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# Challenges For Health Care Development in Croatia

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## ABSTRACT

*The main aim of the research done in this paper was to establish key challenges and perspectives for health care development in the Republic of Croatia in the next two decades. Empirical research was conducted in the form of semi-structured interviews involving 49 subjects, representatives of health care professionals from both, public and private sectors, health insurance companies, pharmaceutical companies, drug wholesalers, and non-governmental organisations (patient associations). The results have shown that key challenges and problems of Croatian health care can be divided into three groups: functioning of health care systems, health care personnel, and external factors. Research has shown that key challenges related to the functioning of health care are inefficiency, financial unviability, inadequate infrastructure, and the lack of system transparency. Poor governance is another limiting factor. With regard to health care personnel, they face the problems of low salaries, which then lead to migration challenges and a potential shortage of health care personnel. The following external factors are deemed to be among the most significant challenges: ageing population, bad living habits, and an increase in the number of chronic diseases. However, problems caused by the global financial crisis and consequential macroeconomic situation must not be neglected. Guidelines for responding to challenges identified in this research are the backbone for developing a strategy for health care development in the Republic of Croatia. Long-term vision, strategy, policies, and a regulatory framework are all necessary preconditions for an efficient health care system and more quality health services.*

**Key words:** European Union, health care system, challenges, Republic of Croatia

## Introduction

Today, the key question is how to redesign health care systems without damaging the foundations these were built on. Research has shown that the costs of financing health care (as a percentage of GDP) will increase in the near future<sup>1,2</sup>. Around one third of this increase will be the consequence of an ageing population, and the remaining two thirds will refer to the excessive growth of costs, reflecting thus technological changes, income growth, the Baumol effect, and health policies<sup>2</sup>. It is necessary to point out that the increase in health costs occurs at a time when countries need to undertake significant fiscal adjustments to reduce public debt and state budget deficit in the light of the global financial crisis. All of this leads to conclude that the challenge for the sustainability of health care financing has nowadays reached considerable proportions. There are several other factors that also affect health care expenditure<sup>3</sup>: health status and

functional ability, death-related costs, economic growth, labour market, technological progress and development of medical science, legal and institutional settings, and the existing capacities. Kutzin<sup>4</sup> also mentions the extent of political-administrative decentralisation in a country as a critical contextual factor.

Demographic changes are perhaps the biggest challenge for health care systems. In parallel with a drop in the fertility rate and longer life expectancy, the general population size continues to decrease and the number of older people continues to increase. The expenditure per citizen belonging to the age group 85–89 years is on average five times higher than the expenditure per citizen belonging to the age group 35–39 years<sup>5</sup>. In countries with low fertility rate and an ageing population, the volume of productive labour decreases relative to the rest of popu-

lation (unless this decrease in fertility rate is compensated for by labour immigration), which also reduces the basis for collecting income for health care system. In Europe, only Germany and the Netherlands cover over 60% of health care expenditure relying on contributions related to the employment<sup>4</sup>. Furthermore, an increase in chronic diseases is another aggravating factor that affects the organisation and functioning of health care systems.

Social changes such as the development and distribution of information and communication technologies and acquiring knowledge of this area will affect health care systems, that is, their organisation and functioning. On the other hand, insufficient resources, the lack of coordination between health care participants, overlapping commitments and tasks are only some of the factors that restrict further development of health and innovation in this area, as well as their commercialisation and wider application<sup>6</sup>.

Besides all of the abovementioned problems, there is a consensus on the issue of huge inefficiencies in health spending, which means health results can be improved<sup>7</sup>. The most frequent causes of inefficiencies include inadequate and ineffective use of drugs, medical errors, sub-optimal quality of care, corruption, and fraud. Because of all this, many countries can achieve the same level of health results with a lower level of health spending. Research has shown that reducing inefficiencies by half in OECD countries would increase life expectancy at birth, on average, by more than one year<sup>8</sup>. WHO estimates that 20 to 40% of resources spent on health are being wasted<sup>9</sup>.

Despite their economic differences, countries of South-East Europe shared the same historical features of health care until 1989. Health care service provision was based on the Semashko model. This was a highly regulated, centralised, and standardised system that was operated through health ministries. During the process of transition, coverage levels dropped because of governmental inability to finance previous amounts. The fiscal pressure to get benefits in line with incomes prompted the reforms of benefit packages in many countries. In some countries of South-East Europe such as Hungary, Croatia, and Poland, the gap between benefits and income did not only bring about an increase in informal payments, but it also led to continuous health insurance fund deficit or accumulated debts of service providers<sup>10</sup>.

