

Czech University of Life Sciences Prague
Faculty of Economics and Management
Department of Business Administration



Bachelor Thesis

**Comparison of health care insurance system of Czech
Republic and Russian Federation**

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CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

BACHELOR THESIS ASSIGNMENT

Kamilla Kurskaia

Business Administration

Thesis title

Comparision of the health care insurance systems of Czech Republic and Russia

Objectives of thesis

The minimum wage in the Czech Republic, the minimum wage for Russia, benefits, the price of insurance, the price of services, the provision of services (quality, the possibility of an annual examination of the body, the ability to quickly receive services), Compare which is more optimal for usability depending on the specific area. Compare the insurance system in Russia with the insurance system in the Czech Republic to understand which system is more convenient to use.

Methodology

- Compare systems (how they work)
- Compare the cost of compulsory government insurance in relation to the minimum wage and average wage.
- Compare benefits for a specific group of people (unemployed, retired and disabled)
- Compare service delivery:

Quality – a comparison of the quality indicators of statistics in medicine (including the incidence rate, prevention, quality and treatment outcomes among a specific population over a specific period of time)

The proposed extent of the thesis

30-40 pages

Keywords

Health insurance, benefits, government insurance

Recommended information sources

https://en.wikipedia.org/wiki/Health_insurance

<https://www.bls.gov/>

<https://www.kancelarzp.cz/en/links-info-en/health-insurance-system-in-cz>

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>



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Declaration

I declare that I have worked on my bachelor thesis titled "Comparison of health care insurance system of Czech Republic and Russian Federation" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break any copyrights.

In Prague on _____

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Acknowledgement:

I would like to thank my thesis supervisor for his advice and support. I appreciate the time of **Ph.D Oldřich Ludwig Dittrich** spent correcting my work and directing my thoughts back on track. I am happy to study from such a great teacher, and qualified specialist as **Ph.D Oldřich Ludwig Dittrich**.

Comparison of the health care systems of Czech Republic and Russian Federation.

Abstract

The Bachelor Thesis is focused on the health care system of two different states. Healthcare system provides different resources to deliver health care services to meet the needs of targeted population. The system should be financed to the workforce, facilities and supplies available, a strong health system supposed to ensure that everyone is able to access high – quality healthcare without financial difficulties.

Its main purpose is to compare two healthcare systems based on different assumptions. The objective is supported by quantitative data, which is based on a questionnaire. Overall, the author describes the healthcare system of both states and what healthcare models are applied in those states. All findings are concluded at the end of the work, the hypothesis are tested by Cronbach's alpha, which is deeper mentioned in the methodology chapter.

Keywords: Health insurance, government, benefits, health, income, taxation.

Srovnání systémů zdravotní péče ČR a Ruské federace.

Abstrakt

Bakalářská práce je zaměřena na systém zdravotní péče dvou různých států. Zdravotní systém poskytuje různé zdroje pro poskytování služeb zdravotní péče, aby vyhovovaly potřebám cílové populace. Systém by měl být financován pracovní silou, dostupnými zařízeními a zásobami, silným zdravotnickým systémem, který by měl zajistit, že každý bude mít přístup ke kvalitní zdravotní péči bez finančních potíží.

Jeho hlavním účelem je porovnat dva zdravotnické systémy založené na různých předpokladech. Cíl je podpořen kvantitativními údaji, které vycházejí z dotazníku. Celkově autor popisuje zdravotnický systém obou států a jaké modely zdravotnictví jsou v těchto státech uplatňovány. Všechny poznatky jsou v závěru práce uzavřeny, hypotéza je testována pomocí Cronbachova alfa, která je hlouběji zmíněna v kapitole o metodice.

Klíčová slova: Zdravotní pojištění, vláda, dávky, zdraví, příjem, zdanění.

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1 Introduction

The health is one of the most vital and important factors in humans live. It, however, could be influenced by so many factors in both ways, positive and negative. Improving quality of health care system in each state is an important goal in medicine. There are certain indicators which demonstrate the efficiency and well-going systems of healthcare and help to improve the system in case of a need. The technological progress in medicine has saved many lives for the past 2 decades and still is developing. Each country applies a different healthcare system. The difference is due to the economic development of the country, the overall development of the system, the political environment, the structure of the population, but also the culture, customs and social environment. In any case, the health system is one of the most important components in the process of implementing health policy.

Effective functioning depends on the amount of investment expenditure in the healthcare system, sufficient economic strength of the country and, last but not least, political will. The main goal of the entire complex mechanism is to ensure and satisfy the health needs of the country's population.

