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RAZISKAVA DELOVANJA ZDRAVSTVENIH SISTEMOV V SLOVENIJI TER IZBRANIH TRGIH JUGOVZHODNE EVROPE

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TABLE OF ABBREVIATIONS

CHI - Complementary Health Insurance
CHIF - Croatian Health Insurance Fund
DRG payments - Diagnosis related group payments
EU - European Union
FURS - Finančna uprava Republike Slovenije
GDP - Gross domestic product
HC - Health Care
HCI - Health Consumer Index
HI - Health Insurance
HIIS - Health Insurance Institute of Slovenia
HRK - Hrvatska kuna
HSB - Health Care Basket
HZZO - Hrvatski zavod za zdravstveno osiguranje
MHI - Mandatory Health Insurance
NCDs - non-communicable diseases
OECD - Organization for Economic Cooperation and Development
OZ - Obligacijski zakonik
RHIF - Republic Health Insurance Fund
VHI - Voluntary Health Insurance
WHO - World Health Organization
ZGJS - Zakon o gospodarskih javnih službah
ZPacP - Zakon o pacientovih pravicah
ZPIZ - Zavod za pokojninsko in invalidsko zavarovanje Slovenije
ZPSV - Zakon o prispevkih za socialno zavarovanje
ZZavar - Zakon o zavarovalništvu
Zzvzz - Zakon o Zdravstvenem Varstvu in Zdravstvenem Zavarovanju
ZZ - Zakon o zavodih
ZZZS - Zavod za Zdravstveno Zavarovanje Slovenije

TABLE OF CONTENT

INTRODUCTION

This project aims to assess the key determinants and define, as well as extensively describe, all relevant stakeholders that together form the health-care system. The focus of the project will be on transitional economies of central and southeast Europe; Slovenia, Croatia, Bosnia and Herzegovina and Serbia. It cannot be denied that all of the listed economies face some form of problems connected with the system, whether structural, financial or both. The objective is to discuss the current situation in each respective economy and to find suitable and sustainable possibilities for the future.

Countries included in the research have the common denominator, that they lack solutions for the long-term sustainability of the systems and will eventually have to implement some form of structural reforms, either to comply with the EU single market legislation or to achieve sustainable financing of the health-care system and adequate health-care services. Moreover, such processes often open potential market opportunities.

With health-care system, being a behemoth it is primarily important to define it for the purposes of the research.

There is no unified definition of a health-care system, nevertheless the key components of a well-functioning health care system are leadership and governance, health information systems with good information on health challenges, health financing as a key policy instrument, well performing workforce - human resources, quality of medical products and technologies and effective service delivery.[1]

These broad guidelines are not sufficient, so the World Health Organization (WHO) further defines the health system as »a system that consists of all organizations, people and actions whose primary intent is to promote, restore or maintain health. «[2] With such definition still being all encompassing, for the purposes of the research health-care system will be understood as comprising of three sub-systems: the health sector[3], health insurance organizations and health legislation.

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[1] Key components of a Health Care system - http://www.who.int/healthsystems/EN_HSSkeycomponents.pdf?ua=1 on 12.4.2015

[2] STRENGTHNENING HEALTH SYSTEMS TO IMPROVE HEALTH OUTCOMES http://www.who.int/healthsystems/strategy/everybodys_business.pdf on 11.4.2015

[3] Health sector defined by the Slovenian Ministry of health are “all natural and legal persons that conduct health services whether private or public and the administrative bureaus of the state in the area of health care.

Pursuant to that, the focus will not be on direct health improving activities such as intra-sectorial action and cooperation, behaviour change programs or disease prevention. On the legislative part, we limit ourselves on health legislation; so occupational legislation and safety legislation will not be discussed. In the scope of this, benefit payments such as funeral costs, death grants and tributes (compensation) for the leave of absence are not a part of the research.

We acknowledge the fact that cross-border health care is an important and highly relevant aspect of health care. Although the possibilities and advantages of cross border health care will not be comprehensively discussed and presented, we will elaborate on it especially in the light of potential market opportunities.

SLOVENIA

1. HYPOTESIS

1. There are several issues hampering the functioning of Slovenian Health Care System
    - Unsustainability
    - Inefficiency
    - Rigidness
2. There are five possible scenarios for the future.
3. The most appropriate solution is the division of the current Health care basket in to two separate HSBs, one covered by the Compulsory HI, the other covered by Additional HI.

2. GENERAL OVERVIEW

Since 1992, Slovenia has had a Bismarckian type of a social insurance system, which serves as predominant model for health care systems in Europe. The Health Care and Health Insurance Act of 1992[4] (hereinafter ZZVZZ) introduced the legal basis for the current system and laid the foundations for the establishment of both; a centralized compulsory health insurance system, administrated by the Health Insurance Institute of Slovenia (ZZZS hereinafter HIIS)[5], and for the voluntary health insurance system, implemented by insurance companies. [6] The system of health insurance is therefore divided into *compulsory health insurance*, *voluntary complementary insurance* for additional coverage of medical services not fully covered by compulsory health insurance, and *voluntary additional insurance* for services that are not a constituent part of compulsory insurance, enabling a higher standard of service.

The compulsory health insurance covers all population with a permanent residence in Slovenia based either on employment status or on legally defined dependency status. The advantage of Slovenian mandatory health insurance is that virtually the entire population is covered under the sole compulsory insurance scheme. As a part of compulsory health insurance, the insured person is guaranteed, to the extent defined by statute, the right to health care services and the right to financial compensation (compensation of lost salary during temporary absence of work, reimbursement of travel expenses related to implementation of health care services). The right to healthcare services comprises services at the primary level, including dentistry, health care services in certain types of social institutions, specialist outpatient services, hospital and tertiary level services.

[4] Zakon o zdravstvenem varstvu in zdravstvenem zavarovanju
[5] Zavod za zdravstveno zavarovanje Slovenije
[6] Adriatic Slovenica d.d., Triglav zdravstvena zavarovalnica d.d. and Vzajemna zdravstvena zavarovalnica d.v.z.

It also includes the right to health resort treatment, rehabilitation treatment, transport by ambulance and other vehicles, medicine and technical aids. It does not, however, ensure coverage of all costs that arise from the treatment, consequently the majority of the population (95%) is included in a voluntary complementary health insurance, which covers the difference in the full value of health services and is provided by insurance companies. The problem of the latter is, however, that the premium is the same for everyone, regardless of their financial status. Health care in Slovenia is provided through public health service network, which also includes private service providers based on concession. All administrative and regulatory functions of the system take place at the national level; the responsibility of local communities is mostly limited to executive duties that were previously assigned to them from a central level. In general, all the primary level activities are organised on a local level so that they are equally accessible to all people. Local governments are also responsible for granting concession to private health care providers who wish to work within the publicly operated primary health care system.

The HIIS is the sole organization responsible for providing compulsory health insurance. Its principal task is to provide effective collection and distribution of public funds. Slovenian social security schemes are financed by social security contributions from insured persons and employers. The employer upon payment of month salary pays social security contributions as a withholding tax. Self-employed persons must make their own social security contributions. Charging compulsory social security contributions as well as keeping records of these contributions falls within the competence of the Financial Administration of the Republic of Slovenia (hereinafter FURS). [7]

Besides social security contributions for compulsory health insurance Slovenia's health system is also funded by compulsory state revenues (general taxation), voluntary health insurance premiums and out of pocket spending.

With regard to the access to health care, the insured person can freely choose a personal physician, often also referred to as 'gatekeepers'. A specialist can be accessed only after the referral from a general practitioner was made.

However, persons insured by compulsory health insurance system, can only visit public health care institutions and HIIS-contracted doctors, without having to pay for the services. In case individuals seek health care in private institutions, they are entitled to do so but such services are payable.

Parallel to afore mentioned insurances (compulsory health insurance and voluntary complementary insurance which are defined by statute), persons can also insure themselves through voluntary additional insurance, offered by private insurance companies.

3. STATISTICAL OVERVIEW

Social security contributions are the main source of financing of the Slovenian health care system and therefore present the focus of our analysis. We must, however, also analyse income tax, due to its strong correlation with the aforementioned security contribution,

[7] Finančna Uprava Republike Slovenije

since they both share the same tax base – one's gross income. In order to understand the overall economic situation in Slovenia, one must first look at the relevant general statistics[8].

The data listed below is from the year 2012.

Population: 2057159
GDP per capita: 17.506€
Unemployment rate: 8, 8%
Inflation: 2, 6%
Average salary (gross): 1525, 47€

While comparing different taxes one has to take into consideration that different countries have different systems of social security. It is therefore necessary to compare Slovenia with similar countries concerning financing the health-care system. We are comparing Slovenia to Austria, as an example of a country with the Bismarck model of social insurance, as well as to the EU-27 average. In table 3, we added Croatia to compare social security contribution rates of employers and employees.

Table 1 shows the comparison of income tax between selected countries. The value represents income tax as a percentage of gross national income.

Table 1: Income tax in GDP (%)

				Change 1995-2011		Rank
	1995	2000	2011	2011	2000-2011	
Austria	9,3	10,0	9,7	0,5	-0,3	7
Slovenia	5,8	5,6	5,6	-0,3	0,0	17
EU-27	9,2	9,8	9,1	-0,1	-0,7	

Source: European Commission, 2013

Besides income tax, we also have to acknowledge social security contributions. Table 2 shows the comparison of social security contribution between selected countries. The same as in table 1, the value represents social security contribution as a percentage of gross national income.

[8] Based on data extracted from Statistical Office of the Republic of Slovenia (Statistični urad RS)

Table 2: Social security contribution in GDP (%)

				Change		Rank
	1995	2000	2011	1995-2011	2000-2011	
Slovenia	16,7	14,2	15,0	-1,7	0,8	4
Austria	14,9	14,7	14,6	-0,3	-0,2	6
EU-27	13,7	12,7	12,7	-1,1	0,0	

Source: European Commission, 2013[9]

The table above shows how much social security contributions we pay in relation to our gross national income. The table below represents how much did employers and employees pay in 2012 as a percentage of an average gross annual income. Analysis shows that employees in Slovenia pay the biggest percentage of their income in comparison to the other EU-27 countries.

Table 3: Social security contribution as a percentage of an average gross annual income in 2012 (%)

Country	Employees	Employers	Together	Rank
Austria	18,1	29,2	47,3	2
Slovenia	22,1 (1*)	16,1 (17*)	38,2	11
EU-27	9,8	17,2	27	
Croatia	20,0	15,2	35,2	

**The number in brackets is the country's rank among the EU-27 countries.*

Source: European Commission 2014[10]

3.1 HEALTH CARE STATISTICS

While further analysing relevant statistic data, we tried to form a detailed health profile for each respective country. In this section, we are going to present Slovenian health profile. The data is from the year 2012 (unless stated otherwise), which is the most recent data available. We focused on different health related statistics as well as general statistics, which are in some way correlated with the country's current health system and its financing.

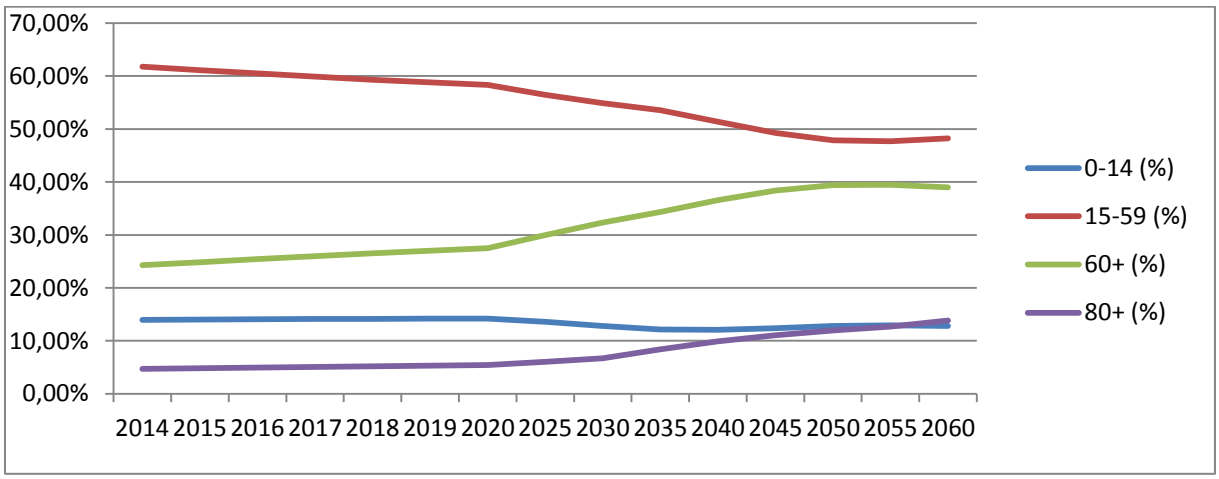
[9] Eurostat, http://ec.europa.eu/eurostat/web/employment-and-social-policy/social-protection-and-inclusion/health-long-term-care on 16.4.2015

[10] Eurostat, http://ec.europa.eu/eurostat/web/health/health-care on 16.4.2015

Graph 1: The projected age pyramid of Slovenia in 2060

First, we look at the population projections data. The biggest problem is the projected number of people older than 80 in the year 2060 as seen from the graph above. Currently there are 96.007 people over 80 years old in Slovenia, which makes up for four, 68% of the Slovenian population. By the year 2060 this number is supposed to grow to 246.372 which will account for 13, 85% of the Slovenian population. Furthermore, the number of people older than 60 years will also grow to approximately 24, 28% to 39%. The problem occurs because the population of people younger than 14 and people aged 15-59 will both decrease by 1, 18% and 13, 54% respectively.

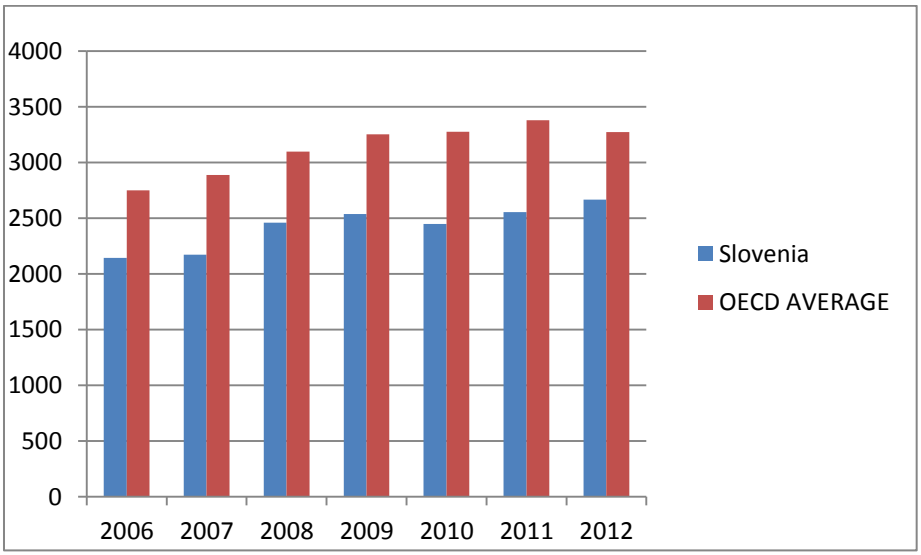
Graph 2 : Population projections by age group



Source: Statistical Office of the Republic of Slovenia[11]

Probably the most important health related statistic is the health expenditure per capita. In the graph below, we compare health expenditure per capita in Slovenia to the average of 34 countries included in OECD. CAGR 06-12(OECD average) = 2,94%; CAGR 06-12(Slovenia) = 3, 70%

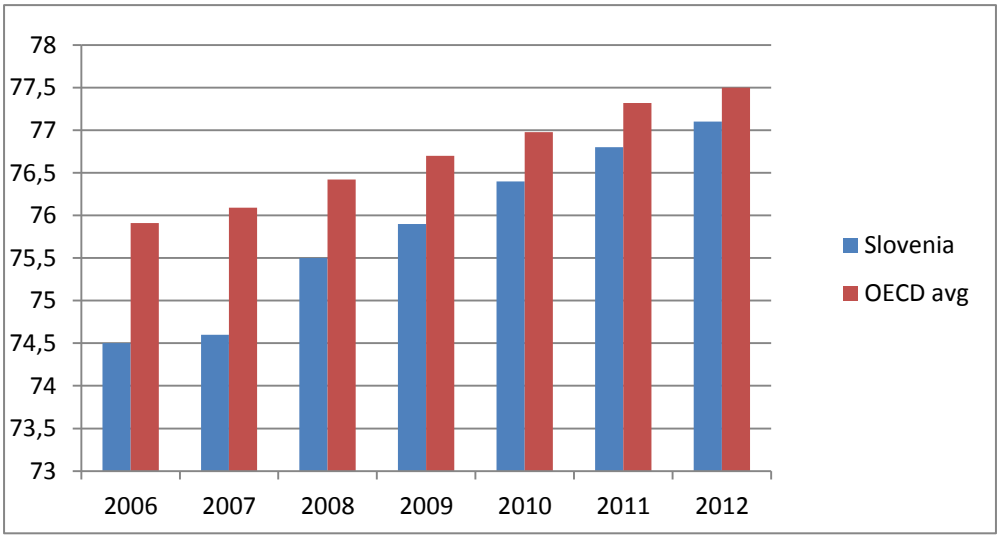
Graph 3: Total health expenditure per capita, US$ PPP



Source: OECD Health statistics 2014

Table 7 shows the life expectancy at birth for male population, whereas table 8 shows the same statistics for female population. Note that the differences in life expectancy for males between Slovenia and OECD average grow smaller every year, which shows that the quality of life in Slovenia is improving on a yearly basis.