Since the expected date of Croatia's accession to the EU is 1 July 2013, the issue of health care development in Croatia must also be considered from this regional aspect, that is, from the EU aspect. The accession of the Republic of Croatia to the European Union will affect all segments of economy and society, health care included<sup>6</sup>. General or universal health care is guaranteed by the constitution of many EU member states, as well as by several international charters and conventions signed by the EU. Because of specific historical reasons, health care and social welfare are for the most part not directly linked with the EU common policy and are consequently not part of the EU *acquis communautaire*. EU member states are entitled to take their own decisions on

social and health policies, the organisation of health service, its financing, and the scope of care. The EU has as many health care systems as it has members. Yet, it can be said that health care policies in EU member states are under the direct impact of rules and objectives of the EU<sup>11</sup>.

When Croatia joins the EU, it will face new rules and priorities in line with the current European health strategy. This strategy emphasizes the importance of developing such a health care system that will be based on common values and principles, reducing thus inequalities. It also underscores the significance of strengthening the EU voice on a global level through coordination with international organisations. There is also a possibility to draw funds from the European cohesion funds. The priority areas for investment include: health infrastructure, e-health, providing access to health care for the most vulnerable groups, emergency health care, medical equipment, occupational health and safety, health promotion and disease prevention, education and training for health workers, information technology, cross-border cooperation etc. Furthermore, free movement of persons within the EU is one of the fundamental rights guaranteed by Community law. Potential advantages of Croatia's accession to the EU related to human resources refer to the possibility of providing health services to insured persons from other EU countries. This is where we can exploit our advantage of being a tourist destination, that is, of developing health tourism. Negative consequences of the accession might be the »brain drain« of medical doctors, nurses, and other health care professionals to the EU, and the inflow of other health care personnel. Joining the EU will also compel Croatia to face new guidelines on patient safety and new rules on patient mobility<sup>6</sup>.

Moreover, when defining the direction of its development, Croatia must bear in mind the EU guidelines and decisions that are mentioned in the basic strategic documents for the area of health: »Together for Health: A Strategic Approach for the EU 2008–2013«; »Europe health programme for 2008–2013«; a new programme for the period 2014–2020 entitled »Health for growth« with a budget of 446 million euros; health policy »Health 2020« proposed by the World Health Organization; and a broader EU development strategy »Europe 2020«.

Health care in the Republic of Croatia shares similar problems to health care systems in other EU member states. To be fully efficient and meet all the expectations and needs of demand, a health care system must consider several key challenges<sup>1</sup>: ensuring equal access, reducing waiting times, exploiting available resources better, providing continuous care by coordinating activities, ensuring patient safety, creating a coordinated legal framework, and providing quality services. This is why various measures have been proposed<sup>12</sup>: to increase co-payments and reduce exemptions from payments, further reduce subsidies for pharmaceuticals, accelerate the introduction of the method of payment based on the groups of diagnosis (Diagnosis Related Groups), limit the basic benefits package covered by the Croatian Health Insurance

Institute, reallocate funds to more affordable outpatient care, increase the role of the private sector in providing health care services, strengthen the initiatives for general practitioners to reduce referrals to further examinations and treatments, and rationalise the hospital network.

According to a study where five countries were analysed: Turkey, Romania, Croatia, Bulgaria and the Republic of Macedonia, recommendations for Croatia referred to the changes in co-payments for social insurance and to defining better which services were covered<sup>13</sup>. Irrespective of the reforms undertaken in all five countries, further reforms of health policies are recommended. These would promote the objectives of financial sustainability, efficiency, and equity in the framework of these health care systems.

Prompted by the recently published results of a research conducted by the Economist Intelligence Unit on the future of EU health care and forecasts for 2030<sup>14</sup>, research carried out and described in this paper aimed at gaining an insight into the current state of play, advantages, and disadvantages of Croatian health care, and potential development scenarios in the next two decades. Given the fact that the date of joining the EU has already been set, Croatian health care development is looked at from the perspective of a future member state.

A quality health care system must strike a balance between the wishes and the needs of people, in such a way that it ensures improved health for individuals, families, and communities; protects people from various health threats; determines rational costs of treatments; ensures equal access to health care for all; and involves citizens in the process of health care development and governance<sup>9</sup>. In accordance with the abovementioned, it is important to develop clear and comprehensive health strategies and policies and ensure valuable information on the positive and negative aspects of the system in order to reach the best possible decisions.

The main aim of this research is to gain an insight into modern challenges and perspectives for health care development in the Republic of Croatia. In line with this, the research question is as follows: What are the key challenges for health care development in the Republic of Croatia?