The recent Covid-19 pandemic has severely affected the healthcare system of both states and certainly disclosed weak points such as: obsolete facilities, shortage of essential supplies, poorly paid staff, which eventually has helped the states to readjust the system and make slight changes. However, the healthcare system of Czech Republic and Russia Federation differs from so many angles. For example, the healthcare system of Russian Federation is not developed enough to be able to provide a care for a vulnerable population. Hence, the thesis research is focused on comparing the healthcare systems of both states.

The bachelor thesis is divided into two parts, theoretical part, and practical part. The theoretical part describes the healthcare system of both states, waging system and taxation system. The calculations are made in CZK, the minimum wage of both states.

Whereas practical part is focused on gathering data based on a survey.

2 Objectives and Methodology

2.1 Objective

The objective of the thesis is to analyze and compare the healthcare system in both states, Czech Republic, and Russian Federation. The comparison of both stated and their healthcare systems will be described in detail, the healthcare systems.

2.2 Methodology

In order to evaluate and compare the healthcare systems of both states, Russian Federation and Czech Republic, the author uses the statistical test of Cronbach's alpha. There are however 5 hypotheses to be tested. The author uses a scaling method in a survey which consists of 8 questions. Based on the conducted survey the author will be able to run a Cronbach's alpha test which is interpreted in the following way:

Table 1: Cronbach's alpha

Cronbach's alpha	Internal Consistency
$\alpha > 0,9$	Excellent
$0,9 > \alpha > 0,8$	Good
$0,8 > \alpha > 0,7$	Acceptable
$0,7 > \alpha > 0,6$	Questionable
$0,6 > \alpha > 0,5$	Poor
$0,5 > \alpha > 0,4 ; 0,3 ; 0,2 ; 0,1.$	Unacceptable

Source: Own processing, based on [J. Med. Educ \(2012\)](#).

The Cronbach's alpha is used to determine the consistency and reliability within internal group, or sampling. Another words, based on the scaling method of answers where its measures are from (1 to 5), strongly agree to strongly disagree. The number of observations for each state is 110 people. Based on their answers, the author will be able to either confirm/reject the stated hypothesis.

Hypothesis:

- The more money invested into the healthcare system, the better quality of services the citizens will receive.
- The healthcare system of my country is developed very well.
- The system needs an improvement from educational side, more qualified personnel is needed in my country.
- For the most part, I go to private doctors, where fees are higher than usually, however, quality is also worth it.
- In urgent cases, if an ambulance car reacts very quickly, the chances to save a person's life is much higher.

3 Theoretical Part

In this part, the author plans to describe the theoretical definitions of health, health care systems of both state and their advantages and disadvantages. Yet, it is important to mention the

3.1 Definition of Health and policy of health care

In a professional literature “**health**” is defined as a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity. – (WHO, 1948)¹. According to (Lawrence, O. Gostin., 2016)² public health is defined as “the science and the art of preventing disease, prolonging life and promoting physical health and efficiency through organized community efforts for the sanitation of the environment, the control of community infections, the education of the individual in principles of personal hygiene, [and] the organization of medical and nursing service for the early diagnosis and preventive treatment of disease”.

(Institute of Medicine, 1988)³, proposed the most precise definition “ Public health is what we, as a society, do collectively to assure the conditions for people to be healthy”.

The health is affected by so two main factors, health factors and non-health factors. Among the non-health factors include the natural factors and social environment. The other type of health factors includes the availability of qualitative health care system.

The policy of healthcare is primarily a collection of political activities that have an impact on the health of various groups of residents of a state. In each state the health policy is different. Its function completely depends on social order and economic strength of the country, its cultural aspects and population. The health policy can be defined as a set of rules and

¹ WHO - World Health Organization (1948): Definitions of the “Health” and “Health care system. [online]. [Accessed: 09-07-2022]. Available at: <https://www.who.int/about/definition/en/print.html>

² Lawrence, O. Gostin (2016): Public Health Law. ISBN: 9780520958586, Published by: University of California Press.

³ Institute of Medicine (1988): The Future of Public Health. [Washington]. D.C. National Academy Press.

regulations, established by a state, which aims at providing safety and support of populational health. There are two main activities which are performed by the state. One of them directly focused on providing the treatment itself, remove changes and restore the health. Additionally, activities which are focused on supporting the health protection and its promotion. The main criteria of health policy are the county's economic situation and country's population. The health status of the population determines the development direction of health policies and what further measures are needed to be taken (Sandier, S. & Paris, V & Polton, D., 2004)⁴.

