



HRVATSKO DRUŠTVO MENADŽERA KVALITETE

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Vol. 20/No. 1

ZBORNIK RADOVA
Proceedings

20. međunarodni simpozij o kvaliteti

KVALITETA -
JUČER, DANAS, SUTRA

20th International Symposium on Quality

QUALITY -
YESTERDAY, TODAY, TOMORROW

20. - 22. ožujka 2019.
March 20th - 22nd, 2019
Pula, Hrvatska/Croatia

HRVATSKO DRUŠTVO MENADŽERA KVALITETE
CROATIAN QUALITY MANAGERS SOCIETY

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ZBORNİK RADOVA

PROCEEDINGS

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Godina 20, Broj 1
Vol. 20, No. 1

Pula, Hrvatska/Croatia
20. – 22. ožujka 2019.
March 20th – 22nd, 2019

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Izdavač/Publisher

Hrvatsko društvo menadžera kvalitete, Zagreb, Hrvatska
Croatian Quality Managers Society, Zagreb, Croatia
Radoslava Cimermana 36a, 10 000 Zagreb
E-mail: info@hdmk.hr
<http://www.hdmk.hr>

Za izdavača/For Publisher

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Klasifikacija UDK & JEL/*Classification U.D.C. & JEL*
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Prijevod sažetaka, zaključaka i predgovora/
Summaries, Conclusions and Introductory translation
Ljubica Kolbas, prof.

Korice dizajn/Covering design

Apostol d.o.o., Zagreb

Tisak/Printing

PRINTERA GRUPA
Sveta Nedelja

Naklada/Issue

250 primjeraka/copies

ISSN 2670-8825 (Tisak/*Print*)
ISSN 2670-8833 (CD-ROM)

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Proceedings book will be indexed in secondary publication:

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CiteFactor

EOI: 10.11.222/hdmk

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PREDGOVOR

Poštovane kolegice i kolege članovi HDMK, znanstvenici i stručnjaci u području sustava upravljanja, zadovoljstvo mi je pozvati vas na aktivno sudjelovanje u radu jubilarnog 20. međunarodnog simpozija o kvaliteti, pod radnim nazivom *KVALITETA – JUČER, DANAS, SUTRA*.

U 22 godine postojanja i rada, HDMK je uspješno organiziralo 20 međunarodnih simpozija o kvaliteti. Prigoda je to da se, gledajući u budućnost, ukratko ipak osvrnemo na proteklo razdoblje i sagledamo razvoj kvalitete kao koncepta, kao filozofije i kao znanosti. U tom razdoblju dogodile su se brojne promjene u kontekstu kvalitete: 1) kvaliteta je ušla u obrazovni sustav, osobito u visokom obrazovanju; 2) brojne organizacije implementirale su sustav upravljanja kvalitetom sukladno sa zahtjevima međunarodnih ISO normi; 3) značajne promjene u smislu poboljšanja dogodile su se u brojnim sektorima (zdravstvo, maloprodaja, automobilska industrija, promet i transport, proizvodnja, usluge i dr.). Najznačajnijim postignućima smatramo veliki broj obrazovanih stručnjaka za kvalitetu u svim strukama i činjenicu da kupac (korisnik) danas ima daleko veću mogućnost izbora nego je imao ikad.

Ova ostvarenja nisu dovoljna. Jedna od temeljnih karakteristika današnjega svijeta je stalnost promjena. Kvaliteta, shvaćena u najširem smislu, dinamička je kategorija i zahtijeva stalno poboljšanje. Stoga se pred nas koji se profesionalno i znanstveno bavimo kvalitetom, postavljaju najmanje dva složena zadatka: 1) razumjeti povijest kvalitete, priznati pogreške i zablude i 2) razvojem kvalitete kao resursa, strategije i razvojnog koncepta ostvariti daljnja poboljšanja u svim sektorima i područjima rada i života kako bi svijet svima postao bolje mjesto za život, na dugi rok. A prostora za poboljšanja ima puno. Najveći globalni problemi svijeta još uvijek traže kvalitetna rješenja: 1) nejednaka raspodjela svjetskog bogatstva; 2) razina konflikta; 3) klimatske promjene; 4) velika ulaganja u naoružavanje i represivni aparat; 5) masovne migracije; 6) neizlječive bolesti; 7) drastične razlike u kvaliteti života.