## Research Methods

### *Methods of research implementation*

This research was implemented in the period between June and October 2011 within a broader research whose scope was to provide a better understanding of the situation and perspectives for a future development of health care in Croatia. The selected method of research was a semi-structured interview, which can be audio recorded, carried out online (chat, e-mail...), and/or by phone<sup>15</sup>. The main advantage of the method of in-depth interviews is that they provide more detailed information than what is possible to collect through other methods<sup>16</sup>.

The research on the state of play and perspectives for a future development of health care system in Croatia was conducted in three main stages:

1. Background research: investigating the problem by reviewing the available literature.
2. Construing the main research.
3. Main research that covered 49 subjects.
  - 3.1. Step one: synthesising main topics.
  - 3.2. Step two: analysing.
  - 3.3. Step three: interpreting results.
  - 3.4. Step four: verifying and reporting.

Research problems were analysed against today's situation (year 2011) and against the perspective on development and potential future state of play (year 2030). Account was taken of the research conducted at the EU level on the development of national health care systems in member states by 2030<sup>14</sup>. Besides, analysing both the current state of play and future perspectives allows for high quality results to be obtained, which is significant, as these will later be used to develop recommendations for implementing policies that will minimise potential negative effects and stimulate potential positive developments.

### *Participants in the research*

The main research involved subjects that were relevant for the established research problems. Interviews were conducted with 49 subjects in the period from the beginning of June until the end of September 2011: 23 of them were health professionals, 8 were representatives of health insurance companies, 10 were representatives of pharmaceutical companies and suppliers, and 8 were representatives of patients' associations among which there was a coalition of associations that covered 70 patients' associations. Account was taken of the bias, that is, impartiality was ensured. Subjects had to be relevant for the area of research, and their knowledge had to be such that it could contribute to determining the implications of Croatia's accession to the EU for health care in Croatia.

Ethical issues are always present in all types of research<sup>17</sup> and all subjects must be informed on the objectives and main points of the research<sup>18</sup>. The main ethical issues that were taken into account during this research were: (1) subjects' consent, (2) privacy, and (3) data confidentiality.

### *Data processing*

Table 1 shows the main research question and definitions used in its elaboration. The metacode used in the process of research implementation was designated as H1. Following the multilevel principle, the pertaining codes were presented in the same way: functioning of the health care system, health personnel, and external factors, whose frequencies are shown in Table 1. An example of a matrix for each theme code is shown in Table 2. Each participant was marked by the letter »I« and appropriate ordinal number.

**TABLE 1**  
INDEX OF THEME CODES USED IN THE RESEARCH AND THE FREQUENCIES OF SUB-CODES

Metacode	Sub-codes	Frequencies	Relative share of sub-codes in the metacode	
H1			420	
	Functioning of health care (2011/2030)	H11 <sub>2011</sub> /H11 <sub>2030</sub>	222/84	53%/20%
	Health personnel (2011/2030)	H12 <sub>2011</sub> /H12 <sub>2030</sub>	51/21	12%/5%
	External factors (2011/2030)	H13 <sub>2011</sub> /H13 <sub>2030</sub>	26/16	6%/4%

**TABLE 2**  
AN EXAMPLE OF A MATRIX FOR EACH THEME CODE

Subject	Theme code H11 <sub>2011</sub> (key problems in Croatian health care in 2011)	
	Encoded interview segment	Code interpretation
I4	Plenty of politics and some argumentative debate, a serious problem is the affiliation of a large number of physicians with one political option or the other, and consequently a slim chance of reaching a general consensus on important issues.	Political affiliation of physicians and consequential lack of constructive cooperation.
I26	General practitioners and family doctors resolve only 50% of patient problems, whereas this figure is as high as 80% in the EU.	Inefficient primary health care in Croatia compared to EU countries.
I41	General practitioners and family doctors are rarely interested in training patients and tend to turn into »medical cookbooks« prescribing recipes, which in turn have been prescribed by specialists who think they are godsends.	Under-exploitation and non-involvement of general practitioners and family doctors.

## Results and Discussion

The analysis of key problems of health care in the Republic of Croatia has been divided into three parts: (1) functioning of health care systems, (2) health personnel, and (3) external factors. Subjects' task was to point to the problems of health care today (year 2011), and the problems they expect to see in 2030.

The most prominent problems highlighted by the subjects are related to the functioning of Croatian health care today. These refer to the unsustainability of financing (I16: »the costs of health care keep growing much faster than the European average«; I17: »the share of contributions for health is insufficient and irrationally exploited«) and other financing related issues (I1: »incomplete use of the state-of-the-art technology because of financing; an insufficient number of invasive surgical procedures because of the impossibility to procure consumables (stents, catheters), whereas very costly medicines are often prescribed with no clinical benefit«; I13: »non-transparent spending«; I14: »the financing model is completely wrong«). I45 underscores that »there is no strategy for a systematic fight against the generators of health costs«.

