Quality Management Systems in Croatian Institutes of Public Health

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Abstract. Quality is one of the preconditions to success in all areas, including the health sector. In recognition of this fact, continuous efforts are being made to improve the quality of health services in the Croatian health system. In addition to the mandatory application of the health care quality system, these efforts involve the integration of certification standards and health institutions accreditation standards. Accordingly, the paper presents the basic features and requirements of these standards, as well as the legislative framework of the Croatian health system aimed at improving the quality of health services, with special emphasis on improving the quality of healthcare and public health institution services. From the aspect of health services quality, special focus is placed on analysing the current situation regarding the implementation of a quality management system according to the ISO 9001:2008 standard and the accreditation standard for testing and medical laboratories in the Croatian institutes for public health, and a comparison is made with the situation in Slovenia. The principles underlying quality management systems are essential for the successful implementation of a quality system. In this context, this paper presents the results of research in terms of these principles applied to public health institutes in Croatian counties. Through the experience of others and the benefits that are achieved by applying accreditation and certification standards, especially the ISO 9001 standard, suggestions are made to ensure internal and external improvements in the activities of public health institutions.

Keywords: public health, accreditation standards, ISO 9001: 2008, TQM principles

1 Introduction

Due to the growing needs and expectations of all stakeholders, quality assurance and continuous improvement are becoming a necessary precondition to success in health care. The Croatian health system is aimed at increasing the level of quality of health services through the introduction of the mandatory application of a health care quality system and a voluntary health institution accreditation procedure, as well as the introduction of a certified quality management system according to ISO 9001: 2008.

Improving the quality of work in health care institutions, which is part of the daily activities of healthcare workers and all other employees in the health sector, is a continuous process aimed at achieving a higher level of work effectiveness and efficiency and enhancing customer (patient) satisfaction. A key step in this process is the integration of accreditation and certification (ISO 9000) standards in health care institutions. Through such an approach it is possible to influence the improvement of quality of work of institutions, taking into account the requirements of service users (patients) and the entire community.

In order to achieve its aims paper discusses on the quality of health care in Croatia in the second part, with the special emphasis on strategic documents and legal framework. In the third part of the paper main functions and instruments of public health are analyzed as well as its organization in the
Republic of Croatia. Considering the importance of certification and accreditation standards in the public sector (basic standard ISO 9001:2008 and other certification standards; ISO / IEC 17025: 2007 and ISO 15189: 2012 for accreditation in health care), in the fourth part of the paper the current situation in the Croatian public healthcare system from the perspective of the implementation of these standards is presented as well as the comparison with the Republic of Slovenia. A prerequisite to successful implementation of quality management systems is the application of TQM principles. Accordingly, this work presents the level of application of these principles in Croatian public health institutions. By underscoring the advantages that result from the application of certification and accreditation standards in the sixth part paper points out the importance of their implementation in the Croatian public health system. In the conclusion the current state in relation to the implementation of certification and accreditation standards is presented with the main emphasis on quality management principles and areas to be improved in their application.

2 Quality of health care

Health care encompasses a system of social, group and individual measures, services and activities for the preservation and improvement of health, disease prevention, early diagnosis, timely treatment and care and rehabilitation, and is organized at the primary, secondary and tertiary level of protection of which primary health care is the foundation of the entire system. (Zakon o zdravstvenoj zaštiti, 2015)

Quality health care is a basic human right, and its improvement helps to raise the level of quality of life of individuals. A country’s well-organized health system is also crucial to successfully increasing an individual’s quality of life. Health care quality encompasses a set of measures to be taken during the health process and which result in a favourable outcome of patients/service users’ treatment, while preventing events that could result in a negative outcome (Perišić 2015, 295).

According to the World Health Organization, "the quality of health care implies a health service that, by its nature, meets the defined requirements and, with the current level of knowledge and available resources, meets the expectations of patients to receive the best possible care with minimal risk to their health and well-being" (Anđić 2013, 232).

In the Croatian healthcare system, the quality plan and program are based on three basic elements: the definition of the social quality concept; laws and regulations; and structuring the organization of quality in health care within the Croatian society (Nasić 2008, 10).

