse incidents to a senior staff member; (3) Reporting is most likely when the incident involves the deviation from a protocol and when the outcome for the patient is bad; (4) An unwillingness to report incidents must be addressed if organizational learning is to be achieved in the NHS"; sent by Lawton and Parker (2002) is synthesizing the core of the subject.

Very frequent the financial aspect is brought into attention even in terms of lack equipment, infrastructure etc. or personnel wages. "Most physicians and hospitals are paid the same regardless of the quality of the healthcare they provide, producing no financial incentives for quality and, in some cases, disincentives. Thus, there is increasing enthusiasm for the idea of linking payment to performance." (Petersen et al., 2006) The studies shows that the incentives programs have to be carefully monitored and there are no strong results that the quality improvement came from this.

Quality of healthcare system approaches

To parafraze Alexander Pope; „to err is human.." and taking into account that medicine isn't an exact science, there will be mistakes along the way, but what makes a great doctor as well as a great manager is learning from those mistakes and not only making sure you don't commit the same mistake twice, but challenging yourself to develop a better procedure which minimzes the risk of error. One opinion of improving the quality of healthcare system was to create a database with clinic data about the patients (Kraftson et al., 2000). „The disclosed system encompasses (i) designing and administering paper and pen and hand held computer survey instruments; (ii) administering and collecting completed surveys (iii) building and managing a database of information collected from the surveys; (iv) analyzing data collected from the surveys; (v) and providing clinical practices with summary information." All these informations are willing to serv as best practice and experiences that could improve the quality of the services by the doctors knoledge increase.

Other model is proposing a set of key elements to evaluate the Total Quality (TQ) (Al-Assaf et al., 1993): (1) executive level commitment; (2) transformation of culture; (3) planning quality; (4) organizing quality; (5) evaluating quality.

Dougherty and Conway (2008) are considering that „The 4 main activities of the 3T's model for transformation accross the multipl leavels of the healthcare system are

measurement and accountability, implementation and system redesign, scaling and spread and research. Measureing and accountability for quality and cost are the foundation for health care improvenet." A similar conclusion "good conceptual framework is particularly essential when there are societal requirements for fairness, transparency, accountability, performance attribution, and rewarding of excellence." (Arah et al., 2006) was founded in a project meant to create a freame work for OECD to evaluate the quality of healthcare services.

An interesting aproach of the quality of healthcare is given by Campbell et al. (2000) based on patients access and effectiveness. The patient access to the services can be determined taken into consideration the costs and easy to be related with the service quality. The effectiveness is considered by the authors using two components: one the effectiveness of clinical services that is related strictly to the quality of the service and the effectiveness of inter-personal care that is related with the interaction with the patient and his final perception.

Saha, Beachand Cooper (2008) studied cultural competence and patient centeredness and find out that the quality of healthcare services could be influenced, do not matter to much if it is considered the interpersonal or system levels. Of course lot of other evaluation systems could be considered the most important aspects we have to consider are the criteria, methods or instruments of evaluations and the impact of 'believes'.

Quality of healthcare and patient perception data analysis

We've used the results of Special Euro barometer 327 "Patient Safety and Quality of Healthcare" Report, 2010, Families USA Measuring Health Care Quality: An Introduction (March 2014) and Guiding principles for consumer-friendly health system transformation (February 2016) and other reports on the patient opinion about the quality of healthcare services.

It could be seen that Romania is places among the last five pozitions having the smalest scors (3) about the quality of the healthcare services, together with Portugal, Grece, Hungary and Bulgaria, the average of EU being placed at 33. Even the highest score of „better" is less then the highes score of „worse" that drive us to the conclusion the bad experiences are more poverful than good one.