Pripremu za 20. međunarodni simpozij o kvaliteti započinjemo u razdoblju ekonomskog rasta, kako u Hrvatskoj tako i u zemljama EU. To nije razlog da se prestane s osmišljavanjem i implementacijom nekog novog razvojnog koncepta koji može pomoći rješavanju najvećih globalnih i lokalnih problema. Naprotiv, razdoblje ekonomskog rasta i prosperiteta pravo je vrijeme za razmišljanje o budućnosti.

Hrvatsko gospodarstvo već dulje vrijeme bilježi rast BDP-a, s tendencijom usporavanja. Najveći generator rasta BDP-a u drugom kvartalu 2018. godine je potrošnja građana dok ostale sastavnice BDP-a (industrijska proizvodnja, izvoz, investicije) bilježe skromniji rast. Smanjuje se i stopa nezaposlenosti, ali se istovremeno pojavljuje nedostatak radne snage u brojnim sektorima (proizvodnja, poljoprivreda, turizam, brodogradnja, zdravstvo i dr.).

Turizam u Hrvatskoj posljednjih godina, tako i u 2018. godini, bilježi odlične rezultate, kako po broju dolazaka i noćenja, tako i po prihodu. Započele su neke od tzv. strukturnih reformi poput porezne reforme i reforme školstva, što nije dovoljno za povećanje konkurentnosti gospodarstva. Problemi nedostatka radne snage i ne konkurentnosti strukturne su prirode i nastajali su desetljećima. Razvoj infrastrukture u punom je zamahu (zračne luke, ceste, mostovi, željeznica, morske luke i dr.). Odlazak mladih i obrazovanih ljudi u ekonomski razvijenije zemlje kao i problem apsolutnog smanjenja broja stanovnika problem su Hrvatske, ali i brojnih drugih zemalja EU. Rješavanje ovih problema podrazumijeva politički konsenzus i novi razvojni koncept.

EU također bilježi ekonomski rast. Cijena nafte na svjetskom tržištu raste. Proces proširenja EU novim članicama u svojevrsnoj je krizi. Preispituje se koncept NATO-a kao i koncept na kojem se temelji EU.

Na globalnoj razini odvija se proces nove geopolitičke podjele svijeta. Pozitivne promjene događaju se u slučaju Korejskog poluotoka. Ekstremne vremenske nepogode prisutne su u mnogim dijelovima svijeta, što značajno utječe na gospodarstvo i kvalitetu života ljudi.

Svaka zemlja, kao i nadnacionalne ekonomske i političke integracije trebaju tražiti nova rješenja i mogućnosti rasta i razvoja. Mišljenja smo da „kvaliteta“ shvaćena u najširem smislu, može doprinijeti nastavku pozitivnih kretanja, a također doprinijeti pronalasku rješenja za najveće probleme na globalnoj razini.

Kao i do sada, HDMK organizirajući 20. međunarodni simpozij o kvaliteti, čini napor u okupljanju kritične mase znanja i kompetencije na području sustava upravljanja kako bi dalo svoj doprinos razvoju svjesnosti o potrebi značajnije primjene načela upravljanja kvalitetom u modeliranju razvojnog koncepta kompatibilnog sa svim ekonomskim sustavima Tako osmišljen razvoj pospješuje konkurentsku sposobnost gospodarstva kao pretpostavku osiguravanja kvalitetnijeg života svojih građana, što je suština politike svih demokratskih sustava.

S tom svrhom pristupili smo organizaciji 20. međunarodnog simpozija o kvaliteti i pozivamo vas na razmjenu iskustva i ideja vezano za sustav upravljanja kvalitetom u cilju iznalaženja prihvatljivih rješenja radi bolje budućnosti.