One of the priorities in the National Health Care Strategy of the Republic of Croatia is to promote quality in health care in a way that will ensure the preconditions to realizing high-quality services through a documented quality management system that could be standardized, monitored, evaluated, accredited and certificated (Devčić-Jeras 2014).

Quality system application is a planned activity for all health care providers organized within the existing human and infrastructure resources. The law regulates the way in which individual users and health service providers are involved, the role of the health policy, and where quality is carried out and by whom. Quality becomes an obligation for all health care providers, ensuring the integrity of the patients' protection in the overall system, as well as the system itself (Nasić 2008, 11).

In 2000, the health care reform strategy launched a quality improvement project. Following the example of others, foundations were laid for establishing a national agency - the Agency for Quality and Accreditation in Health and Social Welfare (established in 2007). In addition to granting, renewing and revoking accreditations, the Agency’s activities also include designing and
implementing measures for improving health care quality and patient safety. The Agency is also involved in the evaluation of health technologies, as well as in educational processes in the field of the insurance, improvement and promotion of the quality of social welfare services (Nacionalna strategija razvoja zdravstva 2012-2020, 2012, 319).

Based on the Agency’s proposal, the Plan and program of health care measures for assuring, improving, promoting and monitoring the quality of health care (Plan i program mjera za osiguranje, unapređenje, promicanje i praćenje kvalitete zdravstvene zaštite, 2010) was established to ensure effective, high quality and accessible healthcare for everyone in all health sectors and at all levels.

The legal framework of the quality policy in Croatia is based on the Patient Rights Protection Act, the Health Care Act, the Health Care Quality Act and the Act on Quality of Health Care and Social Welfare.

The Act on Quality of Health Care and Social Welfare (Zakon o kvaliteti zdravstvene zaštite i socijalne skrbi, 2011) defines the principles and measures for realizing and improving comprehensive health care quality and provides a procedure for the accreditation of health institutions, companies that perform health activities and private health professionals. This Act also regulates the principles and measures for realizing and improving the quality of social welfare and the accreditation process for social welfare homes and other legal and personal entities engaged in social welfare activities (Zakon o kvaliteti zdravstvene zaštite i socijalne skrbi, 2011).

The benefits of applying quality systems in health care are multiple, from achieving better communication, clearly defined procedures and accountability, and better equipment maintenance to conducting proper documentation, system self-assessment, continuous monitoring of results and efforts to ensure continuous improvement (Zakon o kvaliteti zdravstvene zaštite i socijalne skrbi, 2011).

The implementation of a mandatory quality and safety system of health care should be achieved by applying a uniform system of quality standards of health care published in the Ordinance on standards and general rules of the right to health care under the compulsory health insurance system. The methodology for applying standards and appropriate quality indicators, as well as the documents for report preparation, can be found in the Manual on health care quality standards and its implementation published by the Agency in 2011, thus completing the legal framework for the implementation of measures for improving quality in health care. The manual has defined a total of 44 indicators of clinical performance and availability, and 11 indicators of patient safety. (Zakon o kvaliteti zdravstvene zaštite i socijalne skrbi, 2011).

International comparison of the quality of healthcare indicators from the perception of health service users has been developed in the last ten years. The European Health Consumer Index (EHCI) was developed with the aim of establishing a group of health indicators for health service users in EU countries. The Index is composed by combining public statistics, surveys conducted among patients and independent research. The latest EHCI index from 2013, as a measure of the health care quality system, includes 48 indicators in six categories, as well as a maximum number of 1,000 points. The first category analyses patient rights and awareness; the second, health services availability; the third compares health treatment outcomes; the fourth follows the range of services provided; the fifth evaluates prevention and the last one is dedicated to drugs. Points indicate the efficacy of individual categories, pointing towards the effectiveness of the health system in achieving positive outcomes for service users. (Vehovec 2014). Thirty-four countries (all EU member states, Norway, Switzerland and the candidate countries Macedonia, Albania, Iceland and Serbia) participated in the 2013 EHCI report. For many years the Netherlands, together with Denmark, Iceland and Switzerland, achieved the
highest points. At the lowest level are Romania and Serbia, while Croatia is ranked 20th out of 34 countries and is located at the intermediate level. Based on indicator scores and their international comparison, it is possible to plan the further advancement and improvement of indicators according to the possibilities of the health policies in each country (Vehovec 2014, 285).