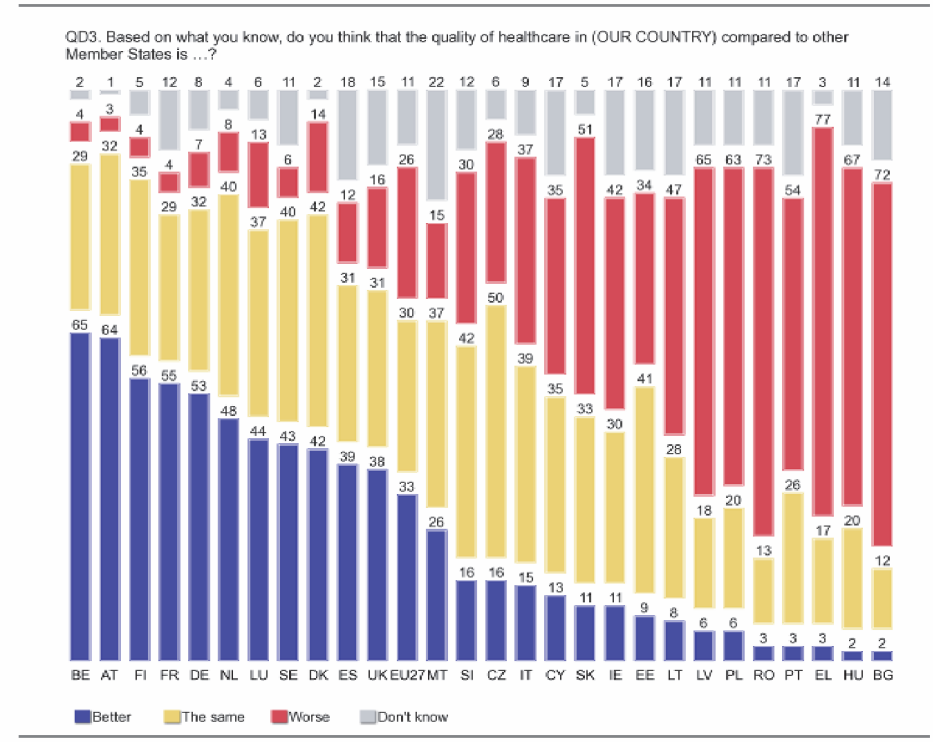

Fig. no. 1. Patients perception on the quality of healthcare services Eurobarometer 327

Source: takeover from Patient Safety and Quality of Healthcare" Report, 2010, p.62

At the same time we considered Euro Health Consumer Index (EHCI) is a comparison of European health care systems based on waiting times, results, and generosity calculated by Health Customer Powerhouse (EHCI 2015)

The five criteria proposed by Health Customer Powerhouse to create a comparative ranking of the quality of healthcare system are using clinic aspects, communication, costs, education and technology impact on the patients' perception.

