# Analysis and Comparison of Health Insurance Systems in Croatia and Germany

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#### **Abstract**

Health insurance is a fundamental type of insurance in the European Union. Every citizen of a country has to be registered at a health insurance provider's office. Depending on the country's legislative there are different systems of health insurance, especially additional insurance and the extent of rights for the insured people. As many Croatian people migrate to West Europe searching for better jobs, most of them together with their families, there are analyzed two health insurance systems, those in the Republic of Croatia and the Federal Republic of Germany. Analyzing the systems of the mentioned countries, several conclusions are made. The European Union seeks to equalize the systems to unify the rights at an international level in bilateral agreements and directives. In this paper similarities and differences of the systems in the observed countries were analyzed. Analysis and comparison were carried out on two examples – family insurance and student insurance.

**Keywords:** health insurance systems, Croatia, Germany, comparison, analysis.

### 1. INTRODUCTION

Health insurance is one of the fundamental rights of every citizen in the European culture. This insurance covers a part of the costs imposed by the need for health care of the insured person. Health care is a system of social, general and individual measures, services and activities related to the preservation and improvement of health, disease prevention, early detection of diseases and their treatment as well as medical care and rehabilitation<sup>1</sup>. Every individual has the legal right to health care and the possibility of achieving the highest possible level of health care. The purpose of this study is to compare two different health insurance systems and their range of services in EU member states. In addition to the research and the analysis of the two systems of health insurance this study has the aim to demonstrate the level of implementation of EU standards in the health insurance systems. This paper is going to prove the thesis that the "systems of health insurance in the states of Croatia and Germany have a number of similarities, but there are still areas that need to be equalized in order to ensure equal rights to all citizens of the EU member states have."

### 2. HEALTH INSURANCE IN THE REPUBLIC OF CROATIA

The Parliament and the Croatian Government brought the "Law on Compulsory Health Insurance" (NN 85/06, 105/06) in 2006. Some changes and corrections were published under the NN number 118/06.

<sup>&</sup>lt;sup>1</sup>Law on Health Care, NN 150/08 150/08, 71/10, 139/10, 22/11, 84/11, 154/11, 12/12, 35/12, 70/12, 144/12, 82/13, 159/13, 22/14, 154/14, čl. 2, čl.3, www.zakon.hr, 01.09.2015.

Modifying the law and becoming a member of the European Union in 2013, a new version of the Law on Compulsory Health Insurance was applied (NN 80/13). According to it, Health Insurance has to ensure that in the event of illness, injury and other accidents it covers the cost of treatment, supplying medication and medical devices, payment of the agreed financial compensation and a combination of payments and cover medical expenses.<sup>2</sup>

### 2.1. The system of health insurance in Croatia

In Croatia, the health insurance system is divided into compulsory health insurance and three forms of voluntary health insurance: supplementary health insurance, additional health insurance and private health insurance.<sup>3</sup> Compulsory health insurance ensures rights and obligations arising from basic health insurance according to the principle of mutuality and solidarity. Is carried out by the Croatian Institute for Health Insurance (hereinafter HZZO). The Act and Law define who are the users and which rights they have according to the Law.

## 2.2. Compulsory health insurance

Every Croatian citizen is obliged to register with the compulsory health insurance in the HZZO. All persons with permanent residence including foreigners with permanent residence are required to be registered in the healthcare system. In the case of foreign citizens with permanent residence, these regulations are valid unless specified differently by the international treaty. The same is valid for foreigners who come from EU member states or countries that are not members, such as people from abroad who perform an economic activity on Croatian territory. These people are often persons with temporary residence, employed by an employer based in Croatia. Individuals can register with the compulsory health insurance system only in the subsidiaries of HZZO. According to the Law on Compulsory Insurance, groups of individuals who are entitled to compulsory health insurance are: persons employed in Croatia; civil servants and employees; people on vocational training or training in Croatia or abroad; people on the territory of Croatia pursuing an economic activity such as private entrepreneurs, farmers, individuals which work within a family agricultural estate, clerics; retirees; foreigners who are insured based on private insurance; full-time pupils and students; spouses of deceased insured persons; people with the status of war disabled person; Croatian war veterans; persons which take care of disabled veterans of the war; persons serving military service; people on business trips for the purpose of international cooperation; parents who, according to a Special Law are classified as people who take medical care of their children; and family members of deceased or missing Croatian war veterans in accordance with special regulations on the rights of Croatian veterans.4

Also, people who earn income based on a contract or royalties are included. According to the regulation on contributions for compulsory insurance, individuals have rights if they have a recognized place of residence in Croatia and under the condition that they have paid contributions for compulsory health insurance for at least the amount of contributions calculated on the lowest base for calculation in the past five years.<sup>5</sup>