3 Public health services

In the Republic of Croatia, the right to health is a constitutional right of all its citizens. The Patient Rights Protection Act (Zakon o zaštiti prava pacijenata, 2004) governs moral, ethical and civil behavioural norms of health services users and providers. It is based on the principles of humaneness and accessibility. Along with the Patient Rights Protection Act, the health care system in Croatia is regulated by the Health Care Act and the Mandatory Health Insurance Act. (Nacionalna strategija razvoja zdravstva 2012-2020, 2012).

According to the Mandatory Health Insurance Act, insured persons have certain rights and obligations in using health care services, as well as other rights and obligations in relation to health insurance.

The Health Care Act regulates the principles and measures of health care, the rights and obligations of users in health care, the social care providers to ensure population health, and the content and organizational forms for performing and supervising health care activities. Under the regulations of this Act, the Croatian healthcare system operates through a primary, secondary and tertiary system, as well as through a system of health institutes.

The main functions and instruments that are used in public health care are (Nacionalna strategija razvoja zdravstva 2012-2020, 2012, 140-141):

- monitoring and evaluation of health status and quality of life of the population,
- identification of priority health problems and dangers to public health,
- planning and readiness for emergencies in public health,
- health protection interventions from the harmful factors in the environment and workplace,
- disease prevention,
- health promotion,
- management, financing and quality assurance in public health,
- ensuring competent public health staff and the planning of human resources in health,
- public health communication and
- research and science in public health.

Public health institutes are major institutionalized providers and coordinators of activities aimed at preserving and improving population health in Croatia. At the county level, there are 20 institutes and the Institute for Public Health "Dr. Andrija Štampar "Zagreb.

The national carrier of this activity is the Croatian National Institute of Public Health. Public health activities for all public health institutes are governed by the Health Care Act which defines the activities of the Croatian National Institute and county institutes. Activities include the epidemiology of infectious and chronic diseases, microbiology, public health, school medicine, addiction prevention and mental health. The National Institute coordinates, directs and supervises the work of the county institutes for public health. The fundamental tasks of the Croatian National Institute for Public Health are public health monitoring, analysis, assessment and planning, proposing and implementing measures to preserve and improve population health. Tasks are accomplished through the activities of the Croatian National Institute for Public Health and county institutes (Nacionalna strategija razvoja zdravstva 2012-2020, 2012, 141). The 2011-2015 Public Health Development Plan (Plan razvoja
javno zdravstva za razdoblje 2011-2015, 2011) deals with the major health problems of the Croatian population and addresses the main challenges in preventing diseases and improving quality of life.

4 Certification and accreditation standards in public health

The official definition of standard according to EN 45020: 2004 states that a standard is a "document established by consensus and approved by a recognized body, providing, for common and repeated use, rules, guidelines or characteristics for activities or their outcomes, aimed at achieving an optimum degree of order in a given context". (Baković 2014)

Below is an overview of standards that can be applied in public health:

**ISO 9001: 2008** Quality management systems – Requirements, specifies requirements for a quality management system where an organization needs to demonstrate its ability to provide consistently a product that meets customer and applicable regulatory requirements and aims to enhance customer satisfaction through the effective application of the system, including processes for continual improvement of the system and the assurance of conformity to customer and applicable regulatory requirements (Vrtodusic Hrgovic 2013). The system established according to ISO 9001:2008 is complemented by the guidelines of ISO 9004: 2008 (Managing for the sustained success of an organization-A quality management approach), IWA 1: 2005 (Quality management systems - Guidelines for performance improvements in health service organizations) and good medical practice guidelines appropriate for the accreditation of individual services that a health institution offers.

International standard **ISO 14001:2004** Environmental management systems - Requirements with guidance for use - system allows organizations to establish and estimate the efficiency of the process defined in their environmental policy. It is applicable to all types and sizes of organizations, and it is upon the organizations to create an environmental management system that will be appropriate to their specific situation, position and capabilities and in accordance with their resources and processes. (Črnjar 2009)

**OHSAS 18001:2007** Occupational health and safety management systems – Requirements, is compatible with ISO 9001:2008 and ISO 14001:2004. It is intended to regulate occupational health and safety by assuring a systematic approach in decreasing potential risks and injuries at work. The standard is applicable to any organization that wishes to eliminate or minimize risk to employees and other stakeholders. (Vrtodusic Hrgovic 2013)

International standard **ISO/IEC 27001: 2013** Information technology - Security techniques - Information security management systems - Requirements, defines the requirements for the establishment, implementation, operation, monitoring, control, maintenance and improvement of a documented system for safety information management. The standard presents a framework for information security control and risk management. (Baković 2014).