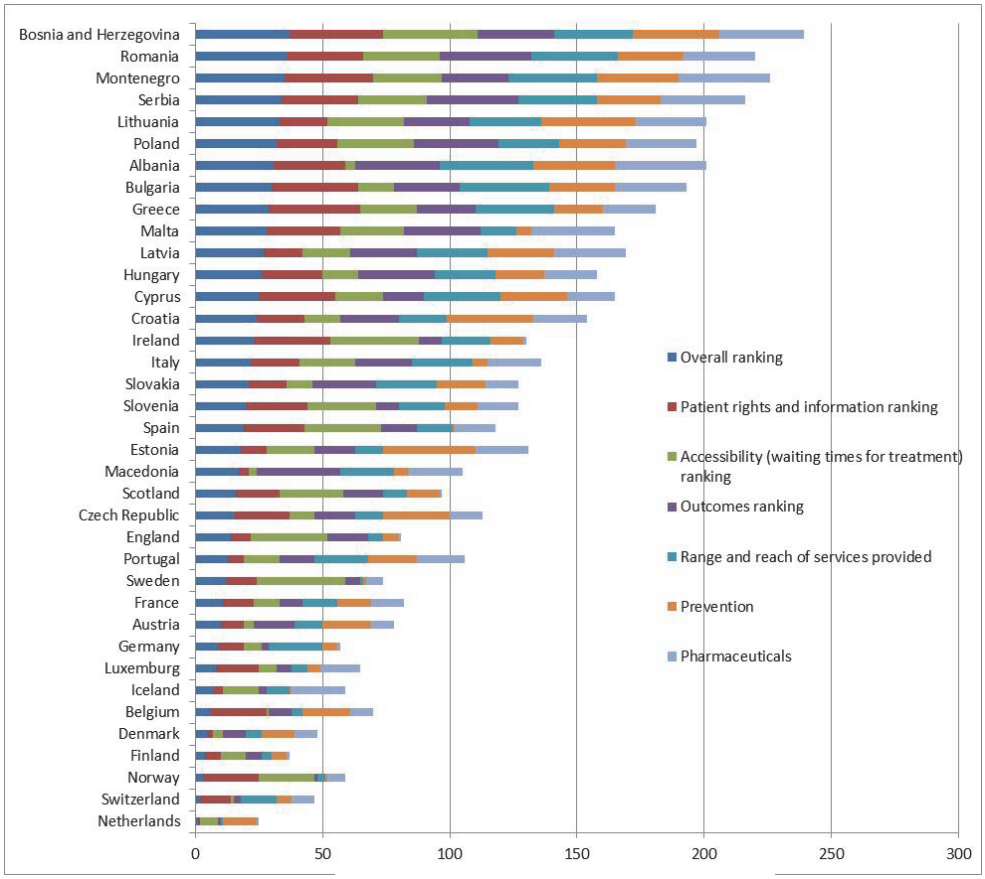

Fig. no. 2. Euro Health Consumer Index for 2014
Source: authors graph using the EHCI scores

The waiting period for recommended treatment

The estimated time to wait for treatment is an important indicator in measuring the accessibility of any healthcare establishment. The delay for receiving an operation, from the first consultation to the actual surgical procedure is affected by the following factors: The time it takes to receive a recommendation for a specialty consultation from your family doctor, whether it is on the same day, or there is a waiting list, the time it takes to get direct access to a qualified surgeon, the period between the pre-op consultation and the actual procedure. Usually the waiting period for surgical procedures which are not emergencies is less than three months, less than three weeks for chemo/radiotherapy in oncological cases and less than a week for diagnostic procedures (CT, MRI). In keeping with these factors, the highest rate of patient satisfaction was seen amongst German citizens. Although, in Germany getting an appointment with your GP is a relatively easy process, patients can also opt to skip this step and make an appointment directly with a specialist. The general waiting period for non-emergency surgeries is < 3 months, while chemotherapy can start

even earlier than 3 weeks, after receiving the results from an MRI or CT scan which can be performed in > 1 week.
In terms of funding and healthcare management, the Austrian healthcare system is extremely similar to that of the German model, which is also represented by the level of satisfaction conveyed by Austrian citizens. These indicators used to measure accessibility of healthcare services are somewhat disappointing, mainly in Eastern European countries, or countries which lack the sufficient funds. With the exception of Latvia and Lithuania, effective healthcare reforms have achieved positive results in relation to patient satisfaction and quality of healthcare services. Countries such as Latvia, Lithuania and Romania have not yet been able to regulate the flow of patients and as a consequence it is still possible to receive direct access to a specialist. In terms of minor surgery, patients in EU countries such as Denmark, Estonia and Sweden have a waiting period of < 3 months, while countries such as Great Britain, Latvia and Slovenia have registered waiting periods of > 3 months. When it comes to radio/chemotherapy, the waiting time in the majority of countries investigated was > 3 weeks, with the exception of Latvia and Slovenia where, in almost 90% of cases, therapy started earlier than three weeks. The situation becomes more problematic when dealing with medical imaging or diagnostic techniques, where all but 3 EU member states displayed waiting periods of > 3 weeks. The three countries who have waiting periods of < 3 weeks for CT/MRI, usually between 1-2 weeks are, Denmark, Estonia and Latvia.
To summarize, Austria and Germany lead the pack when it comes to the smallest delay between the first consultation and the surgical procedure, as well as the waiting period for GP and specialty consultations and access to diagnostic procedures. In the United Kingdom and Sweden, waiting periods are much longer and are viewed negatively by patients. Even with negative results, Slovenia managed to score positive results with patients in terms of receiving a consultation with your GP on the day, and waiting for less than three weeks for chemotherapy. The countries who scored the lowest in relation to waiting periods for treatment are: Lithuania and Romania.