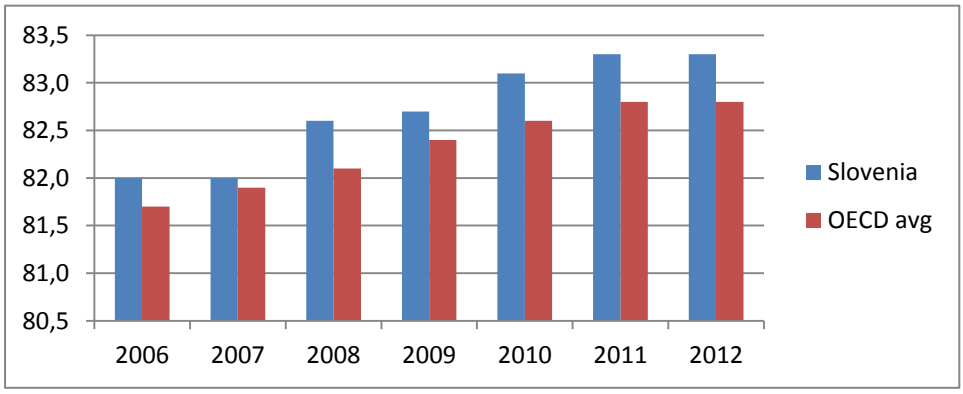
Graph 4: Life expectancy at birth for male population



[11] Statistični urad RS, http://www.stat.si/StatWeb/pregled-podrocja?id=17&headerbar=15 on 13.4.2015

Source: OECD Health statistics 2014

Graph 5: life expectancy at birth for female population



Source: OECD Health Statistics 2014

3.1.2. KEY FACTS REGARDING THE HEALTH PROFILE OF SLOVENIA[12]

Life expectancy at birth: ♀ 83, 3 ♂ 77, 1

Adult mortality rate: ♀ 60, ♂ 140

Infant mortality rate (deaths per 1000 live births): 1, 6

Doctor consultations (per capita): 6,3

Death due to HIV (per 100 000 population): 0,1

Prevalence of tuberculosis (per 100 000 population): 11

All cancers incidence rate (per 100 000 population): 296,3

4. SLOVENIAN HEALTH CARE SYSTEM

4.1. LEGISLATION OVERVIEW

Insurance has a great effect on society by way of changing those who bear the cost of losses and damage, even more when it is obligatory to participate in it. Therefore, it is crucial for the legislator to provide a detailed and financially balanced comprehensive legislation to secure the rights of insured persons and insurance carriers.

As mentioned in the introduction, in Slovenia the insurance market is divided into compulsory insurance system and voluntary complementary and additional insurance system. Consequently, this results in division of the regulation.

The compulsory system is regulated via several acts, implementing regulations and secondary legislative acts. Safeguarding the elementary rights of the insured persons, the Health Care and Health Insurance Act (ZZVZZ) is the most relevant and important act. The Act on Social Security Contributions [13](ZPSV) is equally important, as it regulates the corresponding obligation of the insured person to pay the insurance contribution. As the compulsory insurance system is carried by the HIIS - a public institute, whose scheme, activities and procedures are regulated by the Act on Public Utilities[14] (ZGJS) and the Act on Institutions[15] (ZZ), these two acts are also relevant.

[12] Statistični urad RS, http://www.stat.si/StatWeb/pregled-podrocja?id=117&headerbar=8 on 10.4.2015

[13] Zakon o prispevkih za socialno varnost (Uradni list RS, št. 5/96, 18/96 – ZDavP, 34/96, 87/97 – ZDavP-A, 3/98, 7/98 – odl. US, 106/99 – ZPIZ-1, 81/00 – ZPSV-C, 97/01 – ZSDP, 97/01, 62/10 – odl. US, 40/12 – ZUJF, 96/12 – ZPIZ-2, 91/13 – ZZVZZ-M, 99/13 – ZSVarPre-C in 26/14 – ZSDP-1)

[14] Zakon o gospodarskih javnih službah (Uradni list RS, št. 32/93, 30/98 – ZZLPPO, 127/06 – ZJZP, 38/10 – ZUKN in 57/11 – ORZGJS40)

[15] Zakon o zavodih (Uradni list RS, št. 12/91, 8/96, 36/00 – ZPDZC in 127/06 – ZJZP)

On the other hand, private insurance companies whose scheme and operations are comprehensively regulated by the Insurance Act[16] (ZZavar) carry the voluntary additional insurances. Since the voluntary insurance is not constituted *ex lege*[17], but by consent of two parties, the relation is regulated by the Code of Obligations[18] (OZ). Despite their voluntary nature, the legislator meticulously regulates the insurance contracts to prevent fraud by either party.

4.2. INSURED PERSONS

Health insurance in Slovenia is compulsory for all persons that meet the conditions laid out in the ZZVZZ regardless the amount of their income. According to this act, there are two categories of insured persons; the insured and their family members. Compulsory health insurance is mandatory for all citizens with permanent residence in Slovenia, whereby everyone is bound to pay contributions under the solidarity principle. One of the special features and advantages of Slovenian health care insurance system is its unity. It is open to a wide range of categories of individuals that do not have any legislative option to be excluded or exempted from the system. The system reflects the vertical solidarity[19] as well as the horizontal solidarity[20].

The compulsory insured persons as laid down by the ZZVZZ are insured automatically when the factual situation as described in the act is fulfilled; the insurance contract need not be concluded.

4.3. SYSTEM ADMINISTRATION

The HIIS conducts its business as a public institute, bound by statute to provide compulsory health insurance. Compulsory health insurance is a right as well as an obligation for the insured person. Application for the insurance is usually conducted by the subject that is legally obliged to file such application. In most cases, that subject is employer or in cases of those, entitled to social welfare funds, the holder of public authorization that recognized such right.

HIISs principal task is to provide effective distribution of public funds, in order to ensure the insured persons quality rights arising from the said funds. The benefits basket arising from compulsory health insurance comprises the rights to health care services (primary,

[16] Zakon o zavarovalništvu (Uradni list RS, št. 99/10 – uradno prečiščeno besedilo, 90/12, 56/13 in 63/13 – ZS-K)
[17] by virtue of the law
[18] Obligacijski zakonik (Uradni list RS, št. 97/07 – uradno prečiščeno besedilo)
[19] It includes all the individuals regardless their income or receiving social aids.
[20] It includes the self-employed workers, civil servants as well as the family members of the insured.

secondary and tertiary health care services, pharmaceutical drugs and medical equipment) and rights to several financial benefits.

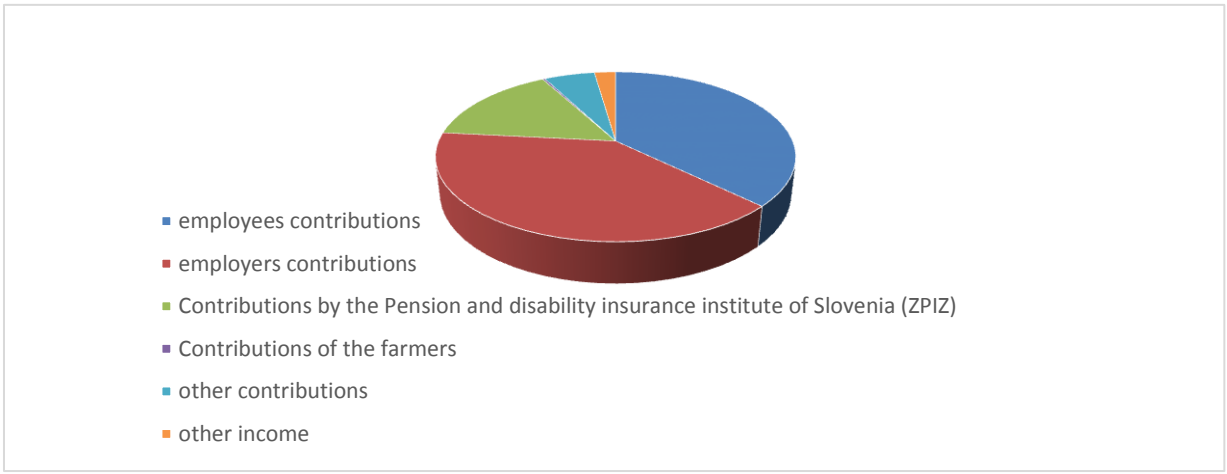
The ZZVZZ[21] defines the scope of aforementioned rights. Rights are defined as percentage of the value of the medical service. Some of the services are fully financed by the obligatory insurance and some as a percentage of the value of the medical service. In such cases, additional payments are required (difference between the value covered by insurance and the value of the service) by either out of pocket payments or by complementary insurance. The percentage of the value of the services that are covered to some extent by the compulsory health insurance is also defined by the ZZVZZ. The health services basket (HSB) that is covered by the compulsory health insurance is relatively broad, but right to full coverage of the medical services is limited. Pursuant to that, the vast majority of the population is also insured via complementary health insurance. [22]Medical services that are covered in full are services rendered to certain (endangered) groups of population (such as children and pregnant women, students, persons with disabilities and special types of medical services (work injuries and illnesses, treatment and rehabilitation connected with most harmful and serious medical conditions). Because of the shortage of public funds due to rise in health-care prices as well as the demographic changes, the HSB has diminished in recent years. This has resulted in two types of surcharges. Horizontal type of surcharges defined by the percentage of the value of the service that is not covered by the compulsory health insurance and vertical surcharges that result in some less important medical services being excluded from the basic HSB. Horizontal surcharges vary from 5 to 95 percent of the value of the service, the universality of the HSB it therefore achieved only *de iure* when large parts of the medical services are *de facto* covered by the complementary health insurance. The redefinition of the HSB is seen as an important part of the potential health-care system reforms.

In terms of financing, HIIS receives funds from the FURS and further distributes it to the entitled institutions and individuals. In 2014, the HIIS received 2.367,8 million EUR, which in accordance with the outcome of 2.346,9 million EUR resulted in a surplus in amount of 20,9 million EUR. Year 2014 was the only of the last six years in which budgetary surplus was achieved.

[21] Zakon o zdravstvenem varstvu in zdravstvenem zavarovanju (Uradni list RS, št. 72/06 – uradno prečiščeno besedilo, 114/06 – ZUTPG, 91/07, 76/08, 62/10 – ZUPJS, 87/11, 40/12 – ZUJF, 21/13 – ZUTD-A, 91/13, 99/13 – ZUPJS-C, 99/13 – ZSVarPre-C, 111/13 – ZMEPIZ

[22] Approximately 90% of population

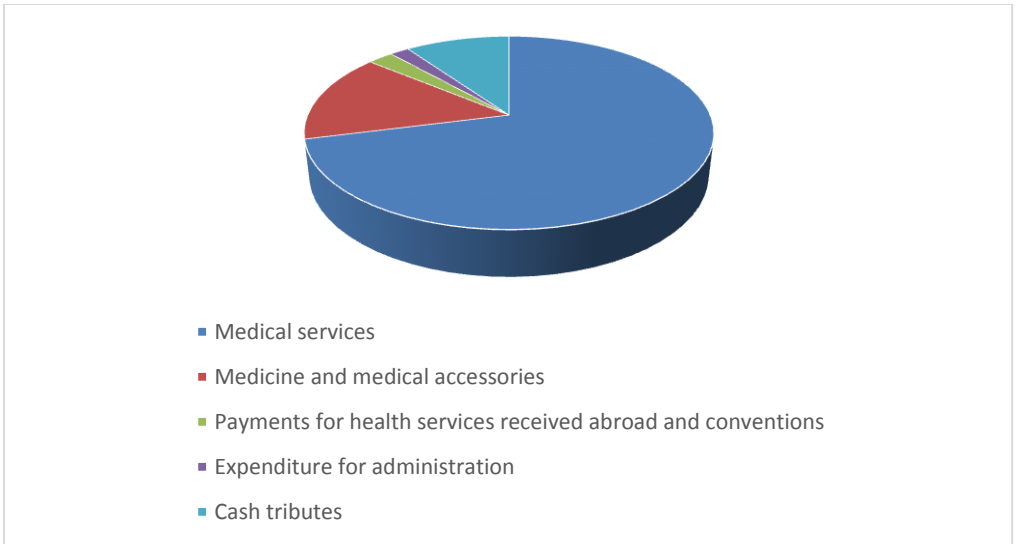
Graph 6: Financing of the HIIS by the categories of persons liable for the payments for the compulsory health insurance and other income.



Source: Poslovno poročilo ZZZS 2014

It is evident that the main part of the contributions is split between the employers and the employees which contribute 39,43 % and 37,21 % of the funds respectively, followed by contributions by Pension and Disability insurance institute of Slovenia[23] (ZPIZ) which contributes 15,41 % of the overall HIIS funds. Looking at the demographic structure of the population and the health care expenditure distribution by age groups the contribution structure extensively burdens the active population and less those in need of relatively more health care services.

Graph 7: HIIS Expenditure in 2014



[23] Poslovno poročilo za 2014, Zavod za zdravstveno zavarovanje Slovenije, http://www.zzzs.si/zzzs/info/egradiva.nsf/0/9b52139ed62405f7c1257dfd00573af8/$FILE/Poslovno%20poročilo%20ZZZS%20za%20leto%202014_april%202015.pdf, on 14.4.2015

The main source of outcome is medical services, which surmount to 70,9 % of the overall expenditure. Second and third biggest sources are medicine and medical resources and cash tributes with 14,9 % and 9,8 % respectively.

The 2014 surplus was mainly a result measures for short-term financial restructuring, which consisted of changes in contribution bases and levels, the exclusion of the right to death grants and funeral costs from the scope of the compulsory health insurance and by lowering the expenses for medication. [24]

Table 4: measures that contributed in budgetary surplus in 2014.

Measure	**Savings (million EUR)**
Changes in contribution bases and levels	30,0
Exclusion of death grants and funeral costs	8,5
Lowering medication expenditure	10,0
Total	48,5

Source: Poslovno poročilo ZZZS 2014

In the longer term, HIIS carried out massive reform programme as a part of the 2009-2014 financial restructuring in scope of Strategic development programme of the HIIS, which resulted in overall surplus estimated at approximately 580 million EUR.[25] The measures included lowering the prices of health programmes and services, lower levels of coverage of the services by the compulsory health insurance, in general, more burden sharing with the complementary health insurance. Nevertheless, with worsening of the macroeconomic determinants, HIIS will be in need of more short and medium term measures to insure solvency such as those used in 2014.[26]

4.4. FINANCING

Financing the health care system means collecting and dividing assets among all levels of health care services. The system of financing the health care is extremely important in order for efficient implementation of both health programs and quality of services.

In this section we will take a closer look at how the Slovenian health care system is financed.

[24] Data extracted from HIIS annual report 2014, http://www.zzzs.si/zzzs/info/egradiva.nsf/0/9b52139ed62405f7c1257dfd00573af8/$FILE/Poslovno%20poročilo%20ZZZS%20za%20leto%202014_april%202015.pdf, on 14.4.2015.

[25] HIIT annual report 2014, http://www.zzzs.si/zzzs/info/egradiva.nsf/0/9b52139ed62405f7c1257dfd00573af8/$FILE/Poslovno%20poročilo%20ZZZS%20za%20leto%202014_april%202015.pdf, on 14.4.2015.