Children are insured through the parent until the age of majority and thereby acquire the status of an insured person. There are exceptions when a child remains insured through their parents after turning 18 years of age. The requirement for such insurance claims to determine that the child is permanently or completely unable to live on its own and the parent needs to agree to take care of their child. In addition to this regulation regarding children there are other people who may be members of the family of the insured, such as: a spouse; parents, if they cannot forbear themselves and depend on the insured child; grandchildren, brothers and grandparents, if they cannot support themselves and depend on the insured. These people acquire the right to be insured by insurance holders only if they have a permanent residence in Croatia and are not entitled on the basis of the above criteria. If a person does not meet any of these conditions it is possible to provide the insurance with the person paying contribution for insurance on his or her own. The costs are calculated on the amount of the lowest contribution for calculating contributions from the date of termination of the former insurance, and for the duration of 12 months.

<sup>&</sup>lt;sup>2</sup>Klasić K., Andrijanić I.: "Osnove osiguranja- načela i praksa", TEB-poslovno savjetovanje d.o.o., Zagreb, 2013., p. 115

<sup>&</sup>lt;sup>3</sup>Croatian Health Insurance Fund, www.hzzo.hr, 21.01.2016.

<sup>&</sup>lt;sup>4</sup> Ibid.

<sup>&</sup>lt;sup>5</sup> Ibid.

The insured has several rights which include primary health care, specialized health care, hospital care, the right to medications, dental, orthopedic and other aids, and the right to protection in other EU Member States. Croatian Institute for Health Insurance has defined what services are fully paid from the fund of compulsory insurance<sup>6</sup>. Among other rights it includes the overall health care of children up to age 18, preventive and specific health care of school children and students, preventive health care for women, monitoring of pregnancy and childbirth, the costs of dialysis treatment, transplantation of human organs, ambulance, nursing health care, medication from the basic list of prescription medications and laboratory diagnostics. There are medical procedures that are not included, such as: cosmetic surgery, experimental treatment, the treatment of acquired voluntary sterility, surgical treatment of obesity and similar treatments. Persons who are temporarily unable to work are also insured through the compulsory insurance.

Parents have the right of hospital accommodation with their children on the basis of a referral which the child is receiving for a treatment at the hospital. Full day and night accommodation are available to parents whose child is dependent on mother's milk, or a child treated for disability. The right of day accommodation without overnight stays is available to one of the parents, when a child is younger than five years and the child is taken care of because of an acute disease treatment. In the case of malignant diseases and diseases that threaten the life of the child, the parent has the right to reside on full-day and is not obliged to pay the expenses of staying with their child. Accommodation is also available when the child is in a special hospital for medical rehabilitation and accommodation or during his hospital treatment abroad.<sup>7</sup>

Compulsory health insurance provides care to its insured persons in case of injuries at work and professional diseases as well. The Croatian Institute for Health Insurance, as a provider of compulsory health insurance, has to be informed of the injury caused at the workplace. After reporting a injury, Croatian Health Insurance Fund can undertake activities as defined in the Law on Occupational Safety and Health (NN 71/14, 118/14, 154/14). As one of the special laws, it obliges employers to prevent the occurrence of injury or illness arising from activities in the workplace.<sup>8</sup>

## 2.3. Basic information regarding the voluntary health insurance

Voluntary health insurance belongs to the group of non-life insurances. There are three forms: supplementary, additional and private insurance. Supplementary health insurance is the insurance which provides coverage of part of expenses up to the full cost of health care of compulsory insurance, additional health insurance provides a higher standard of health care in comparison to the standard of health care of compulsory health insurance and a greater scope of rights of compulsory health insurance. Private health insurance provides health insurance to individuals residing in the Croatian territory who are not obligated to be insured under the Compulsory Health Insurance and the Law on Compulsory Health Insurance. Private health insurance is used by foreigners in the Republic of Croatia (NN 80/13). While the compulsory health insurance is provided by the HZZO, voluntary health insurance is carried out by insurance companies, which have received permission of HANFA (Croatian Financial Services Supervisory Agency), to implement and carry out this kind of insurance. Exceptionally, additional insurance is carried out by the HZZO, as well. It is important to note that the HZZO is thereby required to keep the funds separately. Voluntary health insurance individuals agree for themselves or for family members. Employers can also conclude such insurance for their employees. One of the conditions for being able to agree a voluntary insurance policy in a voluntary health insurance is that the person is registered in compulsory health insurance. Voluntary health insurance in Croatia belongs to the category of premium and the category of social insurance. Companies working within the field of insurance generally do a risk evaluation before concluding insurance, while HZZO does not. Voluntary health insurance belongs to the category of insurance compensation of damage, since there are settled costs of treatment or part of these costs. It includes insurance of the employer for damages resulting in injury at work or professional disease.

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<sup>&</sup>lt;sup>6</sup>Croatian Health Insurance Fund, www.hzzo.hr, 27.04.2016.