Safeguarding the rights of patients

The rights patients have, which are enforced by the specific laws of that particular country can be used to measure the quality of healthcare services received. Comparing patient rights laws within other European countries, the EU member state of Denmark is by far the most efficient healthcare system when it comes to the rights of patients to receive quality healthcare. The patient rights law established in Denmark allow for members of an organizational committee to include patients in their decision making process, furthermore, patients are insured against medical malpractice, as well as having unlimited access to their individual medical records from their GP. Denmark, as well as most Western European countries, have records of all licensed medical practitioners, along with catalogs of healthcare clinics available to the public. Patients have the right to seek medical advice at any time of day due to their advancements in the e-health category. For example, patients have access to phone/online consultations 24/7, and benefit from e-health cards which are used by the GP in order to store the patient's individual data.

Another important aspect is that patients have the right to choose to be treated abroad, and these costs are covered by the national health insurance, whereas countries such as, Lithuania, who also scored a positive evaluation, do not have international coverage, unless

they are emergency situations, and even then patients come across endless bureaucratic red tape in order to receive approval. Eastern European or Balkan countries are lacking in their integration of electronic health, most EU countries with less funds do not use e-health cards, cannot benefit from constant medical support either online or by phone, and have no records of practicing physicians or medical care providers. By slowly integrating these concepts into a struggling healthcare system, accessibility and quality of healthcare services will drastically improve, thus ultimately resulting in an increase of patient satisfaction.

The re-modeling concept of healthcare system

The paper aimed to get some elements to support the idea of using this equilibrium relation as the discussion base. The ideal situation is when the patient perception/expectation fits with the quality of the healthcare services.
We are considering that the key factors in re-modeling the heath sector are the perception of the patient and the quality of the healthcare services. The interaction of these two nucleuses, in our representation, is taken the ellipsoidal shape. That means that there are 'attraction forces' and 'rejection forces' that are establishing an equilibrium.
The scheme presents the two nucleuses which are holding together the entire structure of healthcare system. Each are dependent of one another, because every individual can percieve quality in a different way, some individuals have higher standards than others, due to their culture or socio-economic background. Thus, leaving the notion of quality to be relative.

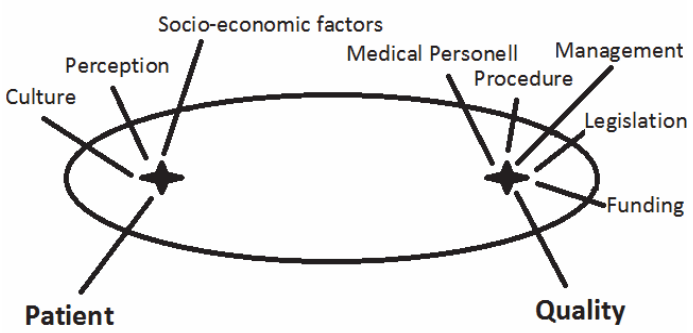

Fig. no. 3. Elipsoidal structure of healtcare system interactions

In figure 3 it could be seen that each nucleus is depending of certain factors. Pacient perception and expectations are generated by the age, gander, education, culture, social position, economic status, life stile, religion etc. On the other havd the quality of the healthcare services depends on infrastructure, medical personell, funding, legislation, management etc. The „domino effect" can be easily created when you lose one piece, eventually they all come tumbling down. The events leading to this destructurization, although sometimes devastating, are not necessarily unrepairable.
Quality of healthcare services can depend on a variety of different aspects, each aspect as important as the next; for example: A hospital/clinic can posses an entire staff of capable and knowledgable physicians, but might lack in the funding of certain procedures, or they might have the necessary funds but require more experianced medical and managerial staff,

or they may have the appropriate funding, medical and managerial staff but certain laws and regulations that could impede some actions.
The most important aspect is that the equilibrum has to be mentained and if any disruption comes out all the efforts sould be made to recreate it back.
If we are proposing a mathematic form of the model it could be:

$$\sum_{i=1}^{n} PPE = \sum_{j=1}^{m} QHS \quad (1)$$

Were:
PPE – is patients perception and expectations, testing n key elements
QHS – quality of healthcare services, using m criteria of evaluation
All the presented above factors of influence and evaluation criteria will be tested to set up the best combinations that could offer an integrated picture.