Furthermore, the subjects often express their concern in respect of the following problems: system ineffectiveness (I18), inadequate governance (I22, I45), unavailability of identical health care level to all citizens (I12, I18, I28), not following algorithms both in diagnostics and in therapies (I1: »For example, how come Croatian Health Insurance Institute organises five times more PET/CT scans in Croatia than what is recommended by the guide-

lines of the Royal College of Radiology?«), as well as the lack of clear and professional control over medical procedures. I25 points out that there is also a problem of public income being centralised.

A problem of too high a number of hospitals is also highlighted (I6: »too extensive network of hospitals and irrational employment in these«), and so are the problems of »the classification of hospitals« (I7), inappropriate evaluation of work in hospitals (I1), the need for hospital modernisation (I31), low liquidity of some hospitals, limited hospital budgets (I20: »hospital budgets are limited and depend on central distribution, rather than on real needs«), the profitable character of health system leads to more costly and less efficient services provided to patients (I31: »An attempt to structure health care as a profitable system (for example, hospital directors who want to have managerial salaries and profits). Because of this, hospitals must »get by« and charge the acute/chronic patients; withhold patients for longer than necessary etc.«). I30 states that »in Croatia, there are too many general hospitals whose capacities are only half-full, and some have even got a highly expensive equipment that is not fully used at all«. I11 underscores that there is a problem of »the lack of university health institutions«. Where infrastructure problems are concerned, the subject I43 claims that there is not enough equipment, and the buildings are inadequate both for patients and personnel. Another huge problem is seen in the lack of hospices in the Republic of Croatia and underdeveloped palliative care (I30).

The subjects believe that the patient is not an equal participant (I33, I13: »the patient is not an equal partici-

pant, patient associations are only there for 'decorative' purposes») and that he is not the centre of the attention (I22). I14 points out that »patient rights are in utter disagreement with health contributions«, and I17 is of the opinion that »patient rights have been proclaimed and defined by law, but this is not the case with their obligation to safeguard their health and healthy lifestyle«, which is something I20 agrees with: »patients think that they are entitled to everything free of charge with no reciprocal responsibility for their own health«.

Another problem are the unrealistic prices of health services (I7: »For example, the value of the service of providing specialist/subspecialist reports of findings compared to the value of the service of providing findings after the tests have been made«; I29: »unrealistic prices of health services in the public sector«, but also I21: »Decentralised funds are a poor way of managing finances that we do not have. Health care services, as is the case everywhere else, must be inclusive of the price of depreciation over the x number of years«. I31 thinks that »Croatia – the social state in which all citizens enjoy equal rights to treatment – counts its last days«. Some subjects point to the problem of high contributions for social welfare (I28).

Furthermore, the subjects believe that prevention is entirely neglected (I15, I3, I8, I17, I28). I30 says that »preventive measures in health care have been neglected and are largely brought down to systematic check-ups within companies and institutions, which are mostly agreed upon through contracts with private health institutions«. An additional concern refers to the inexistence of systematic addressing of public health issues (I21).

There are also problems related to the functioning of the Croatian Health Insurance Institute (I31: »The Institute uses taxpayer's money to finance the work of private clinics and undermines thus the work of public hospitals«; I33: »it is unclear what is covered by the Institute«). Excessively long payment deadlines are underscored as a problem as well (I6, I46). The subject I29 also mentions the problem of non-transparency and inefficiency of spending of funds from the compulsory health insurance.

The subjects feel that health care lags behind other sectors in terms of quality improvement. Moreover, they have the impression that public health is powerless (I16: »pandemics of chronic diseases caused by lifestyles«).

Furthermore, the subjects point to the problems related to e-health (I11: »e-health does not involve product certification or evaluation, I see no strategy for e-health development; it is necessary to provide medical and IT training to all health care and IT professionals and health informatics should become an acknowledged health activity«).