<sup>&</sup>lt;sup>1</sup>lbid.

<sup>&</sup>lt;sup>8</sup>Šijaković, A.; Kereta, J.; Kiš, D.: " Utjecaj dobrovoljnog dodatnog zdravstvenog osiguranja na stopu bolovanja i smanjenje troškova", Sigurnost 50, 2008., p. 386-387, www.hrcaksrce.hr, 5.12.2014.

Damages arising under this type of insurance are called those with "a long tail" which means that these are damages which are often slowly reported and it takes a long time to be resolved regarding the compensate for the damage. Those diseases are being often repeated.9

### 3. HEALTH INSURANCE IN GERMANY

In the German health insurance system it is necessary to distinguish two basic types of insurance: compulsory health insurance or "gesetzliche Krankenversicherung" and private health insurance. In addition to compulsory health insurance, it is possible to conclude additional health insurance that takes over the costs incurred in outpatient clinics of dental medicine, the costs of special nurturing and the treatment in hospitals and other costs.

## 3.1. Compulsory health insurance

In accordance to the Law on compulsory insurance<sup>10</sup>, each person in the Federal Republic of Germany must be recorded in to the Compulsory health insurance system of Germany. The Compulsory health insurance is defined as "gesetzliche Krankenversicherung" which means legally, compulsory insurance based on the principle of solidarity. The premium is calculated on the basis of gross salary. The government determined the contribution rate which is required to be paid to the insurer for health insurance in January 2009. 11

Any person with the status of employees, those who are learning for a job in a company, students, pupils and the unemployed must be registered in the system of compulsory health insurance. Any person whose gross monthly income is less than 4.575 Euros automatically is member of the Compulsory health insurance and there is no need to meet any additional requirements. 12 People who have higher incomes may voluntarily remain insured but do not need to if they do not want. There is also the option of acquiring the status of the insured via an insured member of the family: spouses, same-sex partners who are registered as a life partner and children, provided they live at the same address. Each insured person is entitled to the same range of services and insured guarantees of basic health care. Services included in the basic health care and services including prevention and treatment of diseases, health services related to contraception and health care related to abortion, health services related to early diagnosis and treatment of diseases. The insured chooses his or her general practitioner or some other doctor, and costs arising are billed directly to him or her as a doctor is a part of the compulsory health insurance system. Staying in hospital is paid for completely when hospitalization is performed in the nearest hospital that provides necessary medical services. Furthermore, it includes home care when there is the need, or it may be used to replace hospitalization. A part of the costs for some medication is paid from the fund. While some medications are charged for, meaning that an individual needs to pay part of the amount, there are medications that do not require additional payment.<sup>13</sup>

## 3.2. Underwriters of compulsory health insurance in Germany

In Germany, there are several different types of insurance and a large number of insurers that provide a fundamental health care. There are six insurance companies through which compulsory health insurance in Germany is provided and these are: AOK, IKK, EK, BKK, LKK and Knappschaftskassen. (Table 1)

Some companies have a co-operation with one of the insurers which provide special or greater and better range of services to its members and their family. While the options of AOK, EK and IKK are not related to a workplace and anyone can become member of it, the BKK insurance is related to the position and the workplace of the insured person. This means that the insurance is related to the company of employment. Some examples are "AUDI BKK" or "BOSCH BKK". The number of compulsory insurance providers has decreased over the years due to various events in the market such as mergers or acquisitions, in order to improve performance and maintain competitiveness in the market.

<sup>&</sup>lt;sup>9</sup>Klasić K., Andrijanić I.: op.cit., p. 143

<sup>&</sup>lt;sup>10</sup>Sozialgesetzbuch, gesetzliche Krankenversicherung: § 5 Abs. 1 Nr. 9 SGB V, § 21 KVLG 1989

<sup>&</sup>lt;sup>11</sup>KrankenkassenDeutschland, www.krankenkassen.de, 30.12.2014.

<sup>&</sup>lt;sup>12</sup>Gesetzliche Krankenkassen – Ihr Vergleichsportal, www.gesetzlichekrankenkassen.de, 01.09.2015

<sup>&</sup>lt;sup>13</sup>lbid.

Figure 1 shows that the EK, referred to as "vdek" and AOK are dominant in the market. They are followed by BKK, IKK are and others. Considering quite a large number of insurers on the market, it is not feasible to compare individual services. Instead, we use the example of the AOK for the German compulsory health insurance as the AOK is one of the leading insurers in Germany. Information of each insurance company are shown in percentage of market share in figure 1.