**ISO 31000: 2009** Risk Management - Principles and Guidelines is an international standard that allows effective management of all risks. Chapters of the standard provide the principles of risk management, and define a risk management framework and the process of risk management itself. Together, these three elements of ISO 31000 provide a comprehensive set of guidelines for the effective implementation, maintenance and continuous improvement of the system of risk management. (Baković 2014).

**ISO 50001: 2011** Energy management systems - Requirements with guidance for use; gives the requirements for putting in place an energy management system (EnMS) applicable to all
organizations regardless of their type and size. The purpose of the standard is to enable organizations to establish systems and processes necessary to improve energy performance, including energy efficiency, use and consumption of energy. (Baković 2014).

Certification implies confirmation carried out by a third party, relating to products, processes, systems or persons. Contrary to certification that implies a process in which an independent organization based on the completion of a conformity assessment determines whether the product/process/quality management system/person satisfies criteria contained in the specific normative document, accreditation is the process of proving the competence of laboratories and other bodies to assess conformity in carrying out certain types and/or methods of testing, such as certification and inspection. Although accreditation is a voluntary decision of laboratories and other bodies for assessing conformity according to the requirements of the market, it is increasingly being applied in a regulated area as support to state administration bodies in implementing regulations governing the essential requirements and conformity assessment procedures, including testing, certification and technical inspection because it is an internationally recognized means of establishing trust in the work of laboratories, and certification and inspection bodies.

By establishing an accreditation scheme for laboratories and other conformity assessment bodies, the Croatian Accreditation Agency contributes to the development of quality systems in Croatian healthcare.

Accreditation criteria are contained in the European and international standards that are accepted in Croatia as Croatian standards, and the following standards are applied in the public health field (Bajzek Brezak 2008):

- Medical laboratories ISO 15189:2008

Accreditation is the third party attestation related to a conformity assessment body conveying formal demonstration of its competence to carry out specific conformity assessment tasks (HRN EN ISO/IEC 17000:2007, 2007).

Although the decision about accreditation is voluntary for each laboratory, accreditation to perform tests or calibrations in the legally regulated area is often prescribed by laws and regulations or it is a requirement for obtaining authorization from the competent ministries. It is awarded for a five-year period, which gives users confidence in the safety and quality of services provided by an accredited laboratory.

Testing and calibration laboratories accreditation criteria, for all laboratories with the exception of medical laboratories, are prescribed by ISO/IEC 17025. Medical laboratories are accredited according to ISO 15189. By accessing the accreditation process and laboratory accreditation according to ISO / IEC 17025 or ISO 15189, laboratories achieve international recognition and generate the possibility of international recognition of test results (Marinčić 2011).

The ISO/IEC 17025 defines the general requirements for competence in testing and/or calibration, including sampling and is applicable to all laboratories conducting tests and/or calibrations regardless of the number of staff and the scope of tests and/or calibrations. It assists laboratories in developing their quality management system, administrative and technical jobs.

International standard ISO 15189, which is based on ISO/IEC 17025 and ISO 9001, provides requirements for the competence and quality of medical (or clinical) laboratories and requires that laboratories comply with requirements for quality management and technical requirements.
With regard to local, national and regional regulations, ISO 15189 requires that medical laboratories demonstrate their competence to a third party assessor, which is usually a national accreditation body (Sierra-Amor 2007, 188). In Croatia, that is the Croatian Accreditation Agency.

The accreditation of medical-biochemical laboratories requires tracking and monitoring all laboratory processes, the interpretation of laboratory test results, and the creation of confidence in the quality of the results, thus contributing significantly to improving the quality of health care in Croatia (Flegar – Meštrić 2011).

5 Implementation of certification and accreditation standards in public health – Republic of Croatia and Republic of Slovenia

This part of the paper analyses the level of implementation of certification and accreditation standards in the Republic of Croatia and Republic of Slovenia.