Some individual states solve problems and to what extent the state is responsible for their residents, what model should be chosen to provide the health care, how to apply the market mechanisms in the framework of health system, looks for optimal solutions if public and private matters, rights and obligations of participants in the health care process.

However, to implement all the mentioned health policies in a healthcare sector, the willingness of political side is needed. There are, however, other aspects that a state needs to consider, to achieve the set goals. The next consideration of a state is the purposefulness of the state actions including subjects of economic and social policy.

There are 3 main pillars of health policy such as: ethic, medicine, and economy. Those pillars should work all together, because the connectiveness of those pillars directly affect the health of the population and its future development. The health policy can function in case when, all the needed economic conditions are fulfilled. Especially, when it can function when a network of health facilities and institutional structures are build. (Rokosová & Matthew, G., 2009)⁵.

General aims of the health policy should fulfill the following tasks:

- preserving and improving the health status of the country's population
- efficient allocation of resources

⁴ Sandier, S, Paris, V & Polton, D. (2004): Heath Care Systems in Transitions. [online]. [Accessed: 09-07-2022]. Available at: https://www.euro.who.int/_data/assets/pdf_file/0009/80694/E83126.pdf

⁵ Rokosová, M & Gaskins, M. (2009): Health Systems in Transition. Czech Republic. [online]. [Accessed: 09-07-2022]. Available at: <https://www.who.int/europe/home?v=welcome>

- availability of health services to all citizens.

3.2 History of healthcare policy

Healthcare system as a system was a response to the healthy needs of the population. The basics of the healthcare system was created in the first half of the 19th century. As the scientific field, the health policy was born after the second World War. It was the reaction to the consequences of the second world war. The creation of the policies was also a reaction to the development of mathematics, technology, and medicine. In Czech Republic, in 1888, the existence of the common health care insurance. Insurance operated on the principles of solidarity, the so-called Bismarckian model, this system is still applicable to the present days. (Gladkij, I. & Strnad, L., 2002)⁶.

Healthcare and health problems have grown to the point that it has started to be solved on an international scale. Due to this situation, this led to the creation of World Health Organization (WHO). It has been established on April 7th, in 1948. The WHO constitution states that its mission is “to achieve the highest attainable standard of health for all people” (WHO, 1948).

3.3 Healthcare system

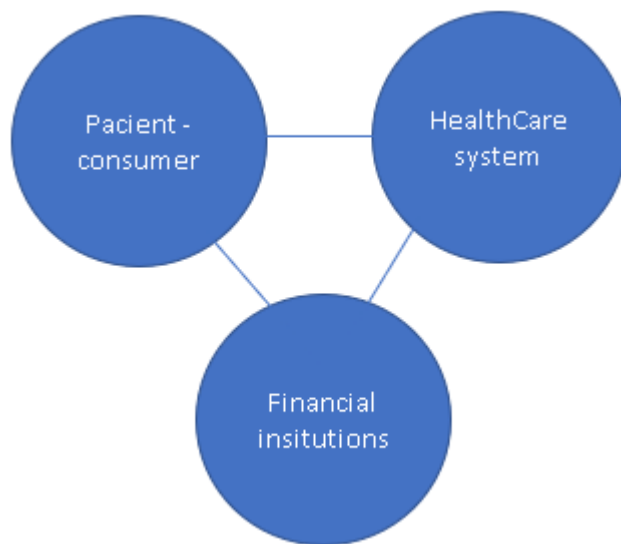
The healthcare system represents the complex process where various groups are involved, under certain conditions and subjects, in order to secure the process smooth and easy. It represents the relationship between the private sectors, financial institutions of a state, healthcare sector and officials who are responsible for such sectors, in this framework, the functionality of healthcare system is carried out. The perfect healthcare system should ensure:

- the quality of health care and its availability to all
- equal conditions for all participating entities
- a balanced economic structure

⁶ Gladkij, I & Strnad. L (2002): Healthcare policy, health and healthcare system. ISBN: 80-244-0500-8.

However, each state implements different healthcare systems. The difference is given by economic development, an overall development of the system, political environment, structure of the population, cultural factor, and their customs. The healthcare system belongs to one of the most important processes of healthcare policy. The effectiveness of this sector depends on allocation of investments to the healthcare system, sufficient economic development, and a will of politicians. Finally, the main goal of the entire complex mechanism is to ensure and satisfy the healthy needs of the population.

Figure 1: Subjects of the healthcare system



Source: Own processing, Excel.

Patient

It has the role of a consumer in the whole system. The patient consumes health care and at the same time participates in the financing.

He has rights and responsibilities. According to the Charter of Fundamental Rights and Freedoms, basic rights include the right to health care, the choice of a medical facility and attending physician and health insurance company. It is the patient's duty to contribute to public health insurance.