#### 3.3. Private insurance

Private health insurance is in Germany considered as an additional type of insurance .The most important difference between private and compulsory insurance is that private insurance is a better option for people with higher income as the premium is individually calculated based on the individual requirements. It is designed to fit the needs of individuals<sup>14</sup> and it is not subject to the principle of solidarity.<sup>15</sup>

The general type of private insurance is an independent insurance and is concluded without prior membership in the compulsory insurance. Private health insurance in this case represents a fundamental security of those persons whose income exceeds the income level to which they are no longer obliged to be insured through the compulsory insurance. The insured individual independently pays the invoice for health services and encloses bills to private insurers in order to get compensation of the amount. The insured of private health insurance has the right to freely choose doctors and hospitals where he or she wants to do the treatment. Patients have a number of opportunities that provide better health services such as free choice of medical specialists if necessary or better conditions of stationary stay in hospital like single room. If parents want to insure their children, they have to pay fees for each child but the fees are reduced. Membership of the private obligatory health insurance requires a certain amount of monthly income. The transition from the compulsory health insurance to the private health insurance implies that a person must have been insured through the compulsory health insurance, and that their income exceeds the limit of monthly income upon which the private health insurance becomes available. The return from the private obligatory health insurance to the compulsory insurance assumes that the person suffered a fall in level of income, which is caused by cancellation, change of job or reduction of working hours, or other legitimate reasons.

#### 3.4. Forms of additional health insurance in Germany

Due to a big diversity of additional options of health insurance in Germany, it is necessary to distinguish all the options and offers in selecting additional health insurance. Asking and consulting with the staff of the insurance company helps to choose the best service package that fully meets the needs of individuals. In the health insurance system in Germany there is a need for additional insurance that takes part in costs related to specific services. Therefore there are types of additional insurances that are formed especially for some services and treatments. In table 2 the most important types of additional insurance explaining their purpose are presented. <sup>16</sup>

#### 4. COMPARISON OF HEALTH INSURANCE SYSTEMS IN CROATIA AND GERMANY

Given the wide range of insurance types, features and options that can be compared, some topics have been selected, which are considered important in order to show a complete and comprehensive picture of the research results.

## 4.1. Comparison of the two systems

During the research and analysis of the collected data it was found that the health insurance systems largely match in the rights of the insured and the principles of action, but there are certain differences. The differences are listed in Table 2.

The insurance providers AOK, EK and IKK resemble the only Croatian insurer obligatory health insurance: the HZZO. Both systems share similar rules of membership, equal opportunity registration and acquiring the status of an insured person. Basic services are included in compulsory insurance of both countries and can be upgraded with additional or supplementary insurance, which guarantees the right to additional health services and taking over part of the costs related to the treatment of disease.

<sup>&</sup>lt;sup>14</sup>Portal "JustLanded", www.justlanded.com, article: "Die 2 Arten der Krankenversicherung", 22.7.2015.

<sup>15</sup> Ibid.

<sup>&</sup>lt;sup>16</sup>Internet portal of the company Rusteberg und HofstetterGmbH, www.zusatzversicherung.net, 27.7.2015.

BKK, as insurance providers, are related to companies in which the insured individuals are working. They have a similar range of services, expanded with regard to the workplace and the company but, in principle, based on the same law, on which all other health insurance products are based on in Germany. The similarity can be shown on the example of determining the amount of compensation that the insured person pays to the insurance provider or the HZZO. In Croatia, as well as in Germany, the amount of charge/premium is determined by the amount of income. The differences, however, can be found in the types and the extent of the additional insurance. Types of additional health insurances in Croatia are of a general character and an additional insurance to the compulsory health insurance. Supplementary health insurance takes over part of the costs not covered by compulsory insurance. In Germany, the system of additional insurance varies for each type of service and there can be concluded agreements on each type of insurance separately. One example is a specific insurance that replaces the cost of clinic treatment while staying there, or the dental insurance. Furthermore, extra visual aids are also insured. Higher premiums are, therefore, set due to a large extent of services included.

Every insurance provider in Croatia and in Germany has the right to design products or packages of services provided as additional insurance options. Therefore the price, range of services in the package and the components related to the insurance are defined within the limits of possibilities of regulations of insurers and with respect to the needs of future beneficiaries, i.e. the insured person. Croatian Institute for Health Insurance is the only insurer of the compulsory health insurance in Croatia, while in Germany there are numerous insurance providers that offer the possibility of acquiring the status of an insured person.

Furthermore, there are significant differences in type and way of acting of voluntary or additional insurance. Unlike voluntary additional insurance in Croatia, additional insurance in Germany are defined on specific areas of activity. There are several options that can be selected if necessary. Any form of additional insurance, such as additional insurance for dental medicine or additional insurance for stationary staying in the hospital have specific, defined range of services to be provided to the insured along with rights of services in accordance to the compulsory health insurance. Private health insurance in Germany represents an option of insurance which usually conclude people of higher purchasing power and people who are employed in the public service, while in Croatia on this basis there are ensured foreigners who are not obliged to register with the HZZO.