20. simpozij organiziramo u Istarskoj županiji, u gradu Puli starom preko 3000 godina. Povijest ovog grada, na neki je način i povijest kvalitete na ovim prostorima. Šetnja ulicama ovoga čudesnog grada u to će vas uvjeriti.

Predsjednik HDMK
Doc. dr. sc. Miroslav Drljača
IAQ – Associate Academician

INTRODUCTORY WORD

Dear colleagues, members of the Croatian Quality Managers Society, scientists and professionals in the scope of management systems, dear friends, it is my pleasure to invite you to actively participate in the 20th International Symposium on Quality, under the working title QUALITY – YESTERDAY, TODAY, TOMORROW.

In twenty years of its existence and work, the CQMS has successfully organized 20 international symposiums on quality. On this occasion, while looking into the future, it is appropriate to briefly review the past period and look at the development of quality as a concept, as a philosophy and as a science. Numerous changes in the context of quality have happened over the period: 1) quality has entered the education system, particularly higher education; 2) numerous organizations have implemented the quality management system in accordance with requirements of international ISO standards; 3) various sectors have experienced significant changes with the effect of improvements (health, retail, automobile industry, traffic and transport, production, services and others). In our opinion the most important achievements are the large number of educated quality experts in all professions and the fact that possibilities of choice for customers (users) are today much greater than ever.

However, these achievements are not enough. One of the basic characteristics of the today's world is permanence of change. Quality, in the broadest sense of the word, is a dynamic category, and it requires continual improvements. Therefore, all of us professionally and scientifically engaged in quality, face at least two complex tasks: 1) to understand the past of quality, admit mistakes and misconceptions, and 2) by developing quality as a resource, a strategy and a development concept, enable further improvements in all sectors and areas of work and life, and in the long term make the world a better place to live in for everyone. And there is a lot of room for improvements. The biggest global problems are still waiting for good quality solutions: 1) unequal distribution of world wealth; 2) level of conflicts; 3) climatic changes; 4) big investments in arming and repressive apparatus; 5) mass migrations; 6) incurable deceases; 7) drastic differences in quality of life.

We are starting preparations for the 20th International Symposium on Quality in the period of economic growth, both in Croatia and the EU states. This is, however, no reason to stop designing and implementing a new concept of development that could help solve the biggest global and local problems. On the contrary, the period of economic growth and prosperity is the right time for thinking about the future.

The economy of Croatian has been recording a GDP growth for a longer period, with a tendency to slow down. The greatest generator of GDP growth in the second quarter of 2018 is personal consumption, while other components of GDP (industrial production, export, investments) show a more modest growth rate. The unemployment rate has also been decreasing, but at the same time a labour short-

age has occurred in numerous sectors (production, agriculture, tourism, shipbuilding, health, etc.). Over the past years, and also in 2018, the tourism in Croatia shows excellent results, both in number of visits and overnight stays and tourism revenues. Some of the so called structural reforms have been started, such as tax reform and education system reform, but it is not enough to increase economy competitiveness. Problems of labour shortage and lack of competitiveness are of structural nature and have been developing for decades. Development of infrastructure is in full swing (airports, roads, bridges, railway, sea ports, etc.). Leaving of young and educated people to economically more developed countries and the absolute decline of the population, are problems of Croatia, but also of many EU states. Solving these problems requires political consensus and a new concept of development.

The EU also records a GDP growth. The price of oil in the world market rises. The EU enlargement process is in a kind of crisis. The NATO concept, and the concept on which the EU is based, are being reconsidered.

At the global level, a process of new geopolitical divisions of the world is underway. Positive changes have happened in the case of the Korean Peninsula. Extreme weather conditions occur in many parts of the world and this has a significant impact on economies and the quality of life of people.

Every country, as well as supranational economic and political integrations should seek new solutions and possibilities of growth and development. We believe that "quality", understood in its broadest sense, can contribute to continuation of positive movements, and also contribute to finding solutions of the biggest problems on the global level.