The problems in relation to primary health care were underlined: poor functioning of primary health care (I45: »neglected and unorganised primary health care«) and community health centres (I1: »poor functioning of primary health care and community health centres with

consequential hospital overload«), primary health care privatisation (I2: »because of the way in which concessions are contracted in primary health care, family doctors and general practitioners are not motivated to do more work in their offices, as they have lower costs if they refer their patients to a specialist outpatient clinic«; I33: »primary health care earns more when it has less patients and expenditures related to these«), family medicine overload (I17: »Family doctors or general practitioners are »falsely privatised«, first the lease, now the concession, they are wasting their patients' precious time by dealing with administrative tasks, having too many patients, and dealing with the application of e-health that is at this point implemented in a rather unplanned and disorganised way.«), too many referrals (I9), inefficiency of primary health care in Croatia compared to the EU (I25: »Family doctors or general practitioners resolve only 50% of patients' problems, whereas this figure is as high as 80% in the EU.«), and underexploited and uninvolved family doctors. The »system of sick leaves« is also deemed a problem, as it »goes through family doctors, whereas it should go through insurance approval, as should be the case with travel orders and other similar issues« (I21). I17 also points to the fact that equipment is not renewed and neither are the working premises in family medicine (I32 feels the same), and I20 thinks that »prescribing drugs by general practitioners is non-critical and too frequent (tranquilisers and blood pressure medicines)«. I21 believes that family medicine is not invested into, and I26 thinks that »the role of community nurses is poorly acknowledged in primary health care«.

Furthermore, the subjects emphasize that waiting lists are also a problem (I9, I13). »Records of health care personnel and material resources in health are often incomplete and not updated« (I11). I2 believes that »there are no clearly defined health priorities because of a rather poor quality of routinely collected health data and the lack of interpretation of such data«.

Other problems that the subjects listed are: lack of determination and transparency (I17), in particular in public procurement (I25), health administration (I20), I23: »absolutely no possibilities for developing new technologies are provided by health administrative institutions«. I15 stresses that »state administration does not disclose the real state of play to the public«.

As for health insurance, it is deemed that additional health insurance is neither defined nor developed, but this could also be said for compulsory health insurance, I8: »undefined pool of rights arising from compulsory health insurance« (I28: »lack of transparency of rights and obligations arising from health insurance«; I45). Furthermore, I8 underlines that another problem is »unselective and unplanned inclusion of the private sector in compulsory health insurance«. The proposal is to »involve private health insurance companies in the coverage of treatment costs« (I10) and to »make the financing model for compulsory health insurance socially more equitable« (I45).

I4 underscores that medical doctors have a tendency to be politically affiliated and therefore lack constructive cooperation. I16 says that »in its attempts to undertake reforms, the administration fails to cooperate with the profession«. In terms of health reform implementation, I17 is of the opinion that »health reform underway is not a structural reform and has brought along a number of unnecessary problems, as there has been no good communication practice with all stakeholders in health«. I36 points to the »undemocratic decision making in health with no public debate«. The subjects have also highlighted the problems of corruption (I47) and nepotism (I42).

Insufficiently raised awareness on the needs of care for the elderly (I45) and chronic diseases is also seen as a problem (I15: »insufficient chronic disease care increasing the costs of treatment at a later stage«). I8 believes that »health care is overly dependent on the state budget«. I29 thinks that there is a lack of »an objective assessment of the health status of citizens«.

The subjects are of the opinion that Croatian health care lacks vision and strategy (I11: »it seems to me that there is no adequate health care development strategy and that changes and reforms are introduced/implemented in line with the wishes of individuals who hold decision-making positions in the government«; I2: »the lack of vision and strategy in health care«; I34: »the lack of any strategy of health care development«).

In terms of health care personnel, most subjects define identical current key problems. The most frequently mentioned are: inadequate salaries of health professionals, potential outflow of health professionals to other countries with better conditions (I3) or from public to private sector (I1: »unsatisfactory financial status of medical doctors in some fields of activity in public institutions compared to private institutions, which is utterly illogical, as both sides are financed by the Croatian Health Insurance Institute; as a consequence, there is an outflow of personnel from public to private health care and academic medicine is jeopardised«; I31: »the current political situation leads to an increased outflow of our finest medical doctors who move over to the private sector looking for better conditions, endangering thus the quality of Croatian hospitals«), and the shortage of health care personnel (I11, I6, I21, I25, I32, I45). I32 says that other problems are work overload and inadequate conditions in which health personnel operate.

Moreover, an excessive number of non-health personnel is also seen as a problem (I2: »in some institutions, the ratio of professionals and 'logistics' is 1:1, which is a considerable and unnecessary burden for the system«), and so is the lack of a system for monitoring the quality of work and stimulation (I2: »it seems that nowadays resourcefulness is what is rewarded«; I14: »there is no reward model for the participants of the system«; I21: »there is no rewarding of excellence among medical personnel«). I2 points to »medical doctors being tied by multiannual contracts for the purpose of completing their specialisation courses«. There is a particular prob-

lem of inadequately trained health managers (I7: »the lack of trained managers in top positions«; I32: »the business of health institutions is run by doctors instead of trained managers«).