Financial institution

State (public state budget) + health insurance system (public AND private insurance).

Healthcare providers

Healthcare facilities together with the rest of the network of healthcare providers – state, region, municipality, physical and legal entity facilities.

It varies according to the status and whether it is a public or private facility.

We divide medical facilities into:

- state and non-state
- inpatient and outpatient
- contractual and non-contractual

3.3.1 Financing the healthcare system

Capitation payment are payments agreed in a capitated contract by a health insurance company and a medical provider. This type of payment is fixed and pre-arranged monthly. Payments are received by a physician, hospitals, clinics, and another institution where patients are registered within a healthy plan, or per capita. The above-mentioned institutions receive payments regardless of whether a patient has visited a doctor multiple times or not even once, the payment is still received (Beveridge, W., 2000)⁷.

Payment based on the performance of a doctor. However, nowadays, people live in a society where, private doctors, practitioners charge a certain amount of money. That amount of money can be higher than in a district hospital, which eventually creates inefficient consequences for the healthcare system. As an example, a doctor charges a patient and sends its invoice to the insurance company, for some reason, the insurance company might consider the amount to be higher than usual and deny the payment, where eventually it has a negative

⁷ Beveridge, W (2000): Social Insurance and Allied Services. ISBN: 978-1013964510. Published by: Hassell Street Press.

effect on the whole healthcare system. (Folland, Sherman & Allen, C & Goodman. S & Miron, S., 2013)⁸.

Payment on the base of working hours, this type of payment is directly linked with the official employee contract, where a certain number of hours needed to be worked in order to receive the payment (Krebs, V., 2015)⁹.

Payment for the diagnosis – related groups. This type of payment is also economically ineffective. This type of payment is focused on a certain group with the common diagnosis, which requires the same treatment, hence the cost for the treatment is equal.

Payment for the treatment day. For this type of payment involves the costs of treatment which were allocated only for one patient. The costs of material, transportation of patient, food for patient, laundry, facility services related for the maintenance of the building where the patient lives and etc. This type of payment motivates the system to hospitalize the patient as soon as possible, in urgent cases (Beveridge, W., 2000).

Another type of payment is the patient participation. This type of payment is a necessity, due to insufficient funds of government to cover the healthcare sector, in some cases the patient's financial participation is desirable. This type of payment is based on cash payments or from their patient's private insurance. Co-payments are understood as co-payments for medicines, materials, medical devices, but also some procedures performed by doctors, often at dentists. Furthermore, the patient himself pays for above-standard care or care that is not a treatment, but an aesthetic matter. There are also regulatory fees for visiting a doctor, prescribing medication, and staying in a medical facility. Co-payment rates vary from country to country (Zlámál, J & Bellová, J., 2013)¹⁰.

⁸ Folland, Sherman & Allen, C & Goodman. S & Miron, S. (2015): The economics of health and healthcare 7th edition. ISBN: 978-0-13-277-369-0. Publisher: Pearson.

⁹ Krebs. V. (2015): Social politics. ISBN: 978-80-7478-921-2. Publisher: Wolters Kluwer.

¹⁰ Zlámál, J & Bellová, J. (2013): Healthcare economy. ISBN: 978-80-88129-03-5. Publisher: Národní centrum ošetrovatelství a nelékařských zdravotnických oborů.

3.3.2 Classification of the healthcare systems and their financial models

Classification of the healthcare systems can be divided into several financial models, and each of the model is financed differently:

- Taxation system, by a state – Beveridge and Bismark's models are perfect examples of it, which are mainly used in Europe.
- Private insurance system (market model or liberal model).

3.3.2.1 Bismark's model

The system is developed on a public insurance which was well-thought by Chancellor Otto von Bismarck, in the late 19th, the system started functioning in Germany. The system is mainly based on the idea of solidarity, where every citizen should contribute to the insurance system a financial fee, regardless of usage of the medical attention. Based on the contribution of money collected from citizens, this, further is allocated to the wages of medical staff, doctors, and hospitals (Beveridge, W., 2000).

This approach is based on laws and regulations in each state. Healthcare system is financed by employees and employers, where each contributes a certain amount, which is converted in percentage. It is also characterized by the fact that outpatient doctors have concluded contracts with health insurance companies on the basis of which they provide medical services. The countries that apply this system are: the Czech Republic, Slovakia, Germany, Austria, Switzerland, France, Belgium, the Netherlands and the countries of the former Eastern Bloc (Zlámal, J & Bellová, J., 2013).