As always, by organizing the 20th International Symposium on Quality, the CQMS continues to make effort to gather a critical mass of knowledge and competence in the domain of management systems, in order to contribute to developing awareness of the need for a wider application of quality management principles in modelling a concept of development compatible with all economic systems. The so envisaged development enhances competitive ability of economy as a prerequisite for ensuring better quality of life for citizens, and this is the essence of politics of all democratic systems.

With this purpose in mind we started organizing the 20th International Symposium on Quality, and we now invite you to the exchange of ideas relating to quality management, with the aim to find acceptable solutions for the sake of a better future.

The 20th symposium will take place in Istria County, in 3000 year old city of Pula. In a certain way, the history of this city is also the history of quality in this region. A walk in the streets of this amazing city will convince you of this.

Assist. Prof. Miroslav Drljača, Ph.D.
President of the CQMS
IAQ – Associate Academician

CONTINUOUS PROCESS IMPROVEMENT AS AN IMPERATIVE FOR IMPROVEMENT OF QUALITY MANAGEMENT SYSTEM IN HEALTH CARE

**STALNO POBOLJŠANJE PROCESA KAO IMPERATIV
UNAPRIJEĐENJA SUSTAVA UPRAVLJANJA
KVALITETOM U ZDRASTVU**

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UDK/UDC: 005.62+005.83

JEL klasifikacija/JEL classification: L15; I15

10.11222/020.01.024.19

Pregledni članak/Review

Jezik/Language: English/Engleski

ABSTRACT

The quality of life influenced by the more frequent and dynamic changes in society is decreasing. With the emergence of new customer demand for health services, health-care organizations need to adapt and optimize their processes to comply with newly defined requirements. But customer demands are not the only ones that correlate with the improvement of the process. Positive laws and norms defining quality management systems for health organizations impose imperatives for continuous improvement of the process as well as measurement of customer satisfaction of their services. Process improvements do not only affect buyers' satisfaction, but also reduce the cost of running the process as well as the flow of resources in the process. Improving the process of each health organization within the health system of the state improves the overall health system, which is of particular importance in the conditions

of increased health care and the decline in the efficiency of services. Only through ongoing improvements can health organizations respond to rising demands from the environment.

Key words: continuous process improvement, quality management system, health institutions, healthcare system.

1. INTRODUCTION

Turbulent and dynamic changes in today's society often reduce the quality of life. Along with the decline in quality of life, health problems may arise which require new ways of approaching their treatment. Likewise, health organizations need to gain access to optimization and improvement of their processes in order to meet the newly created health service requirements.

The continuous process improvement as well as the emphasis on customer satisfaction are two of the requirements set by ISO 9001 for organizations and quality management systems. To meet the requirements for continuous improvements, the organization has a variety of tools, methods and methodologies available, and the choice of implementation depends on organizational management. However, the improvement of the health care process must be based on the customer's existing satisfaction, ie on their needs that need to be identified and taken into account during the improvement planning process. Customer requirements can be described by qualitative or quantitative indicators that can be collected by researching through interviews, surveys, focus groups, etc. The obtained results become guidelines for improving the process.¹

The health system is like a chain link to each other. Weakness in one of the links can affect the overall chain weakness, meaning improvements need to concentrate on the weakest parts of the system to improve them² and to develop sufficient flexibility to meet changing customer demand for health services.

However, the ISO 9001 standard is not the only one that emphasizes the importance of approaches to continuous improvement of the process. In the context of the Republic of Croatia, the Rulebook on Quality Standards of Health Care and the manner of their application in Article 3 clearly and unequivocally define that each health institution as well as the individuals employed in it must carry out an assessment of the process and its mode of operation and in accordance with the results obtained evaluations to access the

¹ Abbie Griffin, and John R. Hauser, "The voice of the customer" *Marketing science* 12, no. 1, 1993, p. 1-27.