[26] Table 8

4.4.1. PUBLIC FUNDS

Public funds are represented by the revenues generated by the FURS. The main source of these funds are social security contributions payable by employees and employers. The amount of contributions given by the employers and employees is based on their monthly income. The percentage of their gross salaries given to the FURS is determined annually by the National Assembly.

As already, mentioned employers finance the health system through social security contribution, which means that every month 16.10% of their employees' gross salary is given to the FURS. However, out of 16.10% only 6.56% is contributed towards financing the health care system.

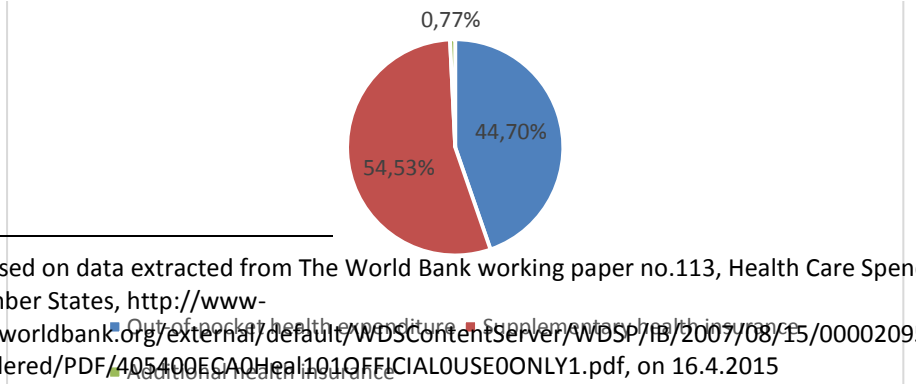
The same as employers, the employees also contribute a certain percentage of their monthly income. Compared to employers their contribution is slightly higher – 22.10%. However, the percentage intended for funding the health care is lower - 6.36%.

4.4.2. PRIVATE FUNDS

Private financing of the health system is composed of mainly voluntary insurance of citizens and citizens that make direct payments for treatment (self-paying). Voluntary insurance in the vast majority consists of complementary health insurance. The other part of voluntary insurance consists of various different additional insurance policies (dental, injury…).
44.7% of total private health care system expenditure consists of out-of-pocket expenditure[27]. 55.3% of total private health care expenditure consists mainly (approximately 95%) of payments for complementary health insurance, and only 5% for additional insurance policies[28].

The pie chart below shows the structure of private funding of health care system.

Graph 8: Private funding of health care system Slovenia



[27] Based on data extracted from The World Bank working paper no.113, Health Care Spending in the New EU Member States, http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2007/08/15/000020953_20070815113526/Rendered/PDF/405400ECA0Heal101OFFICIAL0USE0ONLY1.pdf, on 16.4.2015

[28] Based on data extracted from Statistical Insurance Bulletin 2014, Slovesnko zavarovalniško združenje, http://www.zav-zdruzenje.si/wp-content/uploads/2014/07/Statistical-Insurance-Bulletin-2014-ok.pdf on 14.4.2015

Source: Poslovno poročilo ZZZS 2014

4.4.3. COMPLEMENTARY HEALTH INSURANCE

Complementary health insurance is a voluntary health insurance. As compulsory health insurance does not cover all the medical services in full, nearly 95% of all the Slovenian residents are complementary insured, which means that horizontal surcharges are covered by the complementary insurance. Which services and to what amount will be covered by the compulsory health insurance is defined by ZZVZZ and the RCHI, so the insurance companies that carry out the activities connected with complementary insurance do not take part in those considerations. That results in arbitrary decisions by which public institutions dictate the terms of the complementary insurance but on the other hand complementary insurance enables privatization of gains connected with complementary insurance, which is against the law of the European Union.[29] In average, compulsory health insurance covers up to 70% of the value for most of health care services, the other 30% are covered by complementary health insurance and that is the main reason why almost all of the population is complementary health insured in order to avoid paying for medical services out of their pockets.

Complementary health insurance premium price depends on the insurance company, but all the prices are relatively similar. The premium is the same for all the residents, not depending on their age, income, gender or medical condition.

In 2013 a total amount of 481.950.474 € was paid in as premiums for complementary health insurance. Children and students under 26 years of age enrolled in education programs are excused of payments for complementary health insurance, same goes to those entitled to welfare funds under the condition that such persons ask for moratorium on payments for the complementary health insurance.

[29] C‑ 185/11 European Commision vs. Slovenia

Due to the fact that complementary health insurance represents a unique solution to the health-care system financing and the plan of the current Slovenian government is to abolish it because of its controversial nature – not being public or entirely private, the abolition would require a redefinition of the pillars of Slovenian health-care system.

4.5. HEALTH CARE SERVICE PROVIDERS

Health care in Slovenia is a public service provided through the public health service network. This network also includes, on an equal basis, private physicians and other private service providers based on concessions.

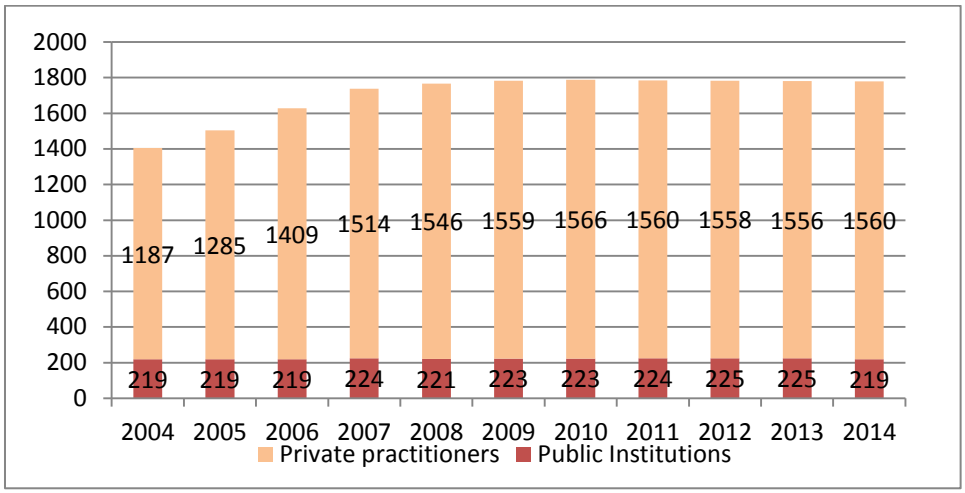
Insured persons are exercising their right to health care services with the providers that have concluded a contract with the HIIS. The basis for the conclusion of a contract between the HIIS and an individual health care service provider is an annual agreement between representatives of the health service providers (chambers, associations), Ministry of Health and the HIIS.

Negotiations between the partners result in a General agreement specifying national priorities in terms of health care, such as: total volume and cost of programmes, priority areas, capacities for providing health services, payment mechanisms, features for evaluation of services etc. [30] The general agreement and special agreements for different groups of health care providers are the key products of the first phase of the contracting process, which are subsequently used directly in the individual contracting process between the HIIS and each provider, to determine the financial content of the contract.

Each year the HIIS publishes a tender, containing programs and services, for contracting with health institutions, medical devices suppliers, private health workers and other subjects engaged in medical activities based on concession. Contracts between the Institute and previously mentioned entities are based on their bids for the implementation of programs and services determined by the tender. Special agreements between the HIIS and the provider further specify the individual rights and responsibilities of the contracting parties. In 2014, the HIIS had contracts with 1779 health service providers (219 public institutions and 1560 private providers).

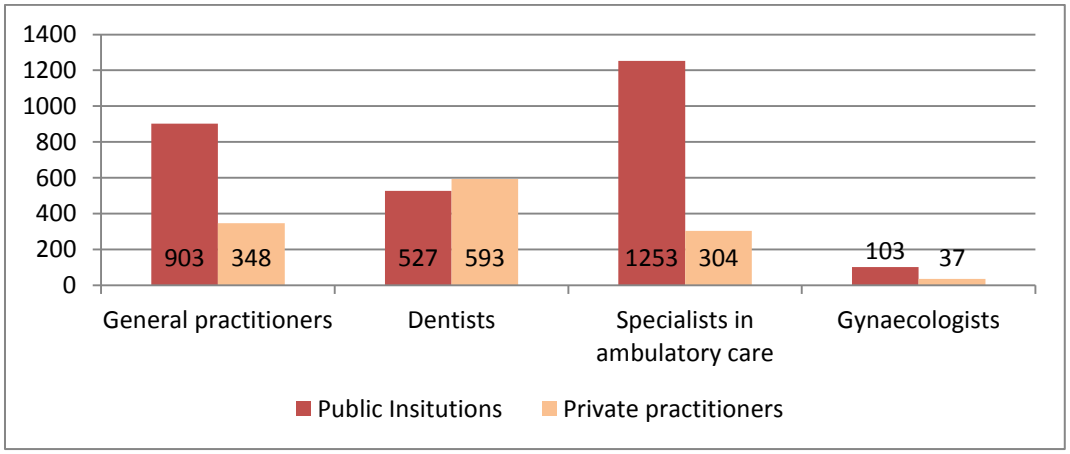
[30] Articles 63-68 of the ZZVZZ

Graph 9: Number of contracts between HIIS and public institutions and between HIIS and private practitioners



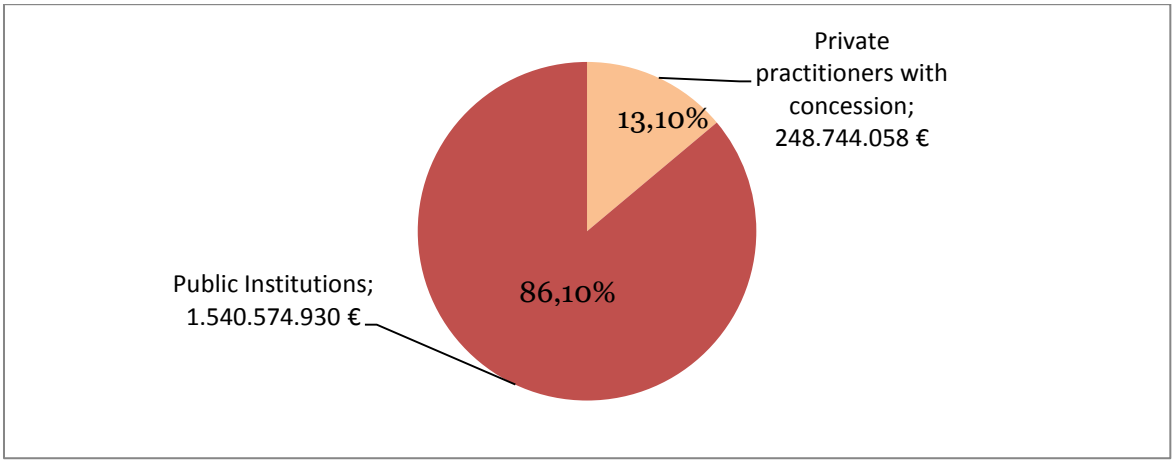
Source: Poslovno poročilo ZZZS 2014

Graph 10:: Number of doctors in Public Institutions in comparison with the number of private practitioners with concession



Source: Poslovno poročilo ZZZS 2014

Graph 11: Percentage of private practitioners with concession in financial resources for health care services in 2014



Source: Poslovno poročilo ZZZS 2014

Insured persons have the opportunity to freely choose a physician and health-care service provider (health-care institution), regardless of their place of residence. The personal physician is supposed to be the entrance point to the system (gatekeeper). He tracks the health status of his patients, as well as treating them and prescribing medicines, and maintaining files and records. He may certify up to 30 days leave of absence due to temporary incapacity to work. Where special treatment is needed, the "gatekeeper" function of the personal physician should be respected. The personal physician may refer the patient to a particular outpatient specialist or to hospital diagnostics and treatment. The physician may also advise the patient, which specialist or which institution he would recommend, but the patient ultimately makes the final decision as to which provider he chooses. The rights of a patient, procedures for exercising these rights in case of their violation, and obligations related to these rights are further specified in the Patient Rights Act[31] (ZPacP) (right to adequate, high-quality and safe health care, right to respect of patients' time, right to make independent decisions on medical treatment, right to reconsider a previously expressed will, right to second opinion, right to access medical files, right to privacy and personal data protection etc.).

[31] Zakon o pacientovih pravicah (Uradni list RS, št. 15/08)

5. CHALLENGES OF SLOVENIAN HEALTH CARE SYSTEM

Due to the limited capacities of the respective research, we are going to narrow our analysis to four major challenges that are occurring in the Slovenian health system.

1. The structure is financially unsustainable on the long run due to aging population and lack of young employed people
2. The system is inefficient (higher cost compared to foreign HC systems)
3. The system is not prone to changes and improvements as it remained largely unchanged for more than 20 years
4. Lack of funds is concealed by reducing the % of costs of the services covered by Compulsory HI and shifting it to Complementary HI (shift of costs)

5.1. AGEING POPULATION

Ageing population is seen as a major civilization achievement, but on the other hand, it burdens the health care systems especially in developed economies, where it is more present. The population is ageing fast, currently more than 11 % of the world population is aged over 60 years, and by 2050, this percentage is to increase to 22 %.[32] Better health systems are one of the main reasons for ageing of the population, and the issue will have to be tackled in the future, possibly through introducing more dynamic ways of financing of the health care systems.

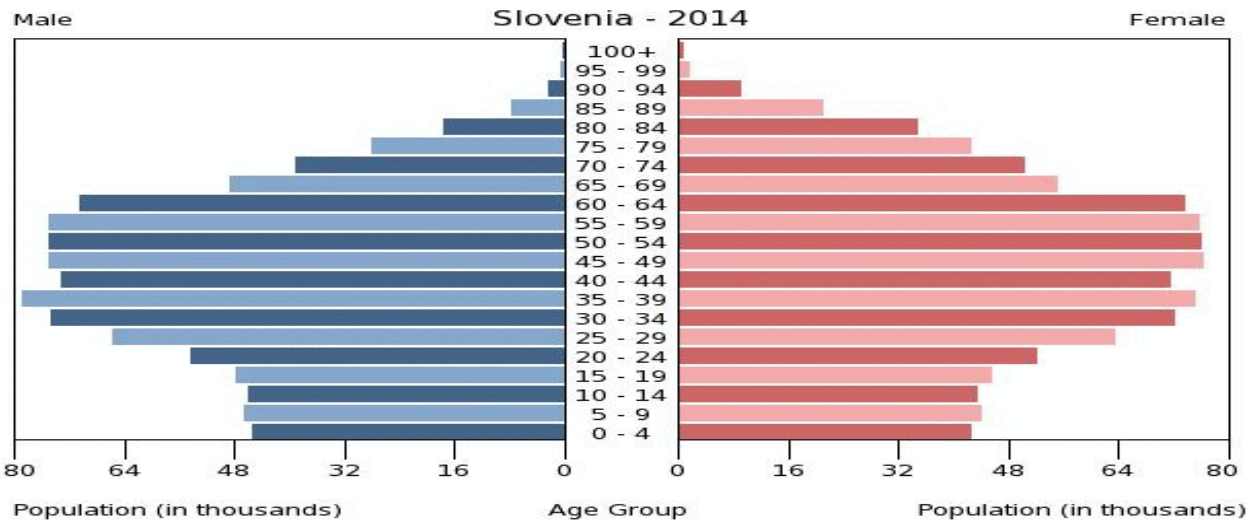
As it is clear, Slovenia is no exemption with regard to the ageing population. Pensioners (65+) contribute only 15% to the public HC budget (while presenting 35% of the insured persons), but create 50% of the expenses – making the system more and more expensive. [33] At the same time, the share of employed people, who contribute a lot, but cause minimal expenses, is decreasing.

As indicated in the current population pyramid below, ageing population will remain a pressing issue of the Slovenian health care system in the future. The same issue is also presented by the old age dependency ratio in the second table below which shows the number of persons aged 65 + in comparison to 100 working age population aged between 14 and 64 years of age. Results for Slovenia are even above the average of the European Union.