At the state level, the Croatian and Slovenian governments are responsible for ensuring the necessary conditions for a healthy environment and life, and through the Ministry of Health they monitor the implementation of the key public health functions as well as the operation of preventive public health programs and the promotion of population health.

Public Health Institutes in Croatia are located in 21 locations, mainly in major centres: Bjelovar, Slavonski Brod, Dubrovnik, Pula, Karlovac, Koprivnica, Zlatar, Gospić, Čakovec, Osijek, Požega, Rijeka, Sisak, Split, Šibenik, Varaždin, Virovitica, Vinkovci, Zadar, Zagreb and Zaprešić. The central institution is the Croatian National Institute for Public Health.

In order to find out the level of implementation of certification and accreditation standards as well as quality management principles in Croatian Public Health Institutes the research was conducted among all Institutes of Public Health in Croatia. Questionnaire used in this research was based on Kanji approach (Kanji, 2002) and adjusted to the specifics of Institutes of Public Health. Questionnaires were sent by e-mail to Quality Department or Quality Managers in Public Health Institutes. A total of 21 questionnaires were returned and used for analysis (return rate of 100%).

The results have shown that out of 21 Institutes, six of them (29%) have a certified system according to ISO 9001:2008. All institutes, except two have accredited their testing laboratories according to ISO/IEC 17025:2007 (90%) and four (19%) have accredited their medical laboratories according to HRN EN ISO 15189:2008. Two institutes (10%) are certified according to ISO 14001:2004 for environmental management and protection. Research has also shown that most of them are planning to implement ISO 15189 (11 or 65% of those that have not yet implemented it). There are also institutes that are planning to introduce ISO 9001 (6 or 40%).

In relation to the level of implementation of quality management principles in Institutes of Public Health respondents have evaluated the level of implementation for each of them (by using Likert scale: 1 – very low, 5 – very high). According to Kanji, the TQM is based on five principles: Leadership, Delight the customer, Continuous improvement, Management by facts, People-based management (Kanji 2002, 3). The research has shown that Institutes that have ISO 9001 define quality goals (mean 4.33; st.dev. 0.5614) as well as determine current and future customer requirements (mean 4.5; st.dev. 0.5477). In relation to that they are using methods for measuring and analysing customer satisfaction (mean 4, st.dev. 0.6325) and have developed systems for resolving complaints in order to solve problems and achieve improvements (mean 4.5; st.dev. 0.5477). In relation to their internal customer (employees) they provide them what is needed in order to perform their job (mean 4.5; st.dev. 0.5477). Employees are also informed on the results of their work (mean 4.17; st.dev. 0.5477).
0.04082) and encouraged on teamwork (mean 4.33; st.dev. 0.5164). Some aspects were lower ranked, such as cooperation between departments (mean: 3.83; st.dev. 0.9832) and using system of employees’ suggestions (mean: 3.83, st.dev. 0.7528). Accordingly these aspects need to be more implemented.

With the publication of the document "The quality of the health care system in the Republic of Slovenia" and the chapter concerning health care quality in the "Health Care Reform White Paper," great attention has been paid to the systematic development of a national quality and safety system in Slovenian health care. (Albreht 2009).

The Association of Health Institutions of Slovenia (Združenje zdravstvenih zavodov Slovenije) is a professional organization of public health care institutions and other legal entities engaged in medical activities. The Association’s main purpose is to facilitate the integration and cooperation of all members, represent their interests and provide counselling, with the aim of ensuring better conditions for their work. The Association cooperates with similar national and international organizations and is a member of the European Association of Hospital and Healthcare Federation (HOPE). It was founded in 1963 and currently has 103 members (58 community health centres, 27 hospitals, three community health care centers, the Centre of Transfusion Medicine of the Republic of Slovenia, special health institutions, the Institute for the Protection of Health of the Republic of Slovenia and the Public Health Institute subsidiaries). According to the data available on the official website, since 1 January 2014, depending on the service that users (patients) require, Nacionalni inštitut za javno zdravje is the competent public health institution in Slovenia, while Nacionalni laboratorij za zdravje, okolje in hrano (NLZOH), situated in Maribor and with affiliates in Celje, Koper, Kranj, Ljubljana, Murska Sobota, Nova Gorica and Novo Mesto, is responsible for the field of laboratory services for health, food and the environment (www.nlzoh.si).