## 4.2. Analysis of the number of insured in Croatia and Germany

According to statistics of the Croatian Institute for Health Insurance for 2014, there were registered 4,345,435 people with the end of December 2014. <sup>17</sup>In 2014, the average number of active individuals was 1,448,737 of whom approximately 676,341 women and 772,396 men. There were 1,052,751 retirees and 25,131 people employed in agriculture. <sup>18</sup>In figure 2 these information are shown in percentages.

In Germany, there are numerous insurers that provide compulsory health insurance. When viewing figure 3 one can see the total number of insured persons which includes all insurance providers.

In Germany, by the end of 2014, 86.6% of the population is registered in the compulsory health insurance and 10.9% in private health insurance. There are no records with regards to how the rest of the population amounted to 2.6% is insured. This last mentioned group of population consists of individuals who have not recorded their status, persons receiving social assistance benefits and therefore basic health care based on the compulsory health insurance, uninsured persons and an undefined number of members of the Association of Health Care of the police and army.

Figure 4 gives an insight into the structure of compulsory health insurance in Germany. According to the registration information for July 2015 about 25% people who are required to be insured by compulsory health insurance are registered, while about 61% are insured voluntarily even though there are other options such as private health insurance. Furthermore, there are 14% retirees in the records. It is interesting to analyze how market share is held by some providers of health insurance, as shown in Figure 5.

<sup>&</sup>lt;sup>17</sup>Croatian Health Insurance Fund, www.hzzo.hr, 8.1.2015.

<sup>&</sup>lt;sup>18</sup>Business report HZZO for 2014., www.hzzo.hr,, p.1, 25.1.2016.

Data for July 2015 show that 24.5 million people insured by the AOK, 11.7 million by the BKK, 5.4 million at the IKK and 26.7 million at the EK (vdek). This confirms previous assertions that some of the health insurance providers on the market are more dominantly represented. AOK, as an independent health insurance provider has the largest number of insured, while unified view of all EK (vdek) also has a large number of insured. Since the BKK and IKK are generally related to the workplace or employment, it is clear that they occupy a slightly lower market share in comparison to the AOK and EK (vdek). All figures assume that at the time of data processing there are 70,737,516 of insured under the compulsory health insurance in Germany.

In figure number 6, the upper line shows the transition of insured under the compulsory health insurance to private health insurance while the lower line shows the opposite situation, the transition from the private into compulsory or obligatory health insurance. Data are presented in thousands. It is clearly visible that the number of residents who are changing types of insurance by becoming insured in a compulsory instead of private insurance is decreasing. This is due to high premiums in the private health insurance. Another option, the transition from the private to compulsory or obligatory health insurance is relatively constant and there are no extreme oscillations.

### 4.3. The financial aspect of health insurance

Financial data available on the official websites shows that the annual contribution for compulsory health insurance per capita is much higher in Germany than it is in Croatia. (Table 4 and Table 5)

Based on tables 4 and 5 it is possible to conclude that the price of compulsory health insurance per citizen in Germany is much higher. One reason is the higher standard of living in Germany and a higher level of development of the health system, which requires a higher billing for services. The price difference is also seen when viewed private health insurance in Germany, which is more expensive than the compulsory. (Table 6)

According to the data presented in the table it may be concluded that the private health insurance is available to that part of the population with higher income because of the higher costs.

#### 5. INTERNATIONAL STANDARDS AND THE EHIC CARD

At an international level there are a number of norms, standards and regulations that govern relations to various fields. In the field of health there are a number of contracts, tools and documents that facilitate international actions of physicians and health care professionals. One of those documents is the "ICPS-2" or the "International classification of primary care". This document provides procedure, treatments and other activities related to health as well as the extent of services are done according to the document on an international level. ICPC-2 deals with the documentation and issues related to family medicine and primary health care.<sup>19</sup>

The norm, or the mentioned classification, is trying to solve the problem of unification of codes and ciphers in treatment practices of primary care. There was a need to build an information system for primary health care. With the consensus and the decision of the professionals in this field, the Croatian Institute for Health Insurance, the Croatian Institute for Public Health and the Croatian Ministry of Health have accepted the ICPC-2 as data standards for the field of family medicine concerns for health care infants and young children, as well as for health care for women defined by this documents.

While it makes it much easier to handle data, it also facilitates to satisfy the needs of patients at a higher level. The classification not only allows, but also recommends and urges that specific codes should be defined for the reasons of seeking medical help, as well as the codes for medical procedures which are defined by the responsible persons at a local, national and international level. The same codes should be used in accordance to the needs of patients.<sup>20</sup>

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<sup>&</sup>lt;sup>19</sup>World Health organisation, WHO, www.who.int, 27.7.2015.