Conclusions

Due to substantial variances in the way EU patients identify the quality of medical services offered by their country's national healthcare system when compared to other EU Member States, it is apparent that the need for healthcare reforms is a prevalent issue, especially in Eastern European countries who lack resources and experienced healthcare managers. Some EU countries have already begun implementing reforms in their healthcare system based on patient satisfaction and needs and as a result are receiving more positive reviews, for example, Estonia. In countries such as Latvia, Lithuania and Romania it is clear substantial changes need to be applied, although most healthcare organizations are aware of this problem, there needs to be a reflection on the ways of reducing these disparities between EU member states in order to bridge the gap of quality between Eastern and Western EU countries and be able to hold a constant average amongst these countries in the perception of quality and accessibility of healthcare services.

References

Al-Assaf, A.F. and Schmele, J. (Eds.), 1993. *The textbook of total quality in healthcare*. CRC Press.

Arah, O.A., Westert, G.P., Hurst, J. and Klazinga, N.S., 2006. A conceptual framework for the OECD health care quality indicators project. *International Journal for Quality in Health Care*, 18(suppl 1), pp. 5-13.

Bosko, T., Dubow, M. And Koenig, T., 2016. Understanding Value-Based Incentive Models and Using Performance as a Strategic Advantage. *Journal of Healthcare management*, 61(1).

Björnberg, A., 2015. Euro Health Consumer Index 2015 Report. *Health Consumer Powerhouse*, 15(1).

Campbell, S.M., Roland, M.O. and Buetow, S.A., 2000. Defining quality of care. *Social science & medicine*, 51(11), pp. 1611-1625.

Dougherty, D. and Conway, P.H., 2008. The "3T's" road map to transform US health care: the "how" of high-quality care. *Jama*, 299(19), pp. 2319-2321.

Gittell, J.H., 2009. *High performance healthcare: Using the power of relationships to achieve quality, efficiency and resilience*. McGraw Hill Professional.

Gittell, J.H. and Center, M.L., 2011. High performance healthcare: Using the power of relationships to.

Issel, L.M., 2014. A culture of health and healthiest nation initiatives: The relevance of health care management research. *Health Care Management Review*, 39(3).

Kraftson, R.H., Kraftson, M.O., Mudditt, M., Schrogie, J.J. and Simon, W.H., 2000. *U.S. Patent No. 6,151,581*. Washington, DC: U.S. Patent and Trademark Office.

Lawton, R. and Parker, D., 2002. Barriers to incident reporting in a healthcare system. *Quality and safety in health care*, 11(1), pp. 15-18.

Lightbourne, A., 2016. Opportunities to Build a Better Care Continuum: From Global to Local. *HealthManagementorg*, 16(1).

Petersen, L.A., Woodard, L.D., Urech, T., Daw, C. and Sookanan, S., 2006. Does pay-for-performance improve the quality of health care?. *Annals of internal medicine*, 145(4), pp. 265-272.

Saha, S., Beach, M.C. and Cooper, L.A., 2008. Patient centeredness, cultural competence and healthcare quality. *Journal of the National Medical Association*, 100(11), p. 1275.

Sixma, H.J., Kerssens, J.J., Van Campen, C. and Peters, L., 1998. Quality of Care from the Patients' Perspective: From Theoretical Concept to a New Measuring Instrument. Health Expectations.

*** Families USA (March 2014) Measuring Health Care Quality: An Introduction, *Publication ID: 024HSI050114*, www.familiesusa.org/publications

*** Families USA (February 2016) Guiding principles for consumer-friendly health system transformation, *Publication ID: 001HST010816*, www.familiesusa.org/publications

*** Health Customer Powerhouse (2015) *Euro health consumer index*. EHCI (2015), http://www.healthpowerhouse.com/files/EHCI_2015/EHCI_2015_report.pdf