[32] State of the World Population 2014, United nations population fund, http://www.unfpa.org/swop on 16.4.2015

[33] OCENA DOLGOROČNE JAVNOFINANČNE BZDRŽNOSTI ZDRAVSTVENEGA SISTEMA IN MOŽNIH VIROV FINANCIRANJA, Inštitut za ekonomska raziskovanja, B. Majcen, M. Čok, Ljubljan, april 2014, http://www.zav-zdruzenje.si/wp-content/uploads/2014/04/Studija.pdf, on 6.4.2015

Graph 12: Population Pyramid of Slovenia for 2014



Source: Statistical bureau of the Repiblic of Slovenia

Table 5: Old age dependency ratio

	2010	2020	2030	2040	2050	2060
EU 27	25,9	31,0	38,0	45,4	59,4	53,5
SLO	23,9	31,2	40,8	49,4	59,4	62,2

Source: World Bank

5.2. HEALTH CARE INFLATION

The second issue that pertains to health care worldwide is health care inflation. The price of health service (medical equipment, drugs, methods of treatment, medical personnel) is rising faster than the price of consumer goods, while the contribution remains unchanged.

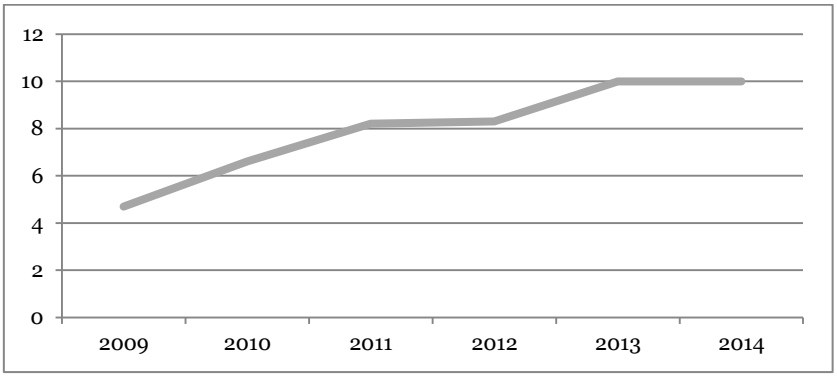
The high health inflation is caused by the modern technologies and by the extensive researches needed to achieve modest progress.

The compound annual growth rate of the health care inflation is approximately 30% higher than compound annual growth rate of the inflation of consumer goods.[34]

[34] Ycharts; US health care inflation rate.

5.3. HIGH UNEMPLOYMENT

Graph 13: Unemployment rate - Slovenia



Source: Statistical Bureau of the Republic of Slovenia

High unemployment rate means there are fewer persons paying HI contributions (and fewer employees). Unemployment thus has a double effect. The state pays the contributions of the unemployed as well as unemployed persons do not pay the contributions nor do their employers. During our research we used the data of the Statistical Bureau of the Republic of Slovenia and of the Ministry of Labor, Family and Social affairs and the results showed, that a reduction of the unemployment rate for 1% would expand HIIS funds for approximately 20 million €.

5.4. CORRUPTION

Slovenia is ranked 39th (out of 175) for transparency.[35] It is estimated that 10% - 20% of public procurement value is lost to corruption in Slovenia. In 2014, a single abused public procurement for medical equipment in Slovenia resulted in 480.000€ of material damages. Nepotism occurs in the public procurement of pharmaceuticals and medical equipment. A main issue that enables corruption is poor regulation with regard to public procurement. All of the above makes the system even more unsustainable.

[35] Transparency international, http://www.transparency.org/country#SVN_DataResearch_SurveysIndices, on 18.4.2015

5.5. INEFFICIENCY OF THE HEALTH CARE SYSTEM

To represent this issue, we chose the Health Consumer Index (HCI), which takes into account; Patient rights and information, Accessibility, Outcomes, Range/Reach of services provided, Prevention and Pharmaceuticals.

Table 6: Comparison of EHCI rankings and GDP expenditure for health

Country	EHCI ranking 2014	Public HS spending 2014
The Netherlands	1.	12,9 % GDP
Norway	3.	9,6% GDP
Slovenia	19.	9,2% GDP
Iceland	7.	9,1% GDP
Czech Republic	15.	7,5% GDP
FYR Macedonia	16.	6,4% GDP
Estonia	17.	5,7% GDP
EU 28		8,7% GDP

Source: ECHI, The World Bank

First part of the comparison is based on countries that spend around the same percentage of GDP for health. Second part of comparison is between countries ranking around the same in ECHI as Slovenia, but spend significantly less for health care. The second part of the comparison pertains to the countries that are also economically comparable. It can be seen from the table that Slovenia spends above average percentage of the GDP for health care. With the funds intended for health care, Slovenia achieves results that are way below the results of the countries, which spend similar percentage of the GDP for health care. For the first part of the comparison, it is possible to conclude, that relatively high percentage of the GDP is intended for health in Slovenia and that with such high percentage, the results could and should have been better. Slovenia ranks nineteenth in the HCI, and countries that rank similarly in the HCI (between 15. In 20. Place), usually spend a lower percentage of GDP for health, varying between 5,7 % (Estonia) and 7,5 % (Czech Republic). With regard to this part of the research, we concluded, that the funds intended for health care seem to be used inefficiently in Slovenia.

5.6. WAITING PERIODS FOR MEDICAL INTERVENTION

The waiting periods are one of the most pressing issues of the Slovenian HC system (in some cases deviating from EU average by as much as 490%). The need for reduction of the waiting periods is also recognized by the current government, which is working actively on an action plan, which also pertains to this issue.

In the table below, waiting periods for selected procedures are presented.

Table 7: Waiting periods for Slovenia and Croatia compared to EU average.

Type of Medical Interventin	Slovenia	Croatia	EU Average*
MRI Examination	85 days	171 days	32 days
Ultrasound of the heart	30 days	114 days	26 days
Hip replacement	340 days	228 days	192 days
Knee replacement	495 days	283 days	84 days
Eye surgery	58 days	218 days	68 days

Source: Liste čekanja HZZO, Čakalne vrste – ZZZS, OECD Health at a glance 2011, own calculations

5.7. RIGIDNESS OF THE SYSTEM

Slovenian health care system is rigid in several aspects. It is rarely subject to change and is intensively falling behind developed European health care system.

One aspect, where Slovenia is falling behind is the use of information technologies. The use of information technologies (e-recipes, e-scheduling, e-personal files exc.) is limited.

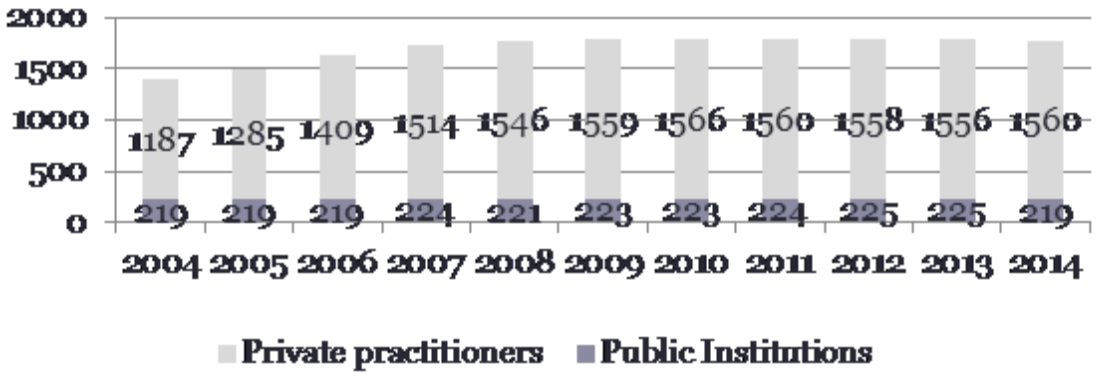
It is clear, that the use of modern technologies decreases operational costs and is more user friendly. When talking about patient outcomes, those are significantly better if a comprehensive e-health system is a part of health care system. Health care systems are fragmented by nature; technology enables more coordination and efficient long-term medical treatment. Introduction of eHealth – European project to modernize health care would result in estimated savings in amount of 99 billion € by 2017. [36] Estimated value of the project in Slovenia was 67,5 million € bringing moderately unsatisfactory results.[37]

Another aspect of rigidness of the system is the closed system of granting concessions, which is on one hand very poorly regulated by laws and on the other hand hampers free competition. Results are unmotivated health care providers, which have no incentives to come up with better results, or to save money.

[36] PwC internal research, e-health Slovenia audit report.
[37] Projekt E-zdravje, http://www.mz.gov.si/fileadmin/mz.gov.si/pageuploads/eZdravje/predstavitev/N_Kratka_predstavitev_projekta_za_splet_feb10.pdf on 16.4.2015

The number of concessions is limited to 1560. Once the concession is granted to a private provider, it is normally not subject to any further auditing nor can the new candidates compete for it. New candidates for concession have to wait for a vacancy.[38]

Graph 14: Number of private and public practitioners in Slovenia



Source: Zavod za zdravstveno zavarovanje Slovenije

5.8. TRANSFER OF COSTS TO COMPLEMENTARY HEALTH INSURANCE

As already mentioned, financing health care services in Slovenia is covered from either compulsory or complementary health insurance. The percentage of the value covered by compulsory health insurance is defined by the law. [39] While the contributions for the state governed compulsory HI are constantly remaining the same, regardless of the medical inflation, the percentage of costs covered by them is decreasing. The difference is covered from the funds collected via complementary HI, which is carried by private insurance companies. The table below show how did percentage for certain services, covered by compulsory insurance, decrease during time and transfer to complementary health insurance. On the other hand, the premium for complementary health insurance remains mostly the same. Insurance companies could raise the insurance premium, but as those are already disproportionately burdening the lower-income population that could result in a decrease of persons insured via complementary HI.

[38] Zavod za zdravstveno zavarovanje Slovenije, poslovno poročilo 2014.
[39] Article 23 of Health care and health insurance act

Table 8: Decrease in costs covered by compulsory HI

Service	1992	1995	2009	2010
Health resort treatment not continued by hospital treatment	60%	40%	15%	10%
Non-urgent ambulance transportation	60%	30%	30%	10%
Dental prosthesis' for adults	50%	25%	25%	10%
Prescripted medication from intermediate drug list	50%	25%	10%	10%
Ophthalmical devices for adults	50%	25%	25%	10%

Source: Dopolnilno zdravstveno zavarovanje in zdravstvena reforma; Slovensko zavarovalno združenje.

6. POSSIBLE SCENARIOS FOR THE FUTURE

While it is clear that Slovenian health care system will soon be subject to certain reforms, we tried to examine some of the most plausible measures that could play the part in restructuring the current system. As most of the initiatives focus on abolishing the current system of complementary insurance, we examined other possibilities for the system to collect the funds in order to maintain the current health care basket.

One of the proposals is intending to replace the current premium for complementary insurance with additional levy which would be deducted from individuals net salary. The levy would be compulsory for all of the insured, but presumably not exceeding the amount of current CHI premium (27€). The amount of additional levy would not be the same for all of the insured as the CHI premium and would depend on individual's gross salary.

Our analysis:

Assumption: the levy does not exceed the current CHI premium:

(low income) 15 €➔ 10% → 27,75 mio. €
(middle class) 20 €➔ 70% → 258,95 mio. €
(high income) 27 €➔ 20% → 99,88 mio. €
Funds collected by levy→ 386,58 mio. €

- **General findings**: probably collected less compared to current CHI (through which 470 mio € is collected annualy), possible high administration and exwcution costs
- **Consequences for private insurance companies**: loss of sizeable amount of the market

Another proposal that tends to replace the current complementary insurance implies an increase of contribution rate for health insurance. It is estimated that in order to collect the same amount of funds, contribution rate should increase per two percent. Data below is showing that such an increase would have significant implications for already burdened workers and cause a loss of sizeable amount of income tax.

Our analysis;

Assumption: the contribution rate increases from 6,36% → 8,36%:

Gross income 790 EUR, current contribution 50 EUR → 66 EUR
Gross income 1498 EUR, current contribution 95 EUR → 115 EUR
Gross income 3464 EUR, current contribution 220 EUR → 289 EUR

- **General findings**: workers are highly affected
- **Consequences for private insurance companies:** loss of sizeable amount of the market because all of health services would now be completely covered with compulsory health insurance

One of the proposals that could probably present a less invasive measure for the insured persons is suggesting a division of the current health care basket into two parts. Larger part would still be financed by the principal of solidarity with compulsory health insurance contributions, whilst the other (smaller) part would be completely controlled by the insurance companies and therefore financed with private funds. The final impact would depend on the criteria for HSB division, which could be made for example regarding the level of health care services. Primary level could become part of the contractual health insurance while the other levels would be covered by compulsory insurance.

- **General findings**: clearer division between private and public insurance, no major changes for the insured
- **Consequences for private insurance companies**: complete responsibility for their part of the HSB, independently negotiating prices, programmes and standard of services and actively participating in the system

Taking into consideration different practices from other European countries we also examined some of the most common forms of funds collection, as are for example direct participations of patients while receiving the health service and deductibles until the combined sum of payments reaches certain amount.

1. Participation instead of Complimentary HI
    - Assumption: person pays 10% of the price of the rendered health service, but only until the combined sum reaches 2% of persons income of the previous year

2. Deductible instead of Complimentary HI
    - Assumption: deductible is set to 350 EUR (the same as yearly premium for current CHI)
    - Person pays for the rendered health services, but only until the combined sum of payments reaches 350 EUR, afterwards insurance starts covering costs

      20% of insured persons – 350€ 108€ mio.
      10% of insured persons – 300€ 46€ mio.
      20% of insured persons – 200€ 62€ mio.
      40% of insured persons – 100€ 62€ mio.
      10% of insured persons – 0€ 0€ mio.
      = 287 mio. EUR

- **Findings for both of the above mentioned options**:
  People are more aware of the cost of the services, which helps avoid unnecessary health consumption
  It acts as “sickness tax”, which means no redistribution, as sick people pay more
- **Consequences for private insurance companies**: private insurance companies could offer complementary insurance, that would cover all costs of treatment

7. CONCLUSION

Slovenian health care system is on a crossroad. Choosing a wrong path may lead to further stagnation of the system, which has been present for the past decade. Unease of the medical personnel is constantly growing and significant reforms will have to take place in order to ensure better and more sustainable organization of the health care system. It must not be forgotten, that patients are at the very core of the system, and further burdening of the population with the cost of health care may have negative impacts on those with lowest incomes. Another pressing issue remains the rigidness of the system, which has enabled a limited circle of individuals to ensure lucrative and comfortable positions, which they are now reluctant to give up. The much-needed change in the Slovenian health system should therefore definitely include more flexibility and market driven economy that would incentivize the stakeholders to perform more efficiently in order to ensure better working and financial conditions for all the parties involved. More flexibility goes hand in hand with better awareness of the Slovenian patients about their rights, duties and privileges. With few of the key issues laid down will be most interesting to further observe the change in Slovenian health care.

CROATIA

1. HYPOTESIS

1. Croatia faces demographic and structural challenges to deal with in the next 10 years.
2. The system is open to changes and is on its way to privatization.
3. With accession to the EU Croatia is actively implementing changes to its health system, trying to improve quality and financial sustainability
4. Openness of the system that will be further developed makes Croatia an attractive destination for foreign health investments.

2. GENERAL OVERVIEW

Croatia's health system is based on the principles of inclusivity, continuity and accessibility, to which the insured contribute conforming to their ability to pay and receive health care services according to their needs. Ministry of health plays the role of the authority in Croatian health care system, with its principal duties being managing the health care legislation, proposing budgetary expenditures, monitoring health condition and health needs of the population, education of health care workers and supervision of the reform of health care system in Croatia. The Croatian Health Insurance Fund (Hrvatski zavod za zdravstveno osiguranje, HZZO, hereinafter CHIF) is the country's national social health insurance fund. It is the sole insurer in the mandatory health insurance (hereinafter MHI) system and it provides universal health insurance coverage to the whole population. It is also the main purchaser of health services, consequently it defines the basic health services covered by the MHI and it sets the price for services covered. It is a universal health insurance system, which means that whole population is included in the MHI. However, not all population groups pay the contributions. They are mandatory for all employed citizens, while the members of their families obtain health care services through contributions paid by the employed. Some vulnerable groups of population are exempt from paying the contributions, while contributions for others (such as the unemployed and the pensioners) the contributions are paid from the national budget. On the other hand, the CHIF also covers complementary health insurance, which is offered to everybody who is mandatorily insured.

Croatian health insurance system is relatively open to changes and reforms. Many of them were carried out in the recent years due to the unsustainability of the system as well as due to the accession to the EU. Those reforms have mostly relied on decreasing public and increasing private expenditure in the system. Parts of the reforms were not successfully implemented due to several reasons, such as insufficient preparation and failure to reform the system comprehensively.