3.3.2.2 Semashkov's model

The creator of Semashkov's model was the first commissar for healthcare system in USSR, Nikolay Akexandrovich Semashkov. The model is based on the principles of equality and fair access to the health services. Everyone has the same conditions for using health care and its services. However, the system does not provide with an option of private health care services and people are not able to choose their healthcare providers. It is one of the ineffective disadvantages which the system has.

The model has been used in the Europe as well, after the second world war, especially, Hungary, Czechoslovakia, Romania, Bulgaria. However, in 80s, the system has changed. After the collapse of the USSR, the system has also failed in Russia. Today, the only country who uses the system is Cuba.

3.3.2.3 Market model

In the market model, the payments are done directly, the principle of solidarity is not applied in such system. The healthcare system is paid privately. The biggest disadvantage of the system is that some individuals might not have enough funds to afford a medical attention within this model. Another problem is that a health insurance company might even deny insuring someone and has the right to do so.

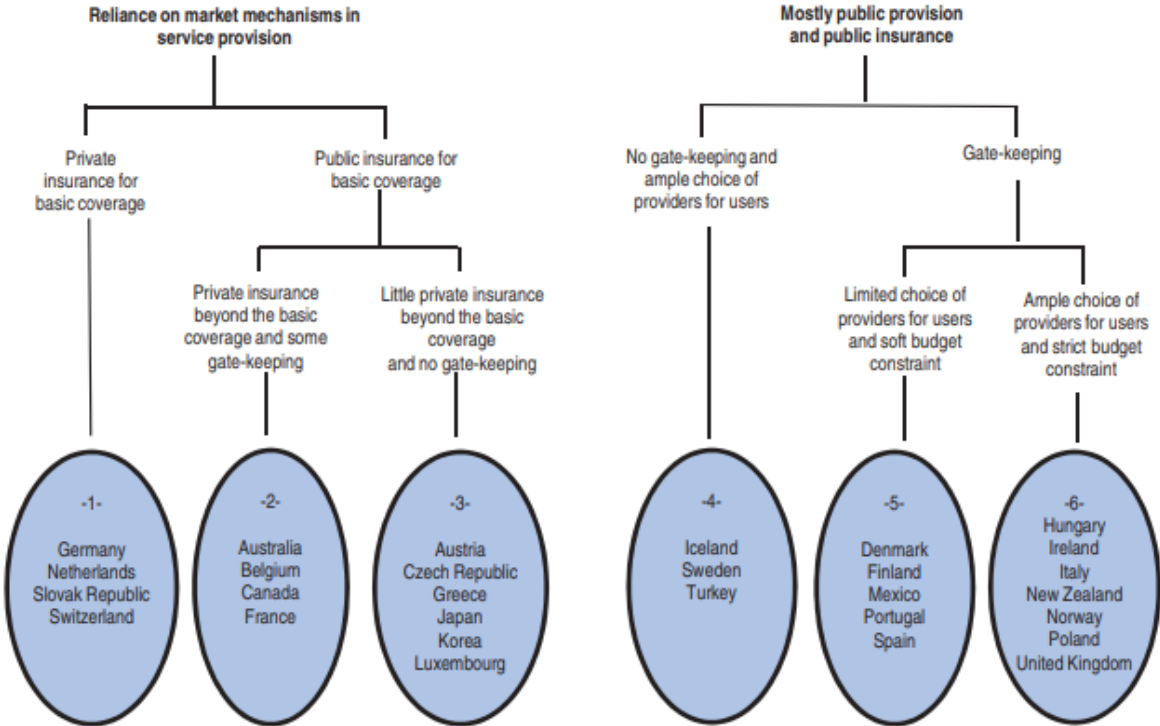
The main demonstrator of such a model is USA, where different programs exist to support such individuals who are not able to afford and pay the insurance care. Such programs as “Medicare” is focused on helping the poorest/oldest group of people. (Stiglitz, J., 2000)¹¹

3.3.2.4 The healthcare system of OECD

The diagram shows the typology of health systems according to the Organization for Economic Cooperation and Development - OECD. The organization divides the systems into two main groups, which are subsequently divided into further subgroups. The first group includes countries that use market mechanisms in the form of private and public insurance to provide health services. In the second group are healthcare systems that are financed mainly from public sources and there are institutions of public insurance companies. In this group, so-called gate keeping may or may not appear - there is no free choice of choosing a specialist and accessing him. The patient is most often referred to a specialist by their general practitioner - the gate keeper. (See the Figure – 2).

¹¹ Stiglitz, J(2000): Economics of the public sector. 3rd ed. New York: ISBN: 0-3933-96651-8.