<sup>&</sup>lt;sup>20</sup>Krčmar, N.; Stevanović, R.; Tiljak, H.; Stanić, A.; Varga, S.; Not, T.; Jovanović, A.: "ICPC-2, Međunarodna klasifikacija primarne zdravstvene zaštite i njena primjena u zdravstvu Hrvatske", Acta Medica Croatica (1330-0164) 59, 2005; p. 267-271

The European Health Insurance Card (EHIC) is a card that proves the status of being insured at a health insurance in the EU member states. The card ensures health care and the right to health care that needs to be implemented due to sudden caused health problems that can be treated currently to every insured person who is staying in another EU country. The EHIC is issued within the health insurance. The card, valid for three years, is free and covers essential health care needs abroad. All rights of insured are listed in the directive which the Republic of Croatia has accepted. The directive was composed by the European Parliament and Council in 2011.<sup>21</sup>

#### 6. COMPARISON AND ANALYSIS OF THE FAMILY INSURANCE

Each year many Croatian people, most of them together with their families, migrate to Germany. Figures of the bureau of statistics in Germany show that in 2014 about 26.933 people migrated to Germany. In 2015 the number of migrations even increased to 37.710 people.<sup>22</sup> The bureau of statistics is mentioning that in 2014 there were registered 263.347 Croatian citizens living in Germany. Like the number of migration, the number of Croatian citizens living in Germany in 2015 increased as well to the amount of 297.895 people. 23 That is the reason why we choose to compare family health insurance in Croatia and Germany. It is possible to acquire the status of insured on the basis of family health insurance through a family member. For comparison with the Croatian Health Insurance Fund in the Republic of Croatia the AOK in Germany was chosen. In Croatia, there are rules to be followed precisely and these rules define who can be insured through another family member, such as spouses; children; parents; grandparents and grandchildren if they fulfill the following criteria: they are not capable of independent life and work, they have no means of subsistence and the policyholder is taking care of them.<sup>24</sup> In Germany, the rule requires that a person can insure another family member if certain conditions are met. A person who is insured by a family member can be a spouse, children grandchildren only if the policy holder supports them. The condition for acquiring the insurance in this manner is that both persons have the same address and that the income of the one to be insured by the policy holder does not exceed 450 Euros per month. Out of the above mentioned it can be concluded that family insurances in Croatia and in Germany are very similar. One difference is that in Croatia there can be insured parents, grandparents and siblings if they are not capable of living on their own. In general there are no extra charges or fees to be paid.

### 7. COMPARISON AND ANALYSIS OF THE STUDENTS INSURANCE

Croatian students are likely to study abroad in Germany. Mostly those activities are motivated by exchange programs like Erasmus+ which is the most widespread mobility program in Europe and partner countries outside the borders of Europe. Students can go and study in another country for a certain time thereby gaining knowledge and experiences. Besides Erasmus+ there is the opportunity of achieving grants to study. Universities might offer grants to foreign students to enable them to study at the university as foreigners. That is the reason why we choose to compare student health insurance in Croatia and Germany. In Croatia, each full-time student is insured as a student in a higher education institution if he or she has a permanent or temporary residence registered in the Republic of Croatia and is not assured in the compulsory health insurance on any other basis. This right can no longer be used by the end of the academic year in which the education of the student regularly ends or maximum eight years, if there is no other basis on which they are insured. <sup>25</sup>The status of a student is shown by a certificate of the status of full-time student by the higher education institution. In Germany, the situation is significantly different. A person who wants to enroll into program at a higher education institution must be insured first. Students can be insured on behalf of the family insurance or individually as a student what means that the insurance will be individual and that the student will have to pay a certain amount of money. Students older than 30 years can be insured on the basis of voluntary insurance for students older than 30 years and private insurance.

<sup>&</sup>lt;sup>21</sup>Direktiva 2011/24/EU Europskog parlamenta i vijeća od 9.ožujka o primjeni prava pacijenata u prekograničnoj zdravstvenoi skrbi

<sup>&</sup>lt;sup>22</sup> "Službene brojke – Evo koliko se Hrvata 2015.godine uselilo u Njemačku", Večernji list, 21.03.2016., www.vecernji.hr, 27.04.2016.

<sup>&</sup>lt;sup>23</sup>Federal Statistical office, www.deststis.de, 27.04.2016.

<sup>&</sup>lt;sup>24</sup>Croatian Health Insurance Fund, www.hzzo.hr, 10.1.2015.

<sup>&</sup>lt;sup>25</sup>lbid.

The way in which the insurance is provided depends on several factors, such as age of the student and the fact that they are enrolled at first time. A student may not receive income higher than 450 Euros per month if employed.<sup>26</sup>

#### 8. CONCLUSION

Health insurance is one of the fundamental rights of every citizen in European Union. It is divided into compulsory health insurance, which covers the basic health and medical care and takes part of the costs arising from necessary treatment and treatment under urgent procedure and on voluntary forms and into the additional or voluntary forms of health insurance that always take over part of the cost up to the total cost not covered by compulsory insurance and provide a wider range of services. In Croatia, the health insurance is divided into compulsory health insurance and three different forms of voluntary insurance: supplementary, additional and private health insurance. The only insurer of compulsory health insurance in Croatia is the Croatian Institute for Health Insurance, the HZZO. Additional forms of insurance such as supplementary health insurance are available in the HZZO as well as by other insurance providers. Additional insurance is available only with insurance providers that have the right to perform this type of insurance.