2.1 Statistical overview

In order to further examine the health system one needs to get a better understanding of the economic situation in the observing country. Therefore, we present some of the basic economic and health related statistics and compare them to other analyzed countries.

As we can see from the table 9 below, the value of Croatia's main economic parameters such as GDP per capita and the average net salary are approximately half the EU28 average. The same goes for the main health related parameter, which is health expenditure per capita. The statistics will be more thoroughly explained throughout this analysis.

Table 9: Comparable statistics for all three countries

	Slovenia	Croatia	Serbia	EU28
Population (2014)	2.057.159	4.256.000	7.156.718	505.700.000
GDP per capita (2014)	17.506 €	10.129 €	4.784 €	21.091 €
Average net salary (2014)	1.092 €	735 €	363 €	1.489 €
Health expenditure per capita (2014)	2.003 €	1.133 €	598 €	2.193 €
Total health expenditure	3,4 bil. €	3,8 bil. €	2,8 bil. €	
(%public / % private)	72%/28%	82%/18%	63%/37%	
% of insured persons (compulsory insurance)	99%	99%	95%	
% of insured persons (complementary insurance)	90%	60%	2%	
Total contribution rate for health	12,92%	15%	12,30%	
Average life expectancy (2012)	79,5	76,7	74,5	78,5
Infant deaths (per 1000 births, 2012)	2,5	3,6	6,2	4,4
Cancer survival rate (2012)	45%	45%	32%	49%
EHCI index rating (2014)	19th	23th	33rd	

Source: Own analysis, Poslovno poročilo ZZZS 2014, Izveštaj HZZO 2014, The World Bank, Statistički urad Republike Hrvatske, Statistički urad Republike Srbije, Statistični urad Republike Slovenije

3. HEALTH-CARE SYSTEM

3.1. LEGISLATIVE OVERVIEW

The basic legal framework of the health care system is comprised of the following legal acts:

- the Health Care Act (Zakon o zdravstvenoj zaštiti[40]) of 2008 (with amendments in 2013) which regulates the principles of health care organization, the rights and obligations of health care users, types and responsibilities of health care institutions (at various levels of care) and establishes the principles of monitoring of health care institutions,

- the Mandatory Health Insurance Act of 2013 (Zakon o obveznom zdravstvenom osiguranju[41]) which regulates the scope of the right to health care and other rights and obligations of persons insured under the mandatory health insurance (hereinafter MHI) scheme, supervision, financing, organization, and tasks of the CHIF and the conclusion of contracts between the CHIF and health care providers and suppliers of medical goods,

- the Patients' Rights Protection Act (Zakon o zaštiti prava pacijenata[42]) of 2004 (amended in 2008) which comprehensively regulates the Patients' Rights,

The provision and financing of services are largely public, although private providers and insurers also operate in the health sector. Provision of health care services in specific areas of care is regulated in separate legal acts. The key acts include: the Medical Practice Act (Zakon o liječništvu[43]), the Pharmacy Act (Zakon o ljekarništvu[44]), the Nursing Act (Zakon o sestrinstvu[45]) and the Dental Care Act (Zakon o dentalnoj medicini[46]) - all in force since 2003 and with major amendments in 2008 and/or 2013. The quality of health care services is regulated in the Act on Quality standards of Health care and the manner of their application (Pravilnik o standardima kvalitete zdravstvene zaštite i načinu njihove primjene[47]) of 2011.

Provision of voluntary health insurance (hereinafter VHI) is governed by the Voluntary Health Insurance Act of 2006 (Zakon o dobrovoljnom zdravstvenom osiguranju[48]

40 Zakon o zdravstvenoj zaštiti, Narodne novine broj 150/08, 155/09, 71/10, 139/10, 22/11, 84/11, 12/12, 35/12 - odluka Ustavnog suda RH, 70/12, 82/13, 159/13, 22/14 - odluka Ustavnog suda RH, 154/14
41 Zakon o obveznom zdravstvenom osiguranju, Narodne novine broj 80/13, 137/13
42 Zakon o zaštiti prava pacijenata, Narodne novine broj 169/04, 37/08 - odluka Ustavnog suda RH
43 Zakon o liječništvu, Narodne novine broj 121/03, 117/08
44 Zakon o ljekarništvu, Narodne novine broj 121/03, 142/06, 35/08, 117/08
45 Zakon o sestrinstvu, Narodne novine broj 121/03, 117/08, 57/11
46 Zakon o dentalnoj medicine, Narodne novine broj 121/03, 117/08, 120/09 - čl.29. promjena naziva zakona
47 Pravilnik o standardima kvalitete zdravstvene zaštite i načinu njihove primjene, Narodne novine broj 79/11
48 Zakon o dobrovoljnom zdravstvenom osiguranju ("Narodne novine" broj 85/06, 150/08, 71/10), Interni pročišćeni tekst

3.2. INSURED PERSONS

3.2.1. GENERAL

Health insurance in Croatia is compulsory for every Croatian citizen as well as for persons residing in the Republic of Croatia and foreigners with permanent residence permit in the Republic of Croatia unless specified otherwise by international agreement. It is also compulsory for foreigners with temporary residence permit in the Republic of Croatia who are in employment relationship with an employer based in Croatia unless specified otherwise by international agreement.

According to the Act on Mandatory Health Insurance, there are two main categories of insured persons – the insured and their family members.

The scope of the mandatory health insurance is provided to all insured persons under the same conditions.

3.2.2. THE INSURED

- Persons employed by the domestic or foreign employer based in the Republic of Croatia,
- Persons elected or appointed to permanent duty in certain government bodies or local and regional governments, when they receive a salary for that work,
- Persons with temporary or permanent residence permit in the Republic of Croatia employed abroad by a foreign employer, who are not insured in the receiving country or on other legal grounds
- Management board members if they are not insured on the basis of work,
- Persons who are professionally trained to work without an employment contract, or those working in the scope of measures of active employment policy, in accordance with special regulations
- Persons engaged in the craft industry in the Republic of Croatia, or in an agricultural activity as the only or principal occupation, if liable to pay income tax or corporate income tax and if not insured on the basis of employment or are beneficiaries of retirement pension,
- Farmers engaged in agricultural activities as their only or main occupation,
- Priests,
- Receivers of the retirement pension, invalidity pension,
- Receivers of other social aid
- High school students and regular students of higher education institutions who are Croatian citizens and have permanent or temporary residence in the Republic of Croatia and foreigners with permanent residence permits in the Republic of Croatia, and are not insured as members of their families,
- War veterans,
- Persons, called up for military service,
- Persons sent abroad or to education/vocational training by their employer,
- Persons with recognized refugee status,

- Others with permanent residence permit in the Republic of Croatia, who are not insured on other basis (they have to register within a fixed period of time as laid down by the Act on Mandatory Health Insurance),

3.2.3. FAMILY MEMBERS

- Spouse (also a partner from a non-marital partnership (unmarried couples),
- Children (whether they were born in or out of wedlock or adopted, or orphans maintained by the insured)
- Parents (father, mother, stepfather, stepmother and adoptive parents) and others (grandchildren, brothers, sisters, grandparents) if they comply with the following criteria:
- Living in the same household
- Incapacity of independent life and work,
- Maintenance by the insured

Children of the insured retain the status of a family member of the insured until the age of 18 and after this age only if they are attending regular secondary and higher education according to the regulations of regular schooling in Croatia, by the end of regular education, but no later than the age of 26.

The VHI is provided for all the persons who have the status of compulsory insured person. The premium is set at a single price, which is 70 HRK per month (approximately 10eur).

As seen from the data available[49], 4.300.000 persons are included in the mandatory insurance system, which accounts for 99,7% of the Croatian population. The structure of the insured population is:[50]

- Employees: 1.485.324 = 34%;
- Farmers: 35.878 = 0,8%,
- Pensioners: 1.050.460 = 24%,
- Family members: 1.151.770 = 26,4%,
- Others: 639.163 = 14,6%

There are 2.500.000 people who are also complementarily insured. Which is roughly 45 % of the population. For most of the complementary insured, contributions are covered by the state.

[49] Hrvatski zavod za zdravstveno osiguranje, http://www.hzzo.hr/o-zavodu/o-hrvatskom-zavodu-za-zdravstveno-osiguranje/,
[50] ibid

3.3. SYSTEM ADMINISTRATION

3.3.1. FINANCING

The Croatian health care system is a mixed system financed from both public (insurance contributions and taxation) and private (out of pocket payments and complementary health insurance) sources. Insurance contributions account for the majority of the funds.[51]

The funding of Croatia's compulsory health insurance system displays characteristics of both Bismarck and Beveridge systems.[52]

In 2013, 17.6% of the total State budget was allocated to health care. The majority of the health care budget (over 91%) is allocated to the Croatian Health Insurance Fund (hereinafter CHIF or HZZO in Croatian) to finance goods and services covered within the compulsory health insurance scheme. The key sources of the CHIF's revenue are compulsory health insurance contributions, accounting for 76% of the total revenues of the CHIF, and financing from the State budget (15%). The key contributors are employees, the self-employed and farmers, and only about a third of the population is liable to pay full health care contributions. Certain vulnerable categories of the population are financed from the payroll contributions of contributing members and transfers from the central government budget and county budgets. Overall, the financing of the compulsory health insurance system seems to be regressive.[53]

NOTE: In January 2015, the CHIF was excluded from the state treasury, which consequently implies changes to the financing of the healthcare insurance. The budget will no longer provide the financing sources to the CHIF.

Payment of the contributions is obligatory for all the insured, differing in the aspect of who bears the costs of the payment (employers pay the contributions for employees, the self-employed are obliged to pay the contributions themselves). The insurance of family members is subject to the existence of the insurance of insured person and no additional contribution has to be paid. The most vulnerable sections of the population are exempted from the payment of the contributions.[54]

For all the persons that are insured on the basis of employment relationship as well as for persons elected or appointed to permanent duty in certain government bodies or local and regional governments, the employer is obliged to pay the contributions laid down by the law. The basis for calculation is the gross wage and the contribution rate is 15%.

[51] Health Systems in Transition (HiT) profile of Croatia, http://www.euro.who.int/__data/assets/pdf_file/0020/252533/HiT-Croatia.pdf?ua=1 on 3.5.2015

[52] Health Systems in Transition (HiT) profile of Croatia, http://www.euro.who.int/__data/assets/pdf_file/0020/252533/HiT-Croatia.pdf?ua=1 on 3.5.2015

[53] Health Systems in Transition (HiT) profile of Croatia, http://www.euro.who.int/__data/assets/pdf_file/0020/252533/HiT-Croatia.pdf?ua=1 on 3.5.2015

[54] Financiranje zdravstvene zaštite, Hrvatski zavod za osiguranje, http://www.hzzo.hr/zdravstveni-sustav-rh/financiranje-zdravstvene-zastite/ on 3.5.2015

Calculation basis are different for different groups of the insured. The basis for calculation is the wage ("poduzetnička plača" – not lower than 8737 HRK – 1147eur) and in some cases the average wage, which is then multiplied with different coefficient according to the legal basis of the insurance.

Normally the contribution rate is 15%, except for the most vulnerable population groups.

The self-employed, farmers, persons engaged in agricultural activities as their only or main occupation, sportsmen, artists pay the contributions themselves, at the contribution rate of 15%. Priests pay a lower contribution, 7,5% with a calculation basis being the multiplication of coefficient and average wage. The following persons pay the contributions at a different calculation basis but all at the same contribution rate – 15%: receivers of the retirement and invalidity pension from abroad, persons who are not insured on any other basis, foreigners residing in the Republic of Croatia. Contributions for the unemployed are paid by the government (national budget) at the contribution rate of 5 % of the calculation basis of multiplying the number of unemployed people and the minimum wage. The same contribution rate is laid down for the receivers of invalidity pensions.

Table 10: Contributions of the insured

Insured person	Who bears the payment	Contribution rate	Calculation base
Employee	Employer	15%	Gross wage
Self-employed	Insured person	15%	Poduzetnička plača; min.: avera wage x coefficient 1,1 (8737HRK 2015)
Farmers	Insured person	15%	
Unemployed	Budget	5%	Number of the unemployed x the amount of the minimum monthly base (2.780 HRK)
Pensioners	Budget	3% - if pension income above the average sal 1% - if pension income below the average sal	The sum of pensions above/below the average wage received by all pensioners
Priests	Insured person	7,5%	Average wage x coefficient 0,35 (2.780,05 HRK)
Sportsmen and artists	Insured person	15%	Average wage x coefficient 1,0 (7943HRK)

Source: Doprinosi za obvezna osiguranja- Ministarstvo Financija 2015[55]

[55] Doprinosti za obvezna osiguranja, Porezna uprava, Ministarstvo financija, http://www.porezna-uprava.hr/HR_publikacije/Prirucnici_brosure/Doprinosi_157i.pdf, on 5.5.2015

Complementary health insurance may be provided by the CHIF or by private insurers. While everybody may purchase supplemental insurance from private insurers, only persons who have membership in the compulsory health insurance scheme are entitled to purchase complementary cover from the CHIF. The monthly premium is 70 HRK.

Croatian citizens who do not have complementary health insurance (currently around 1.9 million) are required to participate in health care costs in the amount of 20% of the full cost of health care during hospitalization and when going to a family physician or dentist. In case of hospitalization, citizens without supplemental insurance must pay up to 20% medical services, or maximum 2,000HRK per visit. To see a family doctor or to receive prescription medicines citizens without complementary insurance pay approximately 10HRK. There are, however, exemptions for vulnerable population groups (e.g. pensioners, the disabled, the unemployed and those on low incomes).

Since 2003, a substantial and systematic reduction of the right to free health care services has taken place, through both increasing co-payments for virtually all services and the introduction of rationing of services. Certain population groups (e.g. the disabled, organ donors, frequent blood donors, students, and people with low incomes) have the right to free complementary health insurance membership in the CHIF and their respective contributions are financed from the State budget (over 60% of people with complementary health insurance in the CHIF).[56]

It is noteworthy that the vast majority of Croatian population are exempted from paying participation since they have complementary health insurance.

3.4. HEALTH CARE SERVICE PROVIDERS

The provision and financing of services are largely public, although private providers and insurers operate in the health sector. The majority of health care providers are under public ownership, but there has been some growth in a number of private providers, notably in primary care, dental services, specialized clinics and dispensaries.[57] Private insurance market is very small, offering complementary insurance coverage for services not covered under the mandatory health insurance scheme.[58]

The CHIF is the sole insurer in the MHI system, which provides universal health insurance coverage to the whole population. The CHIF plays the key role with regard to the definition of the basic benefits basket covered under the statutory insurance scheme, the

[56] Health Systems in Transition (HiT) profile of Croatia
[57] Health Systems in Transition: Croatia-Health System review, European Observatory on Health systems and Policies, 2014
[58] Ibid

establishment of performance standards and in price setting for services covered under the mandatory health insurance. The CHIF is also responsible for the distribution of sick leave, maternity benefits and other allowances as regulated by Mandatory Health Insurance Act.[59] The Directorate of CHIF is located in Zagreb and is responsible for contracting with providers, while its regional offices (in Zagreb, Osijek, Rijeka and Split) then execute the contracts. The CHIF contracts with individual and institutional health care providers for the provision of health care services within the scope of the MHI. A new contracting model is in place for the 2013–2015 period. This was introduced to incentivize health care providers to raise the quality of care and patient satisfaction and to incentivize the provision of certain types of care (e.g. prevention) through a mixture of provider payment mechanisms. As regards paying for hospital care, Croatia uses a modified version of the Australian Refined-DRG (AR-DRG) system, which was fully implemented on 1 January 2009 (replacing fee-for-service payments).[60] Health care providers contracted by the CHIF, both private and public, belong to the National Health Care Network. Every three years (or more often, e.g. every year recently) the CHIF conducts a competition for contracts with individual and institutional health care providers for the provision of health care services within the scope of the MHI. The CHIF pays for health care services according to the agreed contracts. These contracts specify which services are to be provided, their scope and quality, requirements for cost accounting and payment terms (fixed and variable components). Contracts are designed in conformity with the guidelines set in the government's National Health Plan. During the contract period, the CHIF supervises the execution of contractual obligations of health care institutions, private medical professionals and contracting suppliers of pharmaceuticals and medical aids. Both financial and medical (e.g. the scope of services provided, adherence to clinical guidelines when prescribing therapy) aspects of contracts are monitored.[61]

In the 2009 Concessions were introduced, which allowed the counties to play a more active role in the organization and management of primary health care as counties are organizing tenders for the provision of specific primary health care services with the aim of better tailoring it to local needs.[62]

Concessions may serve as grounds for performing the following types of health care service: family (general) medicine; dental health care; health care services for infants and children of pre-school age and for women; laboratory diagnostics; pharmaceutical services; occupational medicine; and medical care in the home of the patient.[63] At the end of 2012, there were 5792 registered private practice units, including 2460 doctors' offices. Out of these, 74% were in concession.[64]

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[59] Article 98 of the Mandatory Health Insurance Act (Zakon o obveznom zdravstvenom osiguranju)
[60] Health Systems in Transition: Croatia-Health System review, European Observatory on Health systems and Policies, 2014
[61] Ibid
[62] Ibid
[63] Act on Health Care (Zakon o zdravstvenoj zaštiti), article 40
[64] Health Systems in Transition: Croatia-Health System review, European Observatory on Health systems and Policies, 2014

In 2012, there were 76 hospital institutions and treatment centers in Croatia. The majority of these were owned either by the State or by the counties, with only nine hospitals and five sanatoriums privately owned.