Figure 2: Healthcare systems by OECD



Source: OECD (2010).¹²

3.3.2.5 Healthcare systems by WHO

One of the systems classified by WHO, is the tax system. The healthcare system is based on tax revenue. The government purchases health care from both public and private providers (WHO, 2019)¹³.

According to (WHO, 2019)¹⁴ public social and health insurance is mandatory by law. Employees and employers, as well as self-employed persons and, for certain groups of the population, the state participate in payments to insurance companies. Insurance companies

¹² OECD (2010): Health care system. [online]. [Accessed: 12-07-2022]. Available at: [Health Care Systems \(Summary in English\) | Health Care Systems : Efficiency and Policy Settings | OECD iLibrary \(oecd-ilibrary.org\)](https://www.oecd-ilibrary.org/health-care/health-care-systems)
¹³ WHO (2013): Public Health Taxes: Health financing for universal coverage. [online]. [Accessed: 13-07-2022]. Available at: https://www.who.int/health-topics/health-taxes#tab=tab_1
¹⁴ WHO (2019): Financial protection. Health financing. [online]. [Accessed: 13-07-2022]. Available at: https://www.who.int/health_financing/topics/en/

conclude contracts with health care providers (both public and private) for a specified range of care. There are types of services that may not be covered by this insurance.

Insurance contributions are paid directly to insurance companies, by individuals or through organizations or employers. Private insurance companies calculate the amount of insurance premiums based on the health risks of individuals. This insurance is voluntary (WHO, 2019)¹⁵.

Community health insurance is a type of private insurance, where local communities are involved in paying the premiums. It is mainly used in African countries (CBHI, 2019)¹⁶.

Health savings accounts are not widely known. However, from those accounts you can only pay healthcare purchase. They have incentive functions to save expenses and people using the accounts have an overview of the cost of care (WHO, 2019)¹⁷.

3.4 Indicators of healthcare system

There are different measurement tools which can evaluate the success of the healthcare system. The health expenditure is measured per person. The indicator includes the expenditures on medical care, public health support, administrative work, and preventive programs. For the purpose of comparing the relative health expenditures of countries among, themselves, expenditures are shown in purchasing power parity values (OECD, 2018)¹⁸.

This indicator shows how much money the state spends on healthcare in relation to all other goods and services in the national economy. It is always important to associate this indicator with total expenditure per person, as it may not have a true informative value by itself. Although it is mostly true that countries with a higher GDP tend to have higher expenditures

¹⁵ WHO (2019): Voluntary health insurance: Health financing. [online]. [Accessed: 13-07-2022]. Available at: https://www.who.int/health_financing/topics/voluntary-health-insurance/en/

¹⁶ CBHI (2019): Health financing for universal coverage. [online]. [Accessed: 13-07-2022]. Available at: https://www.who.int/health_financing/topics/community-based-health-insurance/en/

¹⁷ WHO (2019): Resource tracking: Health financing. [online]. [Accessed: 13-07-2022]. Available at: https://www.who.int/health_financing/topics/resource-tracking/en/

¹⁸ OECD (2018):

per person, we can find countries that, despite the high percentage spent on healthcare, have relatively low expenditures per person. On the other hand, very rich countries may give a relatively low percentage to health care, while spending per person is high (OECD, 2018).

There are, however, other indicators which measure the quality of healthcare system and are linked to the length of individual's life. The hope to live till an average life expectancy and that the newborn baby will be able to survive. Life expectancy reflects the death rate in a population. It considers mortality across the entire age spectrum of the population - children, adolescents, adults and the elderly. Data sources are mortality tables, censuses, and surveys. An average life expectancy can be divided by sex and location. Where, mortality indicates the number of deaths in terms of place, time and causes of death. For comparison, a standardized measure is used, which indicates the number of deaths per 100 000 inhabitants in a given calendar year (WHO, 2006)¹⁹. The reason of mortality is also necessary to study, in order to improve its healthcare system. Healthcare institutions can decide, what are the main factors to focus, thus, achieve a better quality of healthcare system in general, and health of population.