I12 accentuates the problem of »the lack of knowledge verification for licence renewal«. I10 proposes »that compulsory exams be introduced for medical doctors to check if they have acquired new knowledge«. I13 says that »impoliteness of health care personnel is often accompanied by incompetence and coarseness«, and I33 mentions the problem of »still rather rare cases/examples of assuming responsibility for medical errors«.

The decreasing attractiveness of health professions is also underscored as one of key problems (I17: »Being a medical doctor is no longer an attractive and socially recognised profession; on the one hand it takes a life-long education to do quality work in this humane and stressful profession, whereas on the other hand, tasks and obligations imposed by the society keep increasing and so does the possibility of lawsuits and court proceedings.«). Other problems are the lack of life-long learning schemes (I13), negative selection (I12: »career advancements not based on professional, organisational, and scientific achievements«), and not introducing new professions in health (I44 gives the example of echo sonographer jobs). I1 also lists the problem of the lack of transparency of the system of clinical trials »which allow a group of doctors in specific institutions to make huge earnings with no clear benefit for the institution«. I12 is particularly concerned with »the lack of communication and professional debate between experts« and »the lack of experts' and expert societies' influence on the implementation of national health care policy«, whereas I46 sees a problem in »the insufficient cooperation between medical doctors and pharmacists«.

The following paragraph refers to the key problems in health care related to external factors, which were defined by the subjects. These problems are mostly brought down to the pandemics of chronic diseases caused by lifestyles, inadequate legal regulations (I11), failure to use public institutions to promote health (I2: »Public institutions, primarily the state television, are not used to promote health, but rather to advertise alcoholic beverages and harmful foodstuffs.«), poor education of citizens about health (I20: »there is almost no education of people about health«), »the impact of pharmaceutical companies on health care workers« (I26), and the impact of politics on health (I22: »politics prevails over profession: decision making is not based on the power of argumentation but rather on the argument of political power«). I6 also mentions that »the state fails to understand that health tourism can become a significant branch of tourism«.

In terms of health care issues that will be raised by 2030, the subjects listed almost the same problems as those we face today. However, there were some differences. The following part gives the results of the analysis across the three already identified segments.

Where key problems related to the functioning of health care systems by 2030 are concerned, the most fre-

quently mentioned problems were the outflow of health professionals to more developed countries, palliative care (I2: »the shortage of resources for palliative care«), and the lack of hospices (I17). Likewise, the subjects foresee further problems with the financing of health care (I27 foresees »sharp growth of costs«; I4, I5, I13, I12, I39).

Harmonisation with European standards and systems is also seen as a problem by some (I2, I3), and I6 emphasizes that »Croatia will share all advantages and disadvantages of the rest of the EU«. I26 thinks that »Croatian health care system will be moving along the lines of the problems and solutions that will be current in the EU«. Many subjects expressed their concern that health care would remain the same as it was in 2011 (I11: »I am afraid that it will remain the same as it is in 2011«; I13: »I expect to see the same problems in 2030 as we have today.«). Furthermore, there is a problem of unevenness (I28: »uneven distribution of equipment across health sectors and uneven distribution of potential resources across regions«; I16). I36 warns of the problem of »unsustainability of the concept of 'everything for one patient'«. I12 believes that »primary health care will have a more powerful impact and supervision«, and that »citizens will become more aware of their responsibility«. According to I8, »the rights from the compulsory health insurance will be redefined in terms of transferring responsibility for own health to the insured person«. I8 also mentions »the possibility of pursuing new methods of treatments and using the latest technologies« as a positive step. I1 thinks that the problems of Croatian health care in 2030 will depend on the efficiency of health administration. I15 proposes to »encourage more the inclusion of citizens' initiatives into the system, which was only an illusion until now«. I12 believes that »it is difficult to foresee the situation in Croatia because of the lack of strategy«, and I21 thinks that 2030 is too far away to

make any analysis (I21: »Isn't it too far away?«). I43 deems that »by 2030 there will be no Croatian health care system but only the EU health care system, which will be managed by the mega-ministry from Brussels with its subsidiary in Zagreb«.

As for the problems related to health personnel and their situation by 2030, the subjects are of the opinion that the main problem will be the shortage of personnel (I5, I2, I12) and the 'brain drain' of personnel (I3). I12 is concerned with the lack of information on the education level of health personnel that immigrates to Croatia. I23 thinks that the salaries of health professionals will be lower than today and that there will be no shortage of medical students.

In terms of external factors, according to our subjects, the main problem in 2030 will still be the ageing population (I27, I12, I9, I18, I13, I33, I16) and the increase in chronic diseases (I5, I9, I17, I13, I33).

Table 3 shows the summary of key challenges for the development of health care in the Republic of Croatia today and in the future based on the research conducted.