The number of physicians per 100 000 inhabitants increased from around 212 in 1990 to 299.4 in 2011, but this is still substantially lower than the EU27 average of 346. There is a perceived shortage of physicians, especially in family medicine, and shortages are also observed in rural areas and on the islands. The number of nurses per 100 000 inhabitants in Croatia in 2011 was 579, well below the EU average of 836, and the ratio of nurses to physicians, at approximately 2:1 in Croatia, was lower than the same ratio in the EU15.[65]

Based on article 24, Act on Health Care, Croatia's health service providers are organized into primary (general and family practitioners, emergency care etc.), secondary (specialized care and hospitals) and tertiary sectors (highly specialized care, teaching hospitals, medical research facilities) as well as health institutes.

Until 2015, the Treasury used to redistribute the CHIF's funds to providers, according to the contracts signed by the CHIF. In January 2015, the CHIF started to operate separately from the State Treasury i.e. the CHIF has now more autonomy.[66]

4. CHALLENGES

1.) Lack of preventive policies is resulting in generally poor national health status, presenting a financial burden for the system.
2.) There has been significant increase in migration of health workers to other EU countries, due to the lack of employment opportunities in Croatia.
3.) The structure of the system is financially unsustainable on the long run due to aging population and small % of active contributors
4.) Current organization of primary and secondary level of health care providers is the most pressing issue, causing long waiting lines and unnecessary medical consumption

[65] Ibid
[66] HZZO izlazi iz državne riznice, page 13-17, Poslovni Dnevnik, 1.1. 2015, Hrvatska

4.1.POOR NATIONAL HEALTH STATUS

While analysing the overall picture of the health status of the Croatian population, it must be noted that there are some indicators showing relatively poor outcomes. The total mortality rate and the mortality rate from major diseases are still high compared to European average. A particularly large gap between Croatia and EU average is shown with respect to the high prevalence of major diseases such as cardiovascular diseases, cancer, injuries, chronic respiratory diseases, diabetes and other chronic diseases. The situation concerning health behaviour of the population and risk factors such as smoking, obesity and overconsumption of alcohol, is alarming as well. The prevalence of young smokers in Croatia is 33% higher than the average of the EU 27. High percentage of smokers can be also directly linked to high prevalence of lung cancer, coronary heart diseases and strokes. In summary, major preventable health, risks are highly present in Croatia and the authorities should do much more to educate the population about the seriousness of these risks for health and thus raise the awareness of taking personal responsibility for one's own health.[67]

Table 11: Health profile of Croatia, Slovenia and EU28 average

	EU28	Slovenia	Croatia
Regular smoking (% of population)	22,80%	20,50%	35%
Youth smoking prevalence (15 years old and younger)	17,50%	19,50%	26%
Smoked cigarettes per day average	14,4	17,2	18,8

Mortality rate	EU28	Croatia	Cost of treatment (€)
Lung cancer (male)	56%	80%	61.000
Colon and rectum cancer	19%	31%	52.000
Average life expectancy	78,5	76,7	
Lung cancer incidence per 100.000 population	52,7	66,8	

Source: European journal of cancer 2013, European Heart Network and European Society of Cardiology,

[67] National Health Care strategy 2012-2020-Ministry of Health of the Republic of Croatia, http://www.zdravlje.hr/content/download/10238/74922/file/National%20Health%20Care%20Strategy%202012-2020.pdf, on 7.5.2015

4.2. MIGRATION OF HEALTH CARE WORKERS

Croatia is marked by new trends in the field of health, including migration. In recent years, a shortage of physicians and other health workers has been noted. External migration of health workers is directed towards the Western European countries and the United States. There are also internal migrations related to employment outside the health sector, as well as migration from rural areas to larger urban centers.[68] It is noted that Croatia could in the future expect a shortage of doctors, primarily due to the unfavorable age structure in public health system (the average age of specialist is 55 years), as well as the lower earnings and opportunities for career advancement compared to other EU countries. A specialist doctor in Croatia earns on average 9000 HRK per month (1187€), which is at least four times lower than in Austria or Germany. At a rate of 2.9 physicians per 1000 population, Croatia is still below the EU-27 average of 3.4.

Table 12: Numbers of medical personnel per 1000 population

Country	Number of doctors	Number of nurses
EU28	3,4	8
Croatia	2,9	5,7*
Slovenia	2,5	8,2

Source: OECD health at a glance 2014

It is worth mentioning that on average, only 1 out of 5,7 is actually a professional nurse, others are just associates to professional nurses. The ratio of associates to professionals is the biggest in Europe.

4.3. UNEVEN ACCESSIBILITY TO HEALTH CARE INSTITUTIONS

Besides a shortage of medical personnel, Croatia also has a problem of uneven accessibility of medical institutions. Croatia is 2nd in Europe, behind The Netherlands in the size of the hospitals by the number of beds for acute patients (446; NL 541). This can be attributed to the fact that hospitals were paid by the number of days patients spent in hospital, which is why on average a patient in Croatia is hospitalized for one night more than the EU average. Uneven accessibility can also be demonstrated by the number of acute hospitals per 1,000 km2 in which Croatia is in the 39th place (0.6/1,000 km2; EU average: 2.3/1,000 km2) as well as by the number of hospitals per 100.000 population in different counties.

Table 13: Number of hospitals per 100.000 population in selected counties

[68] Strateški plan razvoja ljudskih resursa u zdravstvu 2015-2020, Zagreb, 2015, http://www.zdravlje.hr/content/download/15837/117623/version/1/file/Strateški+plan+razvoja+ljudskih+resursa+u+zdravstvu.pdf, on 10.5.2015

County	Number of hospitals/per 100.000 population
County of Pozega-Slavonia	2,3
County of Split-Dalmatia	0,2

Source: National health care strategy 2012-2020, Ministry of health

4.4. PERCENTAGE OF INSURED PEROSNS

In the year 2013, there were 4.349.197-insured persons registered at the Croatian Health Insurance Fund (CHIF). In the structure of insured persons, there are 1.455.152 active insured persons, which is 1.12% less in comparison to the year 2012. There is 1.052.214 of pensioners registered in 2013, which is something more compared to 2012 when there was 1.047.191-registered pensioners.
The other categories of insured persons (unemployed, students, persons incapable for independent life/ work etc.) increased for 8.5 %, which can be seen in following review; [69]

Table 14: Insured persons - Croatia

Insured persons	I.-XII. 2012.	I.-XII.2013.	2013. / 2012.	2012.	2013.
Active insured	1.471.662	1.455.152	98,88	33,78	33,46
Active farmers	32.205	28.621	88,87	0,74	0,66
Pensioners	1.047.191	1.052.214	100,48	24,04	24,19
Familiy members	1.135.747	1.086.224	95,64	26,07	24,97
Others	669.681	726.986	108,56	15,37	16,72
Total	4.356.486	4.349.197	99,83	100	100

Source: Godišnji izvješće hrvatskog Zavoda za zdravstveno osiguranje 2013

There are 33,46% insured persons that are actively contributing for the compulsory health insurance, 24,19% pensioners, 0,66 % farmers, 24,97% family members and 16,72% of other insured persons. If we compare the number of active insured persons to the number of pensioners, the ratio is very unfavourable. In 2013, one pensioner gets 1.38 active insured persons. Demographic changes are perhaps the biggest challenge for health care systems and without any change in the contributions structure, the amount of funds collected will be reduced, causing a decrease in health expenditure per capita, which is already well below EU average.

Table 15: Health expenditure per capita

[69] Godišnje izvješće Hrvatskog zavoda za zdravstveno osiguranje za 2013 godinu, http://cdn.hzzo.hr/wp-content/uploads/2014/05/HZZO_izvjesce_2013_KB_FINAL.pdf on 9.5.2015

Current health expenditure per capita		
		CAGR (2000 - 2012)
EU28	2.193 €	3,3
Slovenia	2.003 €	2,9
Croatia	1.133 €	1,6

Source: Eurostat, The World Bank, general information

4.5. LACK OF COOPERATION BETWEEN PRIMARY AND SECONDARY CARE

One of the key issues in Croatian healthcare system is the imbalance that has developed between primary and secondary care, causing a rapid growth of cases treated by specialists on secondary and tertiary level. This has resulted in unnecessary health consumption and long waiting lists, rising overall costs in the system. Primary-care physicians play a very important role with regard to healthcare cost determination, by prescribing drugs and referring patients for specialist or hospital care. In Croatia, primary-care physicians are paid based on "capitation" payments, i.e. flat fees per patient per year. [70] The main issue of this payment system is, that it presents an incentive to physicians, to sign up as many patients as possible, which also leads to rationing of services to free up time to see more patients. Preventative care is therefore cut back, with more and more patients being referred to specialists. Unlike primary care, the hospital payment system consists of three separate components: for patient accommodation, hospitals are paid a flat fee per bed per day; physicians' services are mainly paid on a fee-for-service basis, pharmaceuticals and other materials are paid separately, depending on the cost of each item. In addition, each hospital budget is limited by a "global ceiling", with hospitals being subject to financial penalties if they exceed the ceiling. [71] These hospital financing methods also have some serious flaws. Capacity-based payments encourage hospitals to keep the beds full and extend the length of stay, since high occupancy results in steady funding. Low occupancy rates might on the other hand, lower the global ceiling on the hospital budget the following year. Hospital payment methods are not providing any incentive for hospitals to increase productivity since the HZZO essentially reimburse hospitals for inputs used rather than outcomes. Hospital management therefore has no incentive to try to economize on inputs and realize higher net income. However, the Ministry for health care in Croatia has announced that in 2015, the list of the most successful hospitals will be published, i.e. 20 % of all rationalized hospitals based on the results of technical supervision (including performance indicators)[72]

[70] D. Mihaljek, Health care policy and reform in Croatia; how to see the forest for the trees, http://www.ssoar.info/ssoar/bitstream/handle/document/6134/ssoar-2006-mihaljek-health_care_policy_and_reform.pdf?sequence=1 on 12.5.2015

[71] Ibid

[72] Strategic objectives for the period 2014-2015, Ministry of Health of Repulic of Croatia, http://www.zdravlje.hr/en/ministry on 11.5.2015

5. REFORMS OF CROATIAN HEALTH CARE SYSTEM

In recent years, Croatia has implemented several reforms connected to the health care system. Results of reforms in the early period before 2013 were moderately unsatisfactory; nonetheless, most recent set of reforms and action plans is being carried out with relative haste and determination. As of now, it is impossible to comprehensively evaluate the reforms, and is therefore fair to say, that Croatian health care system is currently in phase of rapid transition due to several factors. Some of the reasons for transition pertain to Croatian accession to the European Union and some of the factors are merely the result of underfinanced health care system in need of change and modernization. Most recently, Croatia has recognized the need to take approach that is more active to the promotion of medical tourism, and has come up with an action plan pertaining to this particular medical industry.

In 2015, a plan to reform current law on health-care protection (Zakon o zdravstvenoj zaštiti) has been proposed, bringing some significant changes to the current health care delivery model in Croatia.[73] The reform is planning to abolish the limit of 30% concessions per healthcare center, meaning that county alone can decide on the number of operators that they need in their area to offer medical care at the highest level. Important form of integration in primary health care is establishment of 'group practices' (i.e. association of teams in concession in joint activities) through which greater efficiency, continuity and quality of work can be achieved by joint use of space, diagnostic and therapy equipment and non-medical services.

The National Health Care Strategy[74] enhances the importance of improving the legal framework regarding concessions for performing public health care, in order to provide continuity and universality of health care on the primary level. The main goal of the plan is therefore to increase the efficiency of the health care providers. One of the goals is also the reorganization of system and operation of the system of emergency medical service in order to increase horizontal connectivity between emergency providers network.[75]

In connection to primary health care health centers are also getting a new role in the system of health care delivery, to ensure patients receive the service faster and better, while reducing waiting lists and offering wider range of services in one place. The most important change is certainly enhanced by the ability to conduct specialist examination without going to the hospital. Health centers will therefore increase the number of specialist services like ophthalmologists, otolaryngologists, neurologists, surgeons, internists, dermatologists, etc. The reform is planning to increase the availability of primary health services in rural areas and open up the possibility of counties to expand the type of services offered to their residents. For certain services, patients would not have to travel to larger hospital centers

[73] Prijedlog zakona o izmjenama i dopunama zakona o zdravstvenoj zaštiti, s konačnim prijedlogom zakona, Ministarstvo Zdravlja, Zagreb, 2015

[74] National Health Care strategy 2012-2020-Ministry of Health of the Republic of Croatia

[75] ibid

anymore, which would also ensure the reduction of waiting on service and faster resolution of health problems.

The objectives of National Plan will be also carried out through the following measures; reducing the rate of acute hospitalization by 10%, lower the average occupancy rate of beds to 80-85%, reduce the length of hospitalization by 10-40%, increase the number of ambulance services for a minimum of 10% and day surgery for a minimum of 10%.

5.1. REFORMS CONCERNING HEALTH CARE PROVIDERS

5.1.1. SANATION OF PUBLIC HOSPITALS

In 2012, the Act on Sanation of Public Institutions was adopted, mainly with the aim of improving the finances of heavily indebted county-owned hospitals. It was conceived as one of the measures aimed at reducing the overall public debt and improving the efficiency of the public sector (measures were also undertaken in other sectors).

It enables temporary centralization of the hospital management, whereby hospitals transfer their management to the Ministry of Health during financial reorganization and for two years following the end of this procedure. This is financed from the State budget.

With regard to improving the financial situation of public hospitals, joint hospital procurement program for public hospitals was introduced. The procurement program introduced centralized approach, whereby a number of hospitals were assigned to procure categories of goods for all participating hospitals. Hospitals that had previously achieved best value for money for certain procurement categories were selected to be the central purchasers. So far, the reform is proving to be successful in reducing prices and achieving savings, and in standardizing the quality of procured goods.

5.1.2. NATIONAL PLAN FOR DEVELOPMENT OF HEALTH CARE PROVIDERS

The main goal of the national plan for development of hospitals 2014/2016 is the development of general hospitals and decrease in acute hospitals capacities as well as increasing horizontal integration of national health care providers network. The plan also creates space for privatization of primary health care. In secondary health care, the aim is to functionally connect hospitals, and change the organization of the work in sectors, where inter-hospital overlaps appear. The consequence will be to form regional »centers of excellence« with large numbers of specialist from different medical fields gathered at the same place. That will enable better conditions for organizing the work process and better capacity efficiency of human resources as well as medical and technical equipment. Functional integration of different categories of hospitals and vertical connection with appropriate clinical hospital center will result in more stable HC provision and increase permeability between secondary and tertiary levels of hospital treatment. That will have a

positive effect on quality of care and shortening of the waiting periods. Overall, integration will be conducted for 67,5 % of the hospitals. [76]

Other goals set in national plan are shown in the table below.

Table 16: Goals of the national plan for development of hospitals

Result	Percentage
Decrease of level of acute hospital treatment	10%
Increase use of hospital capacities	To 80-85 %
Decrease the length of hospital treatment	10-40%
Increase the number of non-hospital treatments	10 %
Increase of non-acute surgery and general hospital usage	Min. 10 %

Source: National plan for development of hospitals 2014-2016, Ministry of health

5.1.3. FINANCING OF THE HEALTH CARE SYSTEM

With the new government and the new minister of health Siniša Varga in charge, some of the reforms were also carried out with regard to financing of the health care system. First significant reform was to exclude health care financing from the Bureau of Tax Revenue (finančna uprava) in order to exclude politics from day-to-day financing of the HC system. This reorganization essentially meant that Croatian health care system became more similar to Slovenian and Serbian health care system, with CHIF being the only steward of the health care system.