In the Federal Republic of Germany the health insurance system is divided into up to compulsory or obligatory health insurance and private health insurance. Compulsory health insurance is arranged by one of several insurance providers which are the AOK, EK, IKK, BKK, LKK and Knappschaftskassen. There is the option of membership in some of the insurances with connection to the workplace. There are several health care services that can be insured on behalf of insurances for specific needs. In Croatia, the compulsory insurance is concluded only at the Institute for the health insurance while in Germany there are certain insurance providers up to health insurance providers such as "the AOK" up to "BKK". Another significant difference is the option of contracting a compulsory health insurance in connection with employment, which is offered in Germany but not in Croatia. Private health insurance in both countries provides a wider range of services but to different groups of insured people. Voluntary insurance provide insurance companies in the Republic of Croatia (the exception is supplemental health insurance that is sold and by the HZZO as well) while in Germany all providers can perform additional health insurance as well. The wider extent of coverage is determined by the higher price of insurance, therefore is hardly available to individuals with lower income. Comparing the mentioned facts it can be concluded that there are differences in the systems in the observed areas of rights and obligations from the insurance, that are sometimes unknown for people who migrate from Croatia to Germany. But there are similarities which are indicating that the systems and specific areas of insurance in Croatia and Germany are adjusted according to international standards that are valid in the European Union.

<sup>&</sup>lt;sup>26</sup>AOK-Die Gesundheitskasse, <u>www.aok.de</u>, 10.1.2015.

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Table 1. Compulsory health insurance providers in Germany

AOK – Allgemeine Ortskrankenkassen	Not associated with the characteristics of the insured. Organized by places and parts of the country.
EK – Ersatzkassen	Not associated with the characteristics of the insured. Organized by places and parts of the country, formed as an alternative compared to AOK, IKK and BKK.
IKK - Innungskrankenkassen	Formed on the basis of a group of employees of the same or very similar crafts or profession.
BKK – Geschlossene Betriebskrankenkassen	Connected to the status the insured and his employment. Examples are "BAHN-BKK" "Bosch BKK" "Audi BKK" or "Linde BKK".
Knappschaftskassen	The initial form of compulsory health insurance which is tied to employment. Originally there were insured employees who worked in quarries, mines or similar jobs.
LKK – Landwirtschaftliche Krankenkasse	An expanded range of services for farmers. Benefits such as ensuring an auxiliary worker in agriculture in the case of sickness of the insured.

Source: designed by author based onwww.gesetzlichekrankenkassen.de, 01.09.2015.

Table 2. Types of additional insurances in Germany

Types	Extent of services	
Additional health insurance for dental	Taking over the costs of treatment at the dentist such as costs related to implants, prostheses,	
medicine	going to dental orthopedics or similar.	
Additional health insurance for	A better and wider range of services in hospitals, e.g. selection of rooms or choosing a doctor.	
stationary hospital stay		
Additional health insurance for different outpatient treatments	Covering of the costs of alternative methods of treatment, homeopathy or the costs coming along with the purchase of glasses or lenses for people with moderate vision problems or others.	
Additional health insurance for eyeglasses	Lower costs of extra payment for modern and comfortable eyeglasses with light glasses etc.	
Additional health insurance for during	Due to illness it comes to absence the usual income arising from employment. This insurance	
sick leave	pays the difference in the amount of payment of sick leave per day; co-financing a certain part.	
Preventive additional health insurance	Preventive examinations that compulsory health insurance does not include.	

Source: designed by author based on www.zusatzversicherung.net, 17.3.2016.

Table 3.Most important differences between the two systems of health insurance

Difference	Croatia	Germany
Providers of	One option, the Croatian	More options – AOK, EK, IKK,BKK etc. and private insurance
compulsory health	Health insurance Fund	
insurance	(HZZO)	
Compulsory health	Irrespective of the insured	There are insurance which are not and which are related to the place of
insurance - further	status, everyone has to be	employment or business.
details	registered in compulsory	
	health insurance of HZZO.	
Providers of	HZZO, and various	Each insurer offers types and forms of additional insurances with difference in
additional health	insurance companies	price and the extent of services involved.
insurance	directly or through	
	intermediaries (e.g. Croatia	
	Osiguranje, HP and etc.)	
Types of additional	For supplementary,	Private insurance;
insurances	additional and private	Additional insurance.
	insurance	
Area or extent of	Wider extent e.g.	Narrow specialization to a specific area.
insurance	supplementary insurance.	
Private health	Private Health Insurance is	Insurance for individuals with high income or people with defined characteristics.
insurance	a voluntary insurance	Private insurance has a wider extent than the compulsory insurances.
	intended for foreigners	
	staying in Croatia.	