The organizational structure consists of several units - Centre for Medical Microbiology; Centre for Microbiologic Analysis of Food, Water and other Environmental Samples; Centre for Chemical Analysis of Food, Water and other Environmental Samples; Centre for Environment and Health; Official Medicines Control Laboratory for the Quality of Medicines as an independent centre within NLZOH; and General Administrative Services.

In 2003, the entire National Laboratory put in place a quality management system according to ISO 9001:2008; laboratories were also accredited according to standard EN ISO/IEC 17025, and the inspection body within the Centre for Environment and Health was accredited according to EN ISO/IEC 17020. The Centre for Environment and Health, as one of the organizational units of the National Laboratory, performs hygienic and environmental health activities.

The Centre for Microbiologic Analysis of Food, Water and other Environmental Samples and the Centre for Chemical Analysis of Food, Water and other Environmental Samples (with its units in Maribor, Celje, Koper, Kranj, Novo Mesto and Nova Gorica) are also certified and accredited according to EN ISO / IEC 17025, and in addition to accreditation, quality is ensured by good laboratory and good manufacturing practices.

The Centre for Medical Microbiology carries out its activities in additional two units - Ljubljana and Murska Sobota. All units are verified by the Ministry of Health and certified according to ISO 9001:2008. It can be concluded that all Slovenian public health affiliates are certified according to ISO 9001 and accredited according to ISO/IEC 17025. In the Republic of Croatia, the majority of the Institutes are accredited according to ISO/IEC 17025, one-third of them is certified according to ISO 9001 and four Institutes (19 %) have implemented ISO 15189. This indicates the need for intensified activities in terms of implementing the ISO 9001 standard in Croatia and the ISO/IEC 15189 in both countries.
From the data presented above it can be concluded that certification and accreditation standards are equally represented in the Slovenian Public Health Institutes, while in Croatian accreditation standards are more represented (90%) than certification standards (24%). This indicates the necessity for encouraging and raising awareness of the importance of quality management systems in public health. Also research on the implementation of quality management principles in Croatian Public Health Institutes that have certificate ISO 9001 indicated activities need to be taken, especially those related to fostering cooperation between departments and motivating employees to give suggestions.

6 Advantages of implementing certification and accreditation standards

Standards play an extremely important role in the daily lives of individuals, companies and organizations. There is a large variety of quality standards today, developed in almost all areas of human activity, including health care.

A business management system established according to the principles of ISO 9001 is the basis that ultimately leads to continuous improvement. Health institutions and other stakeholders can expect the following benefits from the certification and maintenance of the ISO 9001 system (Ančić 2013, 240):

- business / process / patient oriented management system
- better compliance (audit at least once a year)
- earlier problem detection
- foundation for other standards implementation (environmental protection, safety at work ...)
- internationally compatible and recognized standard.

Despite the many shortcomings of, and even negative attitudes about, the ISO 9000 family of standards, the prevailing opinion is that the benefits of the application of these standards greatly outweigh their drawbacks.

A survey conducted in Bulgaria on a sample of 13 hospitals indicated the following advantages: greater patient focus, increased effectiveness, continuous improvement of key processes, increased patient safety, reduced number of complaints, improved system documentation and easier detection of mistakes. (Stoimenova 2014)

According to a study by Sangüesa, Mateo and Ilzarne on the example of 101 Spanish hospitals, it is evident that quality management systems are largely applied in Spanish hospitals. Namely, 71.4% of respondents use the ISO 9001 quality management system, of which 97% apply it to the individual departments within the hospital. The ISO 9001 benefits identified by the study are: independent (third) party evaluation criteria, which ensure greater confidence in the system applying ISO 9001; the methodology of conducting internal control and improvements in the system; international recognition; and ensuring the continuous flow of information (especially through internal audits and self-assessments) (Sangüesa 2007).