² Syed Tabish and Syed Nabil, „A Systems Approach to Continuous Improvement in Health Care“ *International Journal of Science and Research (IJSR)*, 4, 2015 p. 2674-2695.

improvement.³ In other words, continuous validation and improvement is an imperative for all health institutions within the health system of the Republic of Croatia.

2. TRANSFORMATION OF CLASSICAL IN PROCESS ORIENTED ORGANIZATIONAL STRUCTURES

The quality management system, as seen by ISO 9001, is based on a process approach, which implies the transformation of classical organizational structures into process-oriented. Transformation can be the result of evolutionary changes but also of revolutionary events that are based on changes in the organizational environment. The transformation of the organization requires the identification of existing processes as well as the definition of procedures necessary for their development. Identified processes must be documented and displayed in the process folder. Furthermore, the organization produces a quality manual as well as conducts employee training to conduct an internal auditing process.⁴

The transformation of traditional organizational structures also implies decentralization of the management system, defining process owners and linking all workflows to an unbroken chain. In addition, transformation affects organizational culture, focusing on customers, teamwork, communication and the development of culture of continuous improvement. With transformation organization accepts the responsibility for conducting measurements aimed at preventing the occurrence of nonconformity, and the organizational structure becomes shallower making it more flexible, with the possibility of faster adaptation to new conditions and customer requirements.⁵

By implementing a process approach, the organization focuses on customer requirements that become the central figure whose requirements directly correlate the look of organizational products and services. The ISO 9001 standard emphasizes the importance of this approach.⁶ However, the process approach implementation also means defining the points in the process in which the process performance will be measured and that are the basis for access to improvement.

³ Pravilnikom o standardima kvalitete zdravstvene zaštite i načinu njihove primjene.

⁴ Jaap, Van den Heuvel, Lida Koning, Ad JJC Bogers, Marc Berg, and Monique EM van Dijen, "An ISO 9001 quality management system in a hospital: bureaucracy or just benefits?," *International Journal of Health Care Quality Assurance* 18, no. 5, 2005 p. 361-369.

⁵ Tomislav Hernaus, "Transformacija klasične organizacije u organizaciju orijentiranu na poslovne procese," 2008.

⁶ Hrvatski zavod za norme. Hrvatska norma HRN EN ISO 9001:2015 sustavi upravljanja kvalitetom – zahtjevi. Hrvatski zavod za norme, 2015.

The transformation of traditional systems in a process-oriented turns patients into customers of health services, medical personnel into the supplier or vendor of health services while at the operational or tactical level the owners of the processes that govern the process are defined.⁷

3. APPROACHES TO PROCESS IMPROVEMENT

The ISO 9001 standard is one of the ways that the organization is at its disposal as a guide to improving the quality management system, whose implementation implies continuous improvement of the process⁸ in order to maintain the level of competitiveness and satisfaction of the interested parties. However, the ISO 9001 standard requirement is not the only requirement that healthcare organizations undertake to continuous improve. The Health System of the Republic of Croatia with the Rulebook on Quality Standards of Health Care and the manner of their application also as an imperative emphasizes measurement of customer satisfaction of health services, process performance as well as access to improved process based on measured performance.⁹ Furthermore, the difference between measured performance and desired performance of the process is an integral part of the constraints theory that the mentioned difference takes as the basis for improvement through the analysis of the reasons why the deviation was defined, primarily corrective, and then preventative action directed towards the problem.¹⁰

But the implementation of the ISO standard, which in itself emphasizes the PDCA (Plan-Do-Check-Act) methodology of improvement as a dominant approach to improvement, is not the only way organizations are available to improve the process. Lean 6 sigma approach along with the DMAIC (Define-Measure-Analyze-Improve-Control) methodology of improvement through suggestions of improvements coming from employees who are in daily contact with processes for which they propose improvements through eliminating process waste, increases the efficiency and effectiveness of the process

⁷ Gunjan Patel, "Total quality management in healthcare." *The Midas Journal*, 2009, p. 1-4.