Given the abovementioned challenges, as well as the consequences of the current financial crisis for the Republic of Croatia and its reduced budgetary funds, the Ministry of Health has initiated reforms. It has undertaken to develop national classification and consolidate tender procurement procedures for the most expensive medicinal products and implantable devices used in hospitals. In addition, it has undertaken to consolidate hospital procurement procedures for electricity, postal services, and consumables. The following is also planned: to restructure and rationalise acute hospital capacities; to rationalise non-health activities of hospitals through outsourcing and spin-off; to restrict the consumption of prescription medicines (despite the expected increase in the volume of prescription drugs) through additional reduc-

TABLE 3  
CHALLENGES FOR HEALTH CARE DEVELOPMENT IN THE REPUBLIC OF CROATIA

	2011	2030
1. Functioning of health care	<ul style="list-style-type: none"> <li>• unevenness and differences in the availability of health services</li> <li>• financial unviability</li> </ul>	<ul style="list-style-type: none"> <li>• unevenness and differences in the availability of health services</li> <li>• financial unviability</li> <li>• positive changes: <ul style="list-style-type: none"> <li>• optimum number of health care institutions</li> <li>• better organisation and increased efficiency</li> <li>• less corruption</li> </ul> </li> </ul>
2. Health care personnel	<ul style="list-style-type: none"> <li>• problems with salaries and migrations</li> <li>• inadequate health management</li> <li>• shortage of health workers</li> </ul>	<ul style="list-style-type: none"> <li>• problems with salaries and migrations</li> <li>• inadequate health management</li> <li>• shortage of health workers</li> <li>• positive changes: <ul style="list-style-type: none"> <li>• broader education of primary health care workers</li> </ul> </li> </ul>
3. External factors	<ul style="list-style-type: none"> <li>• ageing population</li> <li>• bad living habits</li> <li>• an increase in chronic diseases</li> </ul>	<ul style="list-style-type: none"> <li>• ageing population</li> <li>• bad living habits</li> <li>• an increase in chronic diseases</li> <li>• occurrence of new diseases</li> </ul>



tions in unit prices; to stimulate development of private health insurances that will take over a part of demand for health care; to stimulate strategic allocation of resources to align health resources and health requirements; and to invest more in prevention.

There are several key contextual factors that have either stimulated or restricted the potential of Croatian health care reforms and their implementation: particularities of the inherited system, fiscal shock related to the previous transition period, changes in relative prices due to the process of integration into the world economy, seriousness of economic collapse in the early transitional period, and changes in the political context. Besides the challenges for Croatian health care in terms of financial viability, it is important to take account of the ageing of Croatian population, reduced number of active labour, and the need to keep up with the pace of modern technological achievements. Five years of war (from 1991 to 1995) incurred damages in the amount of approximately 37.116.679 USD. Around 20.000 people were either killed or reported missing, and more than 30.000 people ended up with some type of disability. By the end of 1991, around 11.5% of people lived in partially or entirely occupied areas. There was a significant inflow of refugees from Bosnia and Herzegovina and between 1992 and 1998 the number of refugees and displaced persons was between 430.000 and 700.000<sup>6</sup>. In addition, a high rate of unemployment and demographic transition were an additional burden for the health care sector. Inadequate infrastructure, outdated technology, inefficient management, underexploited personnel and resources contributed to imbalances and inefficiencies in health care and high costs of the system.

All of this has brought about a need to undertake reforms in health, and these have been underway for a number of years. Their aim is to create an efficient, accessible, quality and equitable system for all citizens. The reform of 1990 centralised the existing decentralised system of collection of funds and separated the previously unified regional systems of governance of health service providers from the collection of compulsory health insurance funds. The Health Act and Health Insurance Act of 1993 announced health reforms in the following period. Availability, continuity of care, inclusion, and comprehensiveness were the fundamental principles of the initiated reform. Decentralisation was set as an objective. Afterwards, in 2000, a new strategy was adopted, as well as a plan for reforming health and health insurance in the Republic of Croatia. Two main goals were set: fixing financial problems of health care and reorganising the system. The Health Insurance Act, which came into force on 1 January 2001, reduced the scope of free of charge health services and introduced additional health insurance. Given the problems of the functioning of health care and citizens' dissatisfaction, the new strategy for health development of 2006 attempted to develop a more complete vision of health, but also to solve the existing financial problems. The last health reform was initiated in 2008.