Other reforms pertaining to health care, come in a package, together with pension system and wage system reforms are aimed at cutting the health care deficit, which currently stands at 2,8 billion HRK (EUR 400 million).

The reforms introduce professional retirement and later retirement age in order to tackle the modern trends of ageing population, which pressures every health care system.[77]

6. POTENTIALS OF MEDICAL TOURISM

Due to the relative crisis of health care in developed countries (high costs, aging population, long waiting periods, medical tourism offers great potential for growth especially in the European periphery (including SEE region).
There were 203 million annual travels in Europe for the medical purposes in year 2013.

[76] Nacionalni plan razvoja bonica 2014- 2016, Ministry of health, http://www.hssms-mt.org/media/2947/matijevic-ratko-nacionalni-plan-razvoja-bolnica.pdf, on 8.5.2015
[77] Croatia: Policy Options for Future Pension System Reform, The World Bank, 2011, http://siteresources.worldbank.org/INTCROATIA/Resources/Croatia_Policy_Notes-Pension.pdf, on 14.5.2015

Annual growth of the sector is expected to be around 7 % until 2017.
Combined effects on the European economy is estimated at 328 billion €.
Although Croatia has some structural obstacles to overcome there are reasonable possibilities for development of medical tourism.

Croatia is currently working on an action plan for development of medical tourism until 2020. As recognized in the national plan[78], Croatia is suitable for medical tourism for several reasons:

- Good accessibility
- Quality and variety of tourist facilities
- Increasing number of private institutions interested in medical tourism.
- Structural reforms introducing more freedom to the private health sector, enabling self-organizing
- Openness of the system.
- Number of private health insurance companies is growing
- Low cost of health care

The annual fiscal effects of the sectoral growth are estimated to be around 1 % of the Croatian GDP, bringing 110 million € only to the secondary health care providers.[79]

To illustrate the underdevelopment of the Croatian health care system, the number of overnight stays with the purpose of medical tourism in Germany, Slovenia and Croatia and revenues arising from these overnight stays are shown below.

Table 17: Comparison of the overnight stays and revenues in selected countries

	Annual overnight stays for the purposes of medical tourism	Estimated income
Germany	100 million	30 000 million
Slovenia	3 million	200 million
Croatia	0,2 million	6 million

Source: National plan for development of health care tourism until 2020[80]

7. CONCLUSION

Evaluating a system in such rapid transition is always an ungrateful assignment. Nonetheless, it can be said, that there is motivation and determination for improvement of the Croatian health care system. Accession to the European Union was also one of the drivers of the development. However, before progress can be made, some of the issues of the system will also have to be remedied. A particular concern remains the poor national health care status,

[78] National plan for development of healh care tourism until 2020, Ministry of Tourism, June 2015http://www.mint.hr/default.aspx?id=23933, on 16.5.2015
[79] ibid
[80] ibid

which hampers efficiency of the health care system, so more emphasis has to be put on preventive practices and their efficiency. Better prevention will reduce the pressure on the health care providers which are currently overburdened and also a part of the significant change. Due to the financial unsustainability, Croatia has chosen a path of privatization of health care, which is seen as the only way out of the financial issues due to the poor economic status of the country. The model of privatization has proved to be efficient in several less developed European countries such as Czech Republic and Estonia. It is clear that the state by itself cannot provide for a sufficient health care system, where the patient is in the center of the system, so opening the system for foreign and private investment was a clear choice. Whether this will be efficient, it is hard to say. Croatia also shows great potential with regard to the medical tourism, due to relative quality of its health care for affordable price. Tourism already is one of the main drivers of economic development so the conditions to further specialize and offer a comprehensive medical service at affordable prices seems a good and plausible solution. Nonetheless, all the above-mentioned positive aspects can quickly turn into negative aspects if the momentum of transition slows down or stops. Therefore, Croatia has to continue its path of transition and if it conducts it efficiently, the consequences will be notable and significant.

SERBIA

1. HYPOTESIS

1. Primarily, Serbia needs to tackle structural issues (corruption, lack of prevention, low contributions, lack of monitoring) and only after that deal with specific challenges in the health system (low number of doctors, waiting lists, poor dental care, and unnecessary health consumption).
2. Even though certain reforms are taking place, Serbia needs to work towards better and more efficient implementation of regulations.
3. Foreign investors might face difficulties entering the market as the corruption level is relatively high.

2. GENERAL OVERVIEW

The Serbian public health system is founded on equity and solidarity and despite the political and economic changes, the idea of universal coverage for the extensive level of services was kept. The Law on Health Insurance[81] of the Republic of Serbia governs compulsory and voluntary health insurance, with voluntary health insurance playing only a minor role in the overall insurance scheme. The health sector consists of predominantly public, but also from private facilities, the number of which is steadily growing.[82] The private sector exists in parallel with the public, i.e. private and public health facilities are not integrated[83].

Healthcare delivery is organized on primary, secondary and tertiary level. The primary health care facilities are controlled by municipal authorities, and the secondary and tertiary care facilities by the state, the provinces and the city of Belgrade.[84]

Negative effects of political, economic and social crises during the 1990s in Serbia and demographic changes in terms of population ageing, have had a strong impact on the health situation of the population. The Serbian health system is characterised by very slow reforms, even though, they are urgently needed, especially in the field of financing, which is a critical point for the development of the Serbian health system in the future.

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[81] Zakon o zdravstvenom osiguranju, Sl. glasnik RS", br. 107/2005, 109/2005 - ispr., 57/2011, 110/2012 - odluka US, 119/2012, 99/2014, 123/2014 i 126/2014 - odluka US

[82] Finansijski izvještaj za 2013, Institut za javno zdravlje Srbije, http://www.batut.org.rs/download/Finizv2013.pdf on 8.6.2015

[83] Izvjestaj izvrsenja financijskega plana za odinu 2014, Republic Health Insurance Fund, 2015, http://www.rfzo.rs/download/Izvestaj_izvrsenje_finplana2014.pdf , on 9.6.2015

[84] D. Vukovic, N. Pericic, Annual National Report 2010, Pensions, Health and Long-Term care, Republic of Serbia, 2010

Other reform aims have been directed towards improving the health status of the population, equal access to health care, improving quality and efficiency, rationalising the network of health institutions and reducing the number of employed. The vast majority of these aims, even though officially proclaimed, have not been realised.

2.1. STATISTICAL OVERVIEW

	Slovenia	Croatia	Serbia	EU28
Population (2014)	2.057.159	4.256.000	7.156.718	505.700.000
GDP per capita (2014)	17.506 €	10.129 €	4.784 €	21.091 €
Average net salary (2014)	1.092 €	735 €	363 €	1.489 €
Health expenditure per capita (2014)	2.003 €	1.133 €	598 €	2.193 €
Total health expenditure	3, 4 bil €	3,8 bil €	2,8 bil €	
(%public / % private)	72%/28%	82%/18%	63%/37%	
% of insured persons (compulsory insurance)	99%	99%	95%	
% of insured persons (complementary insurance)	90%	60%	2%	
Total contribution rate for health	12,92%	15%	12,30%	
Average life expectancy (2012)	79,5	76,7	74,5	78,5
Infant deaths (per 1000 births, 2012)	2,5	3,6	6,2	4,4
Cancer survival rate (2012)	45%	45%	32%	49%
EHCI index rating (2014)	19th	23th	33rd	

Table 18: Comparable statistics for all three countries

Source: Own analysis, Poslovno poročilo ZZZS 2014, Izveštaj HZZO 2014, The World Bank, Statistički urad Republike Hrvatske, Statistički urad Republike Srbije, Statistični urad Republike Slovenije

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It is evident from the table above that certain indicators determining the overall economic situation in Serbia, do not achieve the EU average level. Conclusion can be made (just like in the Croatian health system) that the effects of low economic parameters are directly linked to the poor national health status, which will be further explained in the research.

3. HEALTH CARE SYSTEM

3.1. COMPULSORY HEALTH CARE INSURANCE

3.1.1 INSURED PERSONS

Similar to the other analysed countries, the vast majority of the population is insured via mandatory health insurance. Nonetheless, it is important to notice, that in Slovenia and Croatia 99% of the population is compulsory insured, while in Serbia, this percentage is a bit lower, only 96%. Even though the difference seems minimal, it shows that the system has certain strategic issues and is lagging behind the other two.

The insured persons are divided into three groups. 1. those who pay the contributions themselves (employed, self-employed and farmers), 2. those who are insured via other insure persons (for example family members) and 3. those who's contributions are payed by the state (unemployed, retired, other).

Table 19: Persons insured by compulsory health insurance in Serbia

Type of health insurance	Number of persons	%
Employed persons*	2,875,243	42%
Self – employed persons **	287,214	4,2%
Farmers***	320,771	4,7%
Unemployed persons	95,358	1,4%
Retired persons	1,895,397	27,7%
Other	1,370,015	20%
Total	6,843,998	100%

Source: National Health Insurance Fund, 2014

As the upper table shows, the percentage of the insured persons, who actively contribute for the compulsory insurance is around 40%. The number of retired persons, who does not contribute to the system is rather unfavourable, amounting to almost 30%.

The issue of the low number of actively contributing persons, aging of population and predominantly relying on only one source of financing will be further analysed under point 4.

3.3 SYSTEM ADMINISTRATION

3.3.1 FINANCING

When it comes to allocations for health care expressed as percentage of GDP, Serbia is above average in the EU, with its 10,5%. [85] However, in comparison to other EU countries, the Republic of Serbia allocates a small absolute amount of funds for health care, because Serbian GDP is significantly smaller than in majority of European countries. While looking at the real amount of money allocated for health, it is quite evident that the amount is insufficient for the population's needs.

Health expenditure per capita is significantly lower compared to other European countries and it is estimated to be approximately 603€ in 2013.[86]

Funds for financing mandatory health insurance are mostly provided through contribution payments by employers and employees (at a rate 12.3%) and also from budgetary sources and other sources such as for example co-payments. However, the latter are practically irrelevant as a source of financing, as the prices of medical services are very low and because there is a wide range of insured persons who excluded from the obligation of paying the co-payments (elderly over 65 years, children, pregnant women, persons with disabilities, unemployed and recipients of social welfare benefits). Another source of financing is private expenditure, which is more or less completely based on out-of-pocket payments, proportion of which is relatively high compared to other European countries, making health care less accessible to poor (in Slovenia only 44% of private expenditure present the out-of-pocket payments, the rest are expenses for the complementary health insurance, which is almost non existing in Serbia). It was estimated that health insurance covers approximately 61.9% of the total health care expenses, and 38,1% of payment is additional out-of-pocket money.[87]

Apart from official co-payments paid to the public health facilities, there is also a wide spread practice of paying for so called non-standardised procedures, as well as advanced medicines. These payments go to private or public institutions. Bare in mind that these payments are not briberies but payments for the higher quality services. Along side that , there are frequent scandals in connection with the corruption in health care, which is present at all levels, causing the already insufficient funds to be allocated faulty.[88]

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[85] WHO General information about Serbia, http://www.who.int/countries/srb/en/ on 3.6.2015

[86] The data about health expenditure per capita for health in Serbia is the result of our own calculation due to inconsistency in official published data.

[87] Ekonomija zdravstvenog sistema Srbije: tekući problemi i promene, Sanja Stošič, Nevena Karanović, Vojnosanitetski pregled, 2014

[88] D. Vukovic, N. Pericic, Annual National Report 2010, Pensions, Health and Long-Term care, Republic of Serbia, 2010

Collected funds are centrally pooled by the Republic Health Insurance Fund (RHIF) and redistributed in line with regulation for contracting with health institutions. Total incomes of the Health Insurance Fund for 2014 were 1.8 billion €.[89]

Essential changes are needed to the current financing structure, namely voluntary health insurance and increased partnership between public and private sectors which are often seen as desirable directions of development in health care financing.[90]

3.4 PROVISION OF SERVICES

The national health system is organized on three levels. Primary health care is provided by 161 primary health care institutions and health infirmaries. Secondary and tertiary health care is available in 42 general hospitals, 15 specialized clinics, 23 independent institutions and clinics, 5 health centers and clinics, 4 clinical centers and 59 other health institutions.[91]

Financing of dental care is limited only to children, students, pregnant women and some special categories of patients.[92] Mandatory insurance does not cover the costs of dental services for adults, who are supposed to use services in private practices. As a result, the number of dental doctors in public health care system has been significantly reduced.

Secondary health care facilities (general and special hospitals) offer services of hospital care, based on referrals of doctors from primary health care facilities. General hospitals comprise of several specialist services – mainly internal medicine, surgery, orthopaedics, anaesthesiology, gynaecology, paediatrics, psychiatry, physical medicine, etc.

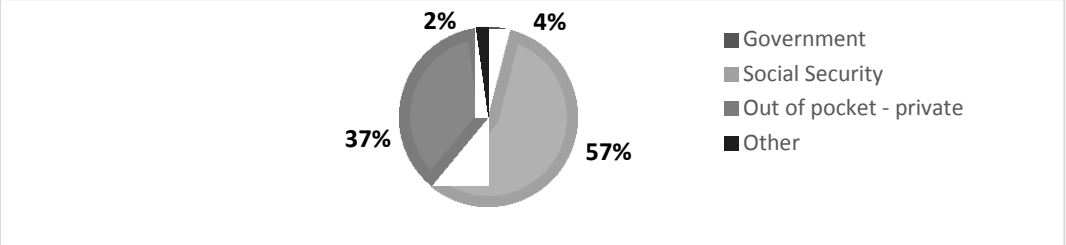
In 2008, there were 128 secondary health care facilities in Serbia. All together they had 40,908 beds (5.6 beds per 1,000 inhabitants), the average occupancy rate was 74.73%. Hospital days amounted to 11.15 million and an average length of treatment was 9.19 days.[93]

Tertiary health care facilities (clinical centres, clinics and institutes) offer highly specialised specialist consultative health services, they are involved in university education and scientific research activities.

[89] Izvjestaj izvrsenja financijskega plana za odinu 2014, Republic Health Insurance Fund, 2015, http://www.rfzo.rs/download/Izvestaj_izvrsenje_finplana2014.pdf , on 9.6.2015
[90] D. Vukovic, N. Pericic, Annual National Report 2010, Pensions, Health and Long-Term care, Republic of Serbia, 2010
[91] Health Insurance System in Serbia-quality, reform, financial sustainability, A. Gavrilović and S. Trmčić,2014
[92] Sanja Stošič, Nevena Karanović , Ekonomija zdravstvenog sistema Srbije: tekući problemi i promene, Vojnosanitetski pregled, Beograd, 2014
[93] OECD (2014), Health at a Glance: Europe 2014, OECD Publishing. http://dx.doi.org/10.1787/health_glance_eur-2014-en

Public funds for health care are currently allocated on the basis of the number of staff and/or beds at health facilities, which doesn't motivate providers to improve efficacy, quality of care and health outcomes.[94]

Graph 15: Sources of the Republic Health Insurance Fund in 2014



Source: Izvjestaj izvrsenja financijskega plana za odinu 2014, Republic Health Insurance Fund

In some special fields (such as dialysis, in vitro fertilization and hyperbaric chamber) private hospitals are hired to provide medical service to the patient based on the financial contract between hospitals as providers and the National Health Insurance Fund. This is seen as a good example of involving private sector in the reduction of long waiting lists in Serbia.

3.2. VOLUNTARY HEALTH INSURANCE

There are three kinds of voluntary health insurance in Serbia[95].

1. **Complementary health insurance (Dodatno osiguranje)**

   This kind of insurance is also known in the other analysed countries and is very common in Europe. It covers the expenses and services that are not covered by the compulsory health insurance. The complementary insurance is offered both by the state Health Insurance Institute and by private insurance companies. Those who choose this kind of health insurance can provide insurance for themselves, their children, spouses, or life partner. The monthly contribution for complementary health insurance is around 2000 dinars (16,6 EUR).

   Even though the prices of complementary health insurances are not high, only 2% of Serbians are complementary insured. This is because the out-of-pocket contributions

[94] Ekonomija zdravstvenog sistema Srbije: tekući problemi i promene, Sanja Stošič, Nevena Karanović, Vojnosanitetski pregled, 2014

[95] Kako funkcioniše dobrovoljno zdravstveno osiguranje, Saveti za osiguranje, http://savetizaosiguranje.com/kako-funkcionise-dobrovoljno-zdravstveno-osiguranje, on 15.5.2015

are inexpensive and affordable to the general population. Furthermore, people do not see any sense in paying the contributions for the complementary health insurance as they will have to pay additional money for the service any way (doctor-client corruption).