⁸ Ibid.

⁹ <http://www.kb-merkur.hr/userfiles/pdfs/Djelatnost/Jedinica%20za%20kvalitetu/propisi/001-Pravilnik%20o%20standardima%20kvalitete%20zdravstvene%20za%C5%A1tite%20i%20na%C4%8Dinu%20njihove%20primjene.html>

¹⁰ Syed A. Tabish, and Syed Nabil, "Securing the Future: A Systems Approach to Continuous Improvement in Health Care by Applying the Theory of Constraints," *International Journal of Science and Research (IJSR)* 438, no. 1, 2015, p. 2674-2695.

in parallel with reducing total costs.¹¹ Within Lean's 6 sigma approach to improving organization, there are a number of tools and methods that apply the daily-based improvements based on the requirements that healthcare customers emphasize as important to them.

Total Quality Management (TQM), as one of the ways to improve process performance and improve quality systems, emphasizes the creation of a system where there are no inconsistencies or health services that could endanger the health of the customer. Employees involved in providing health services must continually improve their knowledge and skills through education, which enables them, by increasing the quality of the provided service, to identify the place in the process where improvements can be made. Additionally, TQM fully classifies the customer as the central factor whose satisfaction is an organizational imperative.¹²

4. IMPERATIVE OF PROCESS IMPROVEMENT OF PROVIDING HEALTH SERVICES

In the context of the Republic of Croatia, one of the problems facing the health system is the inefficiency and ineffectiveness which affects the generation of high costs of providing health services. However, with internal factors within the hospital system there are also external factors that can not be influenced by the health organization but are already defined by the Croatian health system as a whole.¹³ Systemic health system reform can provide a solution to the problem of rising costs, but taking into account the theory of the system, it leads to the conclusion that improvement of individual organizations affects the overall system improvement. Good practice has shown that, through improvements in the healthcare delivery process, overall organizational costs can be reduced, and added value to customers increases.¹⁴

In addition, the need for improvement is not limited to cost reduction but also elimination of process waste such as waiting, unnecessary transport, unnecessary movements, unnecessary supplies and unnecessary processes

¹¹ Jaap Van Den Heuvel, Ronald J.M.M. Does and John P. S. Verver, "Six Sigma in healthcare: lessons learned from a hospital." *International Journal of Six Sigma and Competitive Advantage* 1, no. 4, 2005, p. 380-388.

¹² Gunjan Patel, "Total quality management in healthcare," *The Midas Journal*, 2009, p. 1-4.

¹³ <https://www.hlk.hr/ek-rashodi-za-zdravstvo-u-hrvatskoj-stagniraju-i-slicni-su-onima-iz-2011.aspx>

¹⁴ Alkin Yurtkuran, Duygu Özdemir, Merih D. Yurtkuran, and Erdal Emel, "Lean transformation to reduce costs in healthcare: A public hospital case in Turkey," *Journal of Hospital Administration*, 6, no. 4, 2017, p.10.

etc..¹⁵ However, the need for improvement also stems from the new demands of healthcare customers as well as through the demand to increase the quality of providing existing health services. New requirements can also be determined by the overall quality of life of customers that may affect the emergence of new health problems. Quality of life is described by measuring physical and mental factors, and both factors can be correlated with the quality of the provided health services.¹⁶

Processes in health organizations in accordance with the Health Care and Social Welfare Act must be directed to meeting the customer's health service requirements¹⁷ for which a set of indicators defined through clinical quality indicators is provided.¹⁸ Clinical quality indicators may indicate the existence of differences between the planned performance of the health service delivery process and the performance achieved as well as the customer service satisfaction. Any deviation can indicate the existence of anomalies in the process, which can result in the occurrence of nonconformity or customer dissatisfaction.