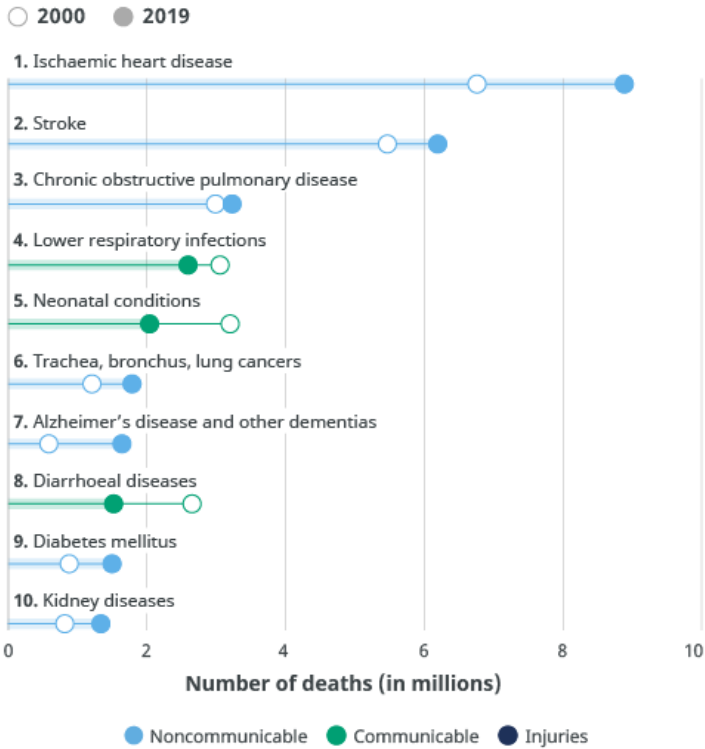
There are most common mortal diseases which relate to a heart such as: strokes and ischemic diseases. Those countries in which the cause of death has recently increased, for example due to cardiovascular diseases or diabetes mellitus II. type ("senile" diabetes) should focus on prevention and improving the lifestyle of their residents (WHO, 2018)²⁰, See, Figure – 3.

It is very important to investigate the reasons of why people die, in order to improve the quality of how people live. The allocation of resources can be inefficient in different sectors of economy such as: agriculture, transportation and facility and environment. For assessing the data of mortality, it helps the government to understand the reasons of deaths (WHO, 2019).

¹⁹ WHO (2006): Definitions and metadata. [online]. [Accessed: 13-07-2022]. Available at: <https://www.who.int/whosis/whostat2006DefinitionsAndMetadata.pdf>

²⁰ WHO (2018): Top ten causes of death. [online]. [Accessed: 13-07-2022]. Available at: <https://www.who.int/en/news-room/fact-sheets/detail/the-top-10-causes-of-death>

Figure 3: Top ten causes of death, by WHO



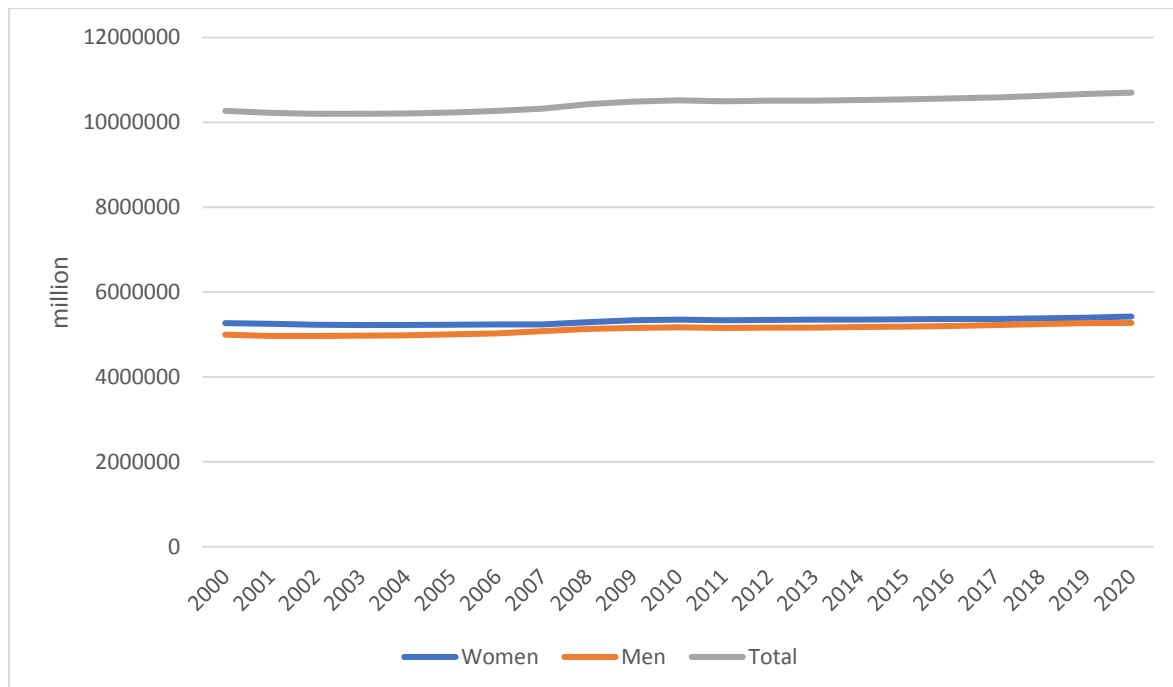
Source: WHO (2018).