2. **Parallel health insurance (Paralelno osiguranje)**

   Parallel health insurance covers the expenses and costs of special medical treatments for medical conditions, which are otherwise covered by the compulsory health insurance, but the treatment is exercised in a different way. This kind of health insurance is also offered by both the state Institute and by the private health insurance companies.

3. **Private health insurance (Privatno osiguranje)**

   If you are self employed or unemployed (and are thus not insured by the compulsory health insurance) you may choose to be part of a private healthcare scheme. This kind of health insurance is obviously only offered by the private health insurance companies.

   There are not many private practices in Serbia providing medical care. The small amount of private health clinics in Serbia are not well developed. This is because the majority of citizens can not afford to pay extra insurance to help fund the private clinics. Today the quality of service is improved a lot through regular controls by the health, sanitary and medicine inspectors of the Ministry of Health and by Accreditation Agency.

4. CHALLENGES

1. Serbia's late transition led to major economic and structural issues. Extensive reforms and strategic planning are needed in order to increase productivity, competitiveness and country's economic growth.
2. Lack of preventive policies and unhealthy lifestyle are resulting in high prevalence of chronical diseases.
3. Serbia's health care system is riddled with corruption and is causing distortions in the system.
4. As these three challenges have severe impact on the system, they need to be addressed prior to any other reform regarding particular issues in the healthcare scheme.

4.1 ECONOMIC AND STRUCTURAL CHALLENGES

a.) Wider economic challenges

Despite a similar percentage of social security contributions intended for health among observing countries and a high percentage of GDP spent on health, the health expenditure per capita in Sebia is low. Consequently, a high level of out of pocket payments is present, indicating an underdeveloped health system. This is due to the low average salary of only 366 € and high unemployment rate.

Table 20: Comparison of selected economic parameters

	Average salary (net)	Unemployment rate	Health expenditure per capita	% of GDP for Health care	Social security contributions for health
EU28	1.837 €	9.7%	2.193 €	8.7%	
Croatia	735 €	17.5%	1.133 €	7.2%	15.0%
Slovenia	1.092 €	9.3%	2.003 €	9.4%	12.9%
Serbia	366 €	19.2%	603 €	10.5%	12.3%

Source: Own analysis, Poslovno poročilo ZZZS 2014, Izveštaj HZZO 2014, The World Bank, Statistički urad Republike Hrvatske, Statistički urad Republike Srbije, Statistični urad Republike Slovenije

b.) Low amount of collected funds as consequences of the low percentage of contributors.

Only about 50% of all insured persons actually contribute for health care, while the other half are either excused from payments or just not willing to pay[96]. This leads to the health system being even more underfinanced as it already is. Contributors to compulsory health insurance scheme are only the employed, self-employed and farmers. Insurance fee for the rest of the insured persons (almost 50%) is covered by the state. Even though the population (age) pyramid of Serbia is very similar to the one of Slovenia, Serbia continues to excuse it's retirees form paying the contributions for their health insurance.

If Serbian retirees would contribute the same % to compulsory HI as Slovenian do (5,96%), that would have annual fiscal effects in amount of roughly 300 mil €[97].

[96] Massive protests followed the decision on the Government, that persons who will not pay their social contributions will be left with out health insurance, forcing it to further soften the criteria to be excused from paying the contributions.

[97] Own analysis

c.) Lack of monitoring

While doing our research we encountered the problem of finding consistent data on Serbian health system statistics, which indicates poor monitoring of the system from the state (or any other institution for that matter). As monitoring is one of the most important factors in strategic planning and supervising the results of planned reforms and strategic goals, the lack of monitoring hampers the countries ability to recognise the current problems of it's health system and unable it to plan the necessary reforms.

The table below shows data from various sources on health expenditure per capita in Serbia in 2014. Even though some of the sources are otherwise considered as very credible (WHO, WB), we found significant differences in data.

Table 21: Comparison of health expenditure per capita data dependent of various sources

Source	**Health expenditure per capita**
WHO	891 €
World bank	429 €
Serbian analysis*[98]	379 €
Own analysis[99]	603 €

d.) High corruption rate

Although corruption is a regional issue, it is most notable and present in Serbia, causing the already insufficient funds to be allocated faulty. As shown in the table below, Serbia ranks the worst out of analysed countries in international corruption index (CPI) which demonstrates the level of corruption present in each country.

[98] A. Gavrilović and S. Trmčić, Health Insurance System in Serbia-quality, reform, financial sustainability, Beograd, 2014

[99] Based on the GDP, Statistical Bureau of Serbia

Table 22: CP index and comparison of selected countries for 2104

	CPI score*	Rank
EU28	64	
Slovenia	58	39
Croatia	48	61
Serbia	41	78

**Corruption Perception Index – Transparency International*

Source: Transparency International

Main reasons for high corruption rate are low average doctor salaries (creating a need for additional income -), long - standing national practice and poor regulation (loopholes, small penalties for corrupters).

Corruption in health is present at all levels. Corruption on *macro level* can be found mostly in the field of national drugs prescription and public procurement projects, which is also a consequence of poor procurement laws. *Mezzo level* corruption is present due to lack of inspection and control within health institutions and is resulting in underprice "sellout" of used medical devices. Corruption on *micro level* is mostly expressed as doctor – patient corruption (skipping waiting lines, better care) and is present because of underpaid and overburdened medical staff and inadequate salary system. The table below shows just how low the average doctor salary is, compared to other observed countries.

Table 23: Average net doctor salary

	EU28	Slovenia	Croatia	Serbia
Average net doctor salary	2.819 €	1.800 €	1.178 €	654 €

Source: national statistical offices

4.2. POOR NATIONAL HEALTH STATUS

Out of all the analysed countries, Serbia has, by far, the worst national health profile, which can be attributed to lack of national preventive programs and to lack of public awareness of the importance of healthy lifestyle. Indicators of poor national health profile are listed in the table below.

Table 24: Comparison of health profiles of selected countries

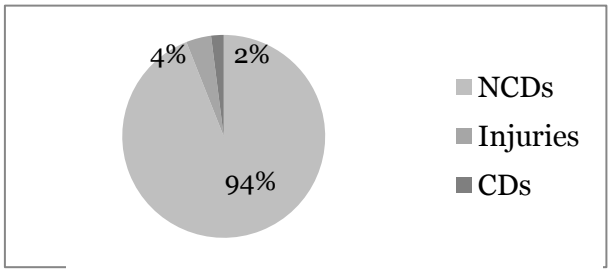
	EU 28	Slovenia	Croatia	Serbia
Obesitiy	16,7%	16,8%	20,4%	24,8%
Regular smoking	22,8%	20,5%	35%	26,2%
Physical inactivity	39%	31,2%	26,7 %	70,9%
Diabetes prevalence	6,0%	7,5%	5,6%	8,9%
Cancer survival rate	49%	45%	45%	32%
Stroke*	51,6	58,1	106,8	136,4
Infant deaths**	4,4	2,5	3,6	6,2
Life expectancy	78,5	79,5	76,7	74,5

*per 100.000
**per 1000 live births

Source: WHO, 2014

In Serbia non-communicable diseases (NCDs) are estimated to account for 94% of total deaths, which is high above the European average of 80 %.

Table 25: Share of NCDs as percentage of total deaths



Source: WHO. Serbia health profile. 2014

57 % of all NCDs related deaths are a result of cardiovascular diseases out of which 24% are cancers. The remaining 19% consists of diabetes, respiratory diseases and other NCDs.

Poor national health profile can be directly linked to higher costs of the health system (as a bigger percent of the population seeks medical services) and as shown above, leads to lower life expectancy. The "outcome" of health system is the biggest indicator of the quality services provided since the main mission of health system is to maintain a healthy population.

4.3. OTHER ISSUES

Several other issues will require attention. However, it is only after the afore mentioned challenges have been adequately addressed, that the correction of other issues can have any effect on the health system of Serbia.

a.) Unnecessary health consumption

Due to inappropriate payment structure within the health system, hospitals are inclined to keep their patients hospitalized for as long as possible (hospitals get paid for each day of care of the individual patient) and the primary health care institutions are paid for every patient they examine, which motivates the doctors to advise their patients to overuse medical care. This increases costs in health and causes long waiting periods for most commonly used examinations and treatments.

Table 26: Average length of stay in hospital and number of doctor consultations per capita

	EU 28	Slovenia	Croatia	Serbia
Average length of stay in hospital	7,8	7,5	9,1	8,8
Number of doctor consultations per capita	6,4	6,2	6,9	7,8

Source: WHO, 2014

b.) Number of educated medical personnel

Ministry of education and Science of the Republic of Serbia has no authority over medical schools and there is no estimate of how many doctors and other medical personnel are needed annually, which results in exes of educated medical personnel. The consequences of which are mounting pressure on the government to hire more doctors (as there are many unemployed) which, at the same time, prevents the doctors form requiring a higher salary (as there are so many of them), compelling the top medical personnel to work abroad.

Table 27: Number of educated medical personnel

	Doctors	Nurses	Dentists
Slovenia	2,5	8,2	0,6
Croatia	2,8	5,7	0,7
Serbia	3,1	6,3	0,2

Source: Finansijski izvještaj za 2012, Institut za javno zdravlje Srbije

c.) Poor dental care

As we have already stated[100], dental care is not covered by compulsory health insurance (except for the children, students and pregnant women) and thus requires a special insurance agreement or out of pocket payments. The prices of dental services are relatively high compared to the other general medical services and are generally not perceived as necessary as the general medical services (only 17 people had dental insurance in Serbia in 2012[101]). This results in low standard of dental care and low number of dentists (as the upper table shows).

5. REFORM PROCESS

Serbia lacks strategic planning and is struggling to overcome the issues, also with the help of international organizations.

5.1. DOMESTIC EFFORTS

Although there is a general lack of strategic reforms, some issues are being addressed, however, most of the final legal acts are vogue and do not bring any real changes. Some of the most recent reforms aimed to improve the rigid procurement procedure (the Public procurement act), more efficient use of funds (Strategy for development of health until 2015) and eradication of micro-corruption (anti-corruption initiatives).

[100] 3.4 Provision of services.
[101] Finansijski izvještaj za 2012, Institut za javno zdravlje Srbije, http://www.rfzo.rs/download/finplan2012.pdf, on 9.5.2015

5.2. INTERNATIONAL HELP PROGRAMMES

a) EU support to health care in Serbia[102]

The EU, working through program managed by the European Agency for Reconstruction, has played a significant part since 2000 in helping the Serbian health sector to move forward. The total sum of EU support so far is upwards of 100 million.

The EU help program consists of:
1.) Emergency assistance to address a crisis in the health sector (critical shortages in key medicines and medical supplies)
2.) Programs designed to help rebuild some of the health sector infrastructure (hospitals and the blood transfusion service)
3.) Emphasis on supporting institutional reform: the past six years have seen significant progress in areas such as reform of the National Health Insurance Fund, developing preventative health care and public health education.

EU supported the Ministry of Health in re-establishing the concept of preventive health services. Initially, this led to the creation of 25 preventive health care centres
The Agency supported the Ministry of Health in preparing a financing proposal to the European Investment Bank (EIB) for an emergency investment package. The EIB provided a loan of 50 million EUR for the refurbishment of 20 regional hospitals and the National Vaccine Institute.
The Agency funded the creation of a modern electronic health record, similar to those found in many EU countries, for the transfer of data between different health facilities. It enables the health financing system to better monitor and control expenditure.

The final goal of the above-mentioned programs is to follow the highest standards of European health practices, to work on improving primary care, better and more efficient implementation of regulations, elimination of unnecessary administrative procedures, to speed up entry of drugs into the market and improve competitiveness.

b) The World Bank support to health care in Serbia

The World Bank has already carried out two projects to support and stimulate legislative reforms in the field of health care.

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[102]EU supoort to health care in Serbia, European Agency for Reconstruction, September 2013, http://ec.europa.eu/enlargement/archives/ear/sectors/main/documents/HEALTH_SERBIA_EN.pdf on 13.5.2015

The first Serbia Health Project[103] was aimed to supported technical work for legislation enabling performance-based provider payments (2003 – 2009, extended with additional financing until March 2012).

The Second Serbia Health Project[104] was adopted in February 2014 and will support the improvement of health care financing and efficient purchasing of pharmaceuticals and medical products.
The objective of the Second Health Project is to contribute to improving the efficiency and quality of the public health system of the Republic of Serbia through the strengthening of:
(i) health financing, purchasing, and maintenance systems; and
(ii) Quality improvement systems and management of selected priority non-communicable diseases.

There are four components to the project = it is worth 40.00 $
1. Improvement of health financing (to improve the quality, efficiency, and transparency of HIF financing for primary care and hospitals)
2. The efficient purchasing of pharmaceuticals and medical product
3. The strengthening quality of service delivery
4. Monitoring and Evaluation and Project Management

The project is due until 2019.

It is essential to mention that a health care reform will not solve all the problems in the health system overnight because the state has no sufficient money to finance all the rights to health care prescribed by the law.

[103] The World Bank, Projects & Operations, http://www.worldbank.org/projects/P077675/health-project-serbia?lang=en, on 13.5.2015
[104] The World Bank, Projects & Operations, http://www.worldbank.org/projects/P129539/second-serbia-health-project?lang=en, on 13.5.2015

6. CONCLUSION

Serbia clearly has the least developed health system out of the three analysed countries. In addition, even though certain reforms are taking place, Serbia needs to work on the implementation of its regulations. Primarily the country needs to tackle structural issues (corruption, lack of prevention, low contributions, lack of monitoring) and only after that, can Serbia deal with specific challenges (low number of doctors, waiting lists, poor dental care, unnecessary health consumption) that are specific but similar to those of more developed health systems such as Slovenian and Croatian. While addressing the aforementioned issues, Serbia should also focus on ensuring strict control and monitoring of the health system in order to enable a strategic approach to the health care issues and allocate a bigger percentage of funds towards disease prevention and awareness to improve its poor national health status.

CONCLUSION AND FINAL COMMENTARY

Despite their common origins (the Yugoslavian health care system), the analysed systems are very diverse, as the pace and direction of their development were and are different. General overview of the given health care systems shows that there are some common trends and challenges in the region. The long-term sustainability of the systems is questionable and the countries are seeking the right policies to contain costs and improve the quality of service provided. Key reform issues include identifying ways to encourage additional investment in the health sector, defining formal benefit packages and the role of private insurance. Slovenia currently offers the best health care system out of the three, as it offers high quality medical services to the general population. Besides that, the system is closed and unfavourable for private investors. It will be interesting to observe, how the new package of reforms will affect the health system. Abolishment of complementary health insurance will cause deficits, which will have to be recovered in some way. As it is clear that the state by itself will not be able to be the only financier of the health system, it is expected that the market will open up for private insurance companies. However, up to this point it is impossible to say, how the system will be reformed as judging by previous experience change is a rare occurrence in Slovenian health care.

Croatian HC system is in the midst of comprehensive reform process, trying to open the system to private investors and cut unnecessary health expenditure, thus making the system more sustainable. The health care system by itself is interesting and our team enjoyed the most while studying the specific dynamics of the field. List of reforms, which Croatia plans to introduce is long and comprehensive, we are eagerly looking forward to see our southern neighbours prosper economically as well as improve their health care system.

Serbian HC system is lagging far behind Slovenian and Croatian as the system is fraught with issues. A major concern is the lack of drive for change. During our research, we concluded that Serbia firstly has to work on improving basic economic parameters that have an impact on health care system. We were also missing more determination in tackling corruption. With some help of the international community and the European Union membership as a medium term goal, it is likely that Serbian health care system will improve and become one of the drivers of health care development in the Balkans as it has long-standing tradition of excellence in the field of health care.

The challenges to be addressed in the region are therefore considerable. New approaches and new health technology in combination with aging of population place huge pressure on budgets. Success requires political support, technical and administrative innovation and changes in how financial resources and other assets are deployed in order to enhance the future and prosperity of individual countries and the region as a whole. It is only fair to say, that the team processed an extraordinary amount of data in a relatively short period while

also dealing with language barriers. Nonetheless, this tremendously interesting and disputable topic did not disappoint with its complexity, mainly because it has an impact on every citizen of the respective states that were the part of the research.

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