Inconsistencies in the provision of health care services result in a risk of distorting the quality of life of the customer and possible mortality, which is a patient safety indicator defined in the Ordinance on Quality Standards of Health Care and the Method of their Application.¹⁹

Improvement of the process, besides leading to a reduction in the total running costs of the process cycles, also affects the performance of the healthcare organization as a whole. Namely, by eliminating process waste, mapping the flow of values, and fully focusing on the customer's healthcare satisfaction, the health care organization can directly affect the clinical quality indicators that include waiting for health care services, operating room utilization, length of stay in a healthcare organization, and other.²⁰

¹⁵ Ajit Kumar, Girish R. Kumar, N. S. Narahari, and K. M. Mithilesh. "Case study on identification and elimination of waste through lean implementation in an automotive part manufacturing industry," *International Journal of Lean Enterprise Research* 1, no. 3, 2015, 253-265.

¹⁶ http://resources.hwb.wales.gov.uk/VTC/2011-12/vocational/health-and-social-care/tinopolis/deploy_unit_1/data/teachers/assets/U1_M1_Factors%20affecting%20quality%20of%20life.doc

¹⁷ <https://www.zakon.hr/z/508/Zakon-o-kvaliteti-zdravstvene-za%C5%A1tite-i-socijalne-skrbi>

¹⁸ <http://www.aaz.hr/hr/kvaliteta/pokazatelj>

¹⁹ <http://www.kb-merkur.hr/userfiles/pdfs/Djelatnost/Jedinica%20za%20kvalitetu/propisi/001-Pravilnik%20o%20standardima%20kvalitete%20zdravstvene%20za%C5%A1tite%20i%20na%C4%8Dinu%20njihove%20primjene.html>

²⁰ Ibid.

5. QUALITY MANAGEMENT SYSTEM IN HEALTH CARE

By implementing a Quality Management System in a business, organizations can gain the benefits of greater customer satisfaction, the organization's ability to abide by positive legal regulations as well as standards defining the quality of the provided service or the product produced. But, most importantly, with the implementation of quality management system, the organization also takes steps to manage risks and opportunities²¹ which is of particular importance for the provision of health care services and can be crucial for the satisfaction and quality of life of the customer.

In accordance to the Law on Quality of Health Care and Social Welfare, the minister in charge issues plans and measures to ensure equal quality of provided healthcare services for all customers in all healthcare institutions in the context of the Republic of Croatia for which the ordinance is relevant.²² Every health organization in the accreditation process passes an audit in which the competent auditor complies with the Rules on Accreditation Standards for Hospital and Health Care Institutions through insights into procedures and documentation to check whether the health organization meets the defined regulations and standards²³ which is very similar to the audit process in accordance with ISO standard.

In addition, according to the Law on Quality of Health Care and Social Welfare, each health institution establishes a Quality Assurance Committee for the Health Institution responsible for the implementation of the improvement, establishment of safety, participation in the conduct of audits²⁴ as well as other activities related to quality assurance and positive legal regulations and norms of defined requirements.

As described, in the context of the Republic of Croatia, positive legislation has defined an approach to quality improvement as well as quality management system requirements. Health organizations have an obligation to undertake continuous improvement of the process as well as measuring the existing satisfaction of the interested parties, especially the healthcare customer.

²¹ Hrvatski zavod za norme. Hrvatska norma HRN EN ISO 9001:2015 sustavi upravljanja kvalitetom – zahtjevi. Hrvatski zavod za norme, 2015.

²² <https://www.zakon.hr/z/508/Zakon-o-kvaliteti-zdravstvene-za%C5%A1tite-i-socijalne-skrbi>

²³ PRAVILNIK O AKREDITACIJSKIM STANDARDIMA ZA BOLNIČKE ZDRAVSTVENE USTANOVE

²⁴ <https://www.zakon.hr/z/508/Zakon-o-kvaliteti-zdravstvene-za%C5%A1tite-i-socijalne-skrbi>

6. CONCLUSION

Requirements for continuous improvement of the process and improvement of the quality management system in accordance with positive legal regulations are placed on health organizations. To improve the process, organizations can use different tools and methodologies, one of which is the DMAIC methodology that is the basis of Lean 6 sigma's approach to improving.²⁵ The imperative of continuous improvements is not only related to standards but also to the growing demands of interested parties, especially customers. The quality of life of health care customers can be correlated with the quality of healthcare provided²⁶, which means that inadequate quality health services can impair the quality of life or result in a death outcome.