Source: designed by author based on the information given in the paper

Table 4. Financial information on the compulsory health insurance in Croatia

	2013	2014
Total premiums paid	21.102.906.032,00 HRK	21.715.344.227,00 HRK
Number of registered insured	4349197	4345435
Amount per capita on an annual basis	4.852,14 HRK ≈ 642,67 €	4.997,28 HRK ≈ 661,89 €

Source: Annual finance report of the HZZO 2014., www.hzzo.hr, 17.3.2016.

Table 5.Financial information on the compulsory health insurance in Germany

	2013	2014
Total premiums paid	195.625.435.502,00 €	204.127.230.054,00 €
Number of registered insured	69870000	70290000
Amount per capita on an annual basis	2.799,85 €	2.904,07 €

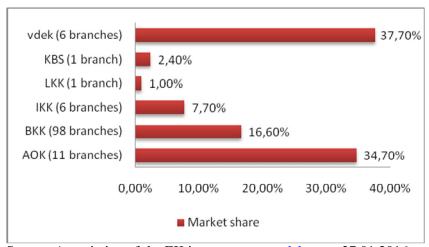
Source: Federal Ministry of Health, www.bmg.bund.de, 17.3.2016.

Table 6.Financial information on private health insurance in Germany

	2013	2014
Total premiums paid	36.050.900.000,00 €	36.324.500.000,00 €
Number of registered insured	8890100	8834400
Amount per capita on an annual basis	4.055,17 €	4.111,71 €

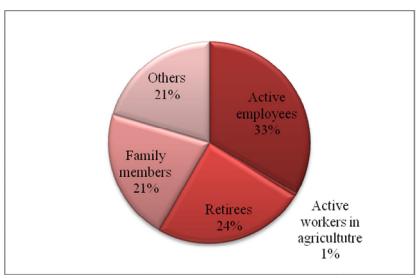
Source: Association of the private health insurance providers, www.pkv.de, 16.3.2016.

Figure 1.Number of insurers and their market share, 07/2015.



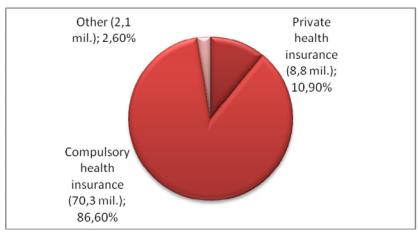
Source: Association of the EK insurers, <a href="www.vdek.com">www.vdek.com</a>, 27.01.2016.

Figure 2.Share of individual categories of insured in the total number of insured for 2014



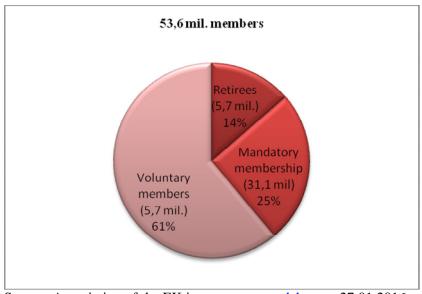
Source: designed by author based on the annual report of the HZZO for 2014., www.hzzo.hr, p.3.

Figure 3. The structure of the health insurance of the population of Germany for 2014



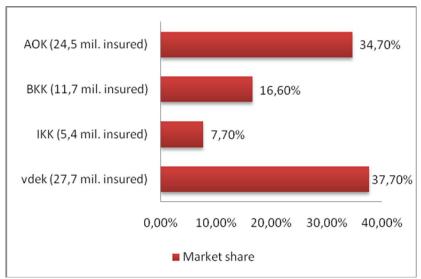
Source: Association of the EK insurers, www.vdek.com, 27.01.2016.

Figure 4.The structure of the insured in health insurance, 07/2015.



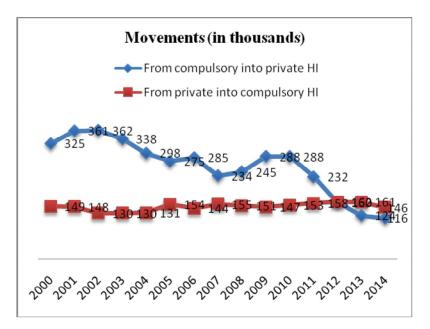
Source: Association of the EK insurers, www.vdek.com, 27.01.2016.

Figure 5.Market share of individual insurers according to the type of insurance, 07/2015.



Source: Association of the EK insurers, www.vdek.com, 27.01.2016.

Figure 6. Movement of the insured from one to another type of health insurance



Source: Association of the EK insurers, www.vdek.com, 27.01.2016.