However, even after these reforms, there are still inefficiencies in terms of too high a number of health institutions that generate deficit and in which there is a shortage of professional managing staff, inadequate system of hospital care financing, and inappropriate organisation and financing of primary health care. Health care spending and public expenses for health are still too high and it is expected that the ageing of population and various health risks will additionally increase the burden of public finances. Imbalances in the system of financing of health care spending have been recorded, as there is a high share of state health insurance and a comparably small part of budgetary funds allocated to health. The share of private insurance companies that participate in the financing of health care costs is rather small. The problem of informal payments in health is yet another example of challenges Croatian health care is faced with and it is necessary to find a consistent set of measures to solve this problem. In accordance with all this, it is necessary to develop a health strategy that will be based on comprehensive and quality activities of research and development of health sector and their results and that will offer solutions to long-term financial problems and organisational challenges for Croatian health care.

## Conclusion

There are numerous challenges for the development of health care systems today: from an ageing population and a consequential growth of demand for health services, low fertility rates, reduced number of active insured persons, growth of chronic diseases, growth of health care service provision in a situation of less available funds due to financial crisis, the need to pursue technological innovation and achievements, investment in research and development, the need for the quality of services provided to increase, possibilities of labour migrations, patient mobility, the potential for developing health tourism, to the implications of the EU accession in case of Croatia, which will affect health care irrespective of the fact that health care systems are autonomous areas of each member state of this regional economic integration. When defining its direction of development, Croatia must take account of the EU guidelines and decisions listed in the main health strategic documents. When Croatia joins the EU, it will face new rules and priorities in line with the current European health strategy, the possibilities for drawing funds from European cohesion funds, labour migrations, and new guidelines on patient safety and mobility. When assessing the need to align national and European Union regulations in the area of health, Croatian health care can be evaluated as ready to enter the EU.

The research conducted revealed modern challenges and perspectives for the growth of health care system in the Republic of Croatia. The analysis of key challenges and health care development in Croatia was divided into three parts: (1) functioning of health care, (2) health personnel, and (3) external factors. Inefficiency, financial

unviability, poor infrastructure, and the lack of transparency of the system proved to be the key problems related to the functioning of Croatian health care. Furthermore, the results of research showed that there is a problem of salaries and migrations of health personnel in Croatia, as well as the problem of poor governance in health, and of a general shortage of health workers. Specific external factors were identified and these represent a problem for the functioning of health care. The most significant ones are: ageing population, bad living habits, inappropriate legislation, poor education of people on health, and the

impact of politics. In 2030, it is expected that there will be some improvements in terms of creating the possibilities for pursuing new methods of treatments, but there will also be problems of harmonisation with European health standards.

The guidelines for responding to challenges and problems identified in this research are a backbone of a future strategy for Croatian health care development. Long-term vision, strategy, policies, and a regulatory framework are all necessary preconditions for an efficient health care system and for providing quality health services.

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## IZAZOVI RAZVOJA ZDRAVSTVENOG SUSTAVA REPUBLIKE HRVATSKE

### SAŽETAK

Temeljni cilj istraživanja provedenog u okviru ovog rada jest utvrditi ključne izazove i perspektive razvoja zdravstvenog sustava Republike Hrvatske u sljedeća dva desetljeća. Kao metoda istraživanja korišten je polustrukturirani intervju s 49 ispitanika, predstavnika zdravstvenih profesionalaca iz javnog i privatnog sektora, zdravstvenih osiguravajućih tvrtki, farmaceutskih tvrtki i veletrgovlja te nevladinih udruga, odnosno udruga pacijenata. Rezultati istraživanja pokazali su da se ključni izazovi i problemi zdravstvenog sustava Republike Hrvatske mogu segmentirati u tri grupe: funkcioniranje zdravstvenih sustava, zdravstveno osoblje i vanjski čimbenici. Istraživanje je pokazalo da su ključni izazovi vezani uz funkcioniranje zdravstvenog sustava neučinkovitost, financijska neodrživost, neadekvatna infrastruktura i netransparentnost sustava. Loše upravljanje još je jedan ograničavajući čimbenik. Što se zdravstvenog osoblja tiče, ističu se problemi malih plaća i posljedično tome, izazovi migracija te potencijalni nedostatak zdravstvenog osoblja. Od ostalih vanjskih čimbenika koji predstavljaju najznačajnije izazove ističu se starenje stanovništva, loše ži-

votne navike te porast broja kroničnih bolesti, ali i problemi prouzrokovani globalnom financijskom krizom te posljedničnom makroekonomskom situacijom. Smjernice za rješavanje izazova identificiranih ovim istraživanjem predstavljaju nužnu okosnicu strategije razvoja zdravstvenog sustava Republike Hrvatske. Dugoročna vizija, strategija, politike i regulacijski okvir nužne su pretpostavke efikasnog djelovanja zdravstvenog sustava i pružanja kvalitetnih zdravstvenih usluga.