By improving the process, the health care organization does not only affect the customer satisfaction but also the cost of running the process. By eliminating process waste, organizational processes take place more efficiently and effectively as the flow of resources through the process increases. But most importantly, by involving employees in the process of improvement, or identifying opportunities for improvement²⁷, the organization develops a culture of constant improvement. One of the tools used in the constant improvement process based on the PDCA methodology of continuous improvements, which includes and encourages employee involvement in the improvement proposals is the A3 report. The A3 report of the organization encourages employees to identify and suggest improvements²⁸ which can result in increased customer satisfaction of the product or service.

By transforming the traditional organizational structure to a process-oriented, health organizations emphasize the purchaser of health services as a central figure in the business which can affect their satisfaction. By acknowledging the opinions and demands of the customer, the organization adjusts its processes to the identified requirements, which are the requirements of the positive legal regulations, as well as the norms that define the quality management systems. Despite various methodological approaches

²⁵ Benny Tjahjono, Patrick Ball, Valentin I. Vitanov, Claudia Scorzafave, Juan Nogueira, Minguet J. Calleja et al. "Six Sigma: a literature review," *International Journal of Lean Six Sigma*, 1, no. 3, 2010, p. 216-233.

²⁶ http://resources.hwb.wales.gov.uk/VTC/2011-12/vocational/health-and-social-care/tinopolis/deploy_unit_1/data/teachers/assets/U1_M1_Factors%20affecting%20quality%20of%20life.doc

²⁷ Mihai Apreutesei, Emil Suciuc and Ionela Roxana Arvinte, "Lean Manufacturing-A Powerful Tool for Reducing Waste During the Processes," *Analele Universității Eftimie Murgu Reșița. Fascicula de Inginerie*, 17, no. 2, 2010, p. 23-34.

²⁸ Durward K. Sobek II, and Art Smalley, *Understanding A3 thinking: a critical component of Toyota's PDCA management system*, CRC Press, 2011.

to improvement, any applied methodology has similar or the same result, improved processes.

Sažetak:

STALNO POBOLJŠANJE PROCESA KAO IMPERATIV UNAPRIJEĐENJA SUSTAVA UPRAVLJANJA KVALITETOM U ZDRASTVU

Kvaliteta života pod utjecajem sve češćih i dinamičnijih promjena u društvu opada. Pojavom novih zahtjeva kupaca zdravstvenih usluga, zdravstvene organizacije trebaju svoje procese prilagođavati i optimizirati kako bi bili u skladnosti s novo definiranim zahtjevima. No, zahtjevi kupaca nisu jedini koji koreliraju poboljšanje procesa. Pozitivnim zakonskim propisima i normama koje definiraju sustave upravljanja kvalitetom zdravstvenim organizacijama nameće se imperativ stalnih poboljšanja procesa kao i mjerenja zadovoljstva kupaca njihovih usluga. Poboljšanja procesa ne utječu samo na zadovoljstvo kupaca već i na smanjenje troškova odvijanja procesa kao i na protočnost resursa u procesu. Poboljšanjem i unaprjeđenjem procesa svake od zdravstvenih organizacija unutar zdravstvenog sustava države unaprjeđuje se i ukupni zdravstveni sustav što je od posebne važnosti u uvjetima sve veće zaduženosti zdravstva i pada efikasnosti usluga. Samo kroz stalna poboljšanja zdravstvena organizacija može odgovoriti na porast zahtjeva iz okoline.

Ključne riječi: *stalno poboljšanje procesa, sustav upravljanja kvalitetom, zdravstvene ustanove, zdravstveni sustav.*

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ISSN 2670-8825 (Tisak/Print)
ISSN 2670-8833 (CD-ROM)



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