Having reviewed the literature on various quality control models (QC, Six Sigma, ISO 9000, MBNQA, EFQM), Hee Lee points out that as in other sectors, the ISO 9000 standard can also be applied in the healthcare sector (for example, in surgery, psychiatry and laboratory services) and can be used as a new tool for quality system improvement. Also, in the opinion of 254 managers of hospitals and health institutions, the ISO 9000 family of standards contributes to the improvement of operational efficiency in providing services and in collaboration among organizational units (Hee 2012).

Reviewing the literature, Abdallah points out that there are many literature sources exploring TQM application in the health sector. According to studies conducted, the staff of organizations that apply
TQM have noticed improvement in all activities, increased productivity and greater profitability. (Abdallah 2014).

In many countries around the world, accreditation is introduced as part of a comprehensive strategy for continuous improvement of the quality of work of institutions, systems and health care outcomes, for the benefit of patients and other stakeholders. However, the effectiveness of the program itself, its sustainability and availability, depends on the healthcare system of each country, the type of program selected and the way that the program was implemented (Borovina-Baklaja 2011, 4).

Accreditation provides numerous benefits to the accredited bodies, as well as to society as a whole; it ensures the improvement of a laboratory’s organizational and technical competence. End users gain confidence in the security and quality of delivered products and services after they have passed the accreditation criteria (Baković 2014). Furthermore, accreditation enables healthcare institutions to focus on what is good and what is not and what requires improvement and advancement in their institutions (Borovina-Baklaja 2011, 4).

Therefore, when talking about accreditation standards, it is necessary to say that the main reason for accreditation should be the wish to be recognized as an organization which people can have confidence in with regard to its competence and the reliability and accuracy of its results based on which informed decisions can be made. This recognition is provided by a national accreditation body that makes sure the accredited organization continuously maintains its competence and constantly meets quality requirements (Grgić 2013). There are many reasons explaining why is it good to be accredited, starting with quality assurance at all business levels, better work organization and improved communication among staff, greater confidence in their work, continuous quality improvement, thinking about quality and, in particular, proven competence and recognition of technical possibilities which ultimately lead to recognition in the market (Grgić 2013, 15).

Gradečki-Poštenjak, Jakovljević and Ćelepirović emphasize the reliability of test results and their international recognition as a major accreditation advantage. Internationally recognized results reduce additional testing and facilitate communication with the market, since accreditation increases the confidence of both users and employees in the laboratory (Gradečki-Poštenjak 2006, 171).

7 Conclusion

Health care quality is one of the most important factors in the health care system. Continuous improvement of work quality and patient safety are an integral part of the daily activities of health employees and other employees in the health system. The aim of introducing a quality management system in health care institutions is to ensure continuous quality improvement in the health care system. This is a continuous process focused on achieving higher levels of efficiency and effectiveness in everyday work, as well as greater customer (patient) and medical services provider satisfaction. Safe and high-quality health care should become a priority of each part of the health system and the individuals conducting health care. Employees in health sector in their daily work should be encouraged to actively seek opportunities and areas for quality improvement and reducing the possibility of unwanted events that can be risky for users (patients).

Therefore, the paper presents certification and accreditation standards that can be applied in public health as the basis for improvements in this sector, as well as the benefits that can be achieved by their application. Based on analysis in terms of the application of international quality standards in the Republics of Croatia and Slovenia, the obtained results indicate that both countries recognize the importance of quality and its role in a global, competitive environment. In relation to the
implementation of ISO 9001 in Institutes of Public Health in Croatia research results have shown that one third of them have certified system and high level of awareness of quality management principles and their implementation, although certain improvement can be done (cooperation between departments, using employees’ suggestions).

Almost all institutes in Croatia have accredited testing laboratories according to ISO /IEC 17025: 2007 and the accreditation of medical laboratories according to ISO 15189:2012 has also begun. In public health of the Republic of Slovenia, certification (ISO 9001) and accreditation standards (ISO/IEC 17025) are equally represented.

Although in Croatia, accreditation standards outnumber certification standards due to the growing demands of stakeholders for an ISO 9001 certificate and to ensure the complete satisfaction of customers and partners, there is an obvious need to intensify activities aimed at enhancing the level of application of quality systems in public health.

Presentation of benefits of certification and accreditation standards can originate their implementation in public health. Research results can also represent a good baseline for quality improvements for those Institutes that are already implementing quality management as well as for those who are planning to implement it.

References