There is another indicator (PYLL) potential years of life lost, which is a summarization of all years people would have died prematurely from preventable diseases. The calculation is based on a sum of death people of each age category multiplied by the limit of life expectancy (according to OECD, the years of life expectancy equals to 75). For the international comparison, the standardized rate is used, measured as years lost per 100 000 population.

3.5 The healthcare system of Czech Republic

The healthcare system of Czech Republic is based on the Bismark's model, however, for the period of socialism in 1989, there was Semashkov's model applied. In between 1989 to 1993, the expenditures for the healthcare was around 4 % of GDP, however, today, there is around 7-7,5 % of GDP allocated for the healthcare system, based on the statistics of OECD. The number of populations varies from 10,5 to 11 million people, the demographic development is seen on the Figure – 4.

Graph 1: Demographic development of Czech Republic



Source: czso.cz (2022).²¹

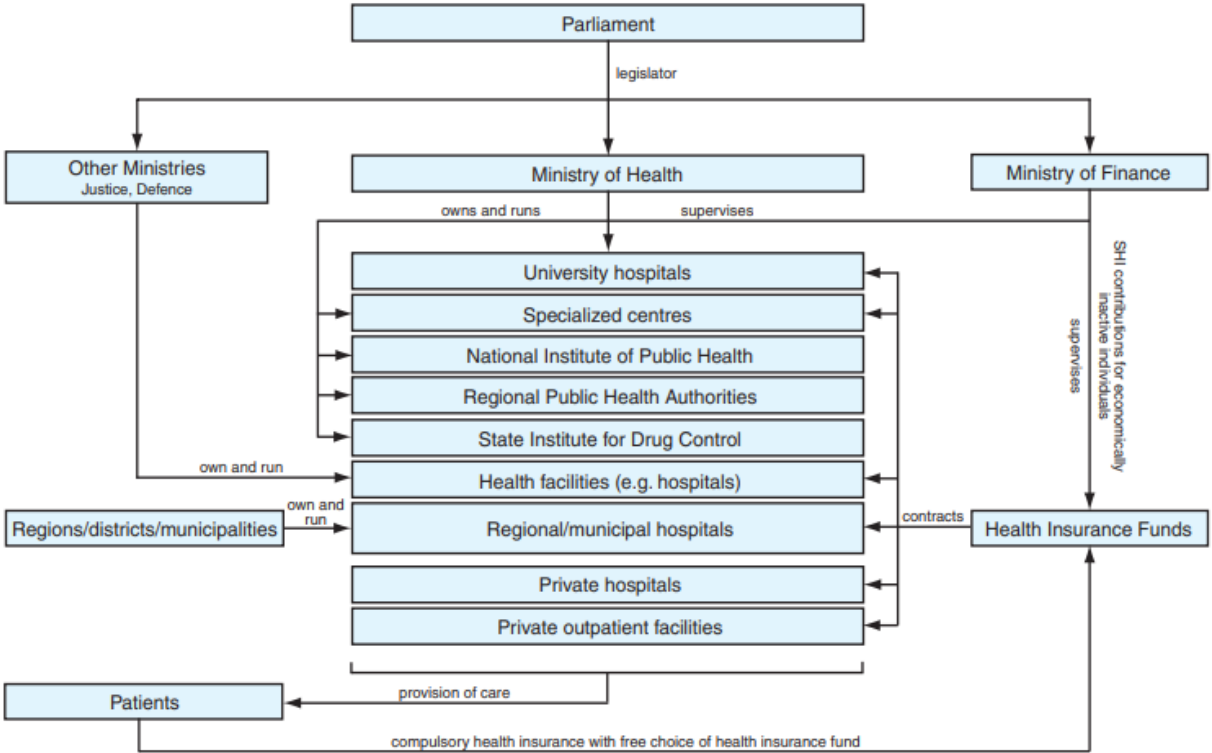
The Czech Republic experiencing the post-productive aging group of people, mostly the population consists of elderly people, however the trends seem to be positive. Based on the Statistical institution of Czech Republic, the prognosis demonstrates that the aging group of 15-

²¹ Český Statistický Úřad: Population and population increase of the Czech Republic in 1919–2020. [online]. [Accessed: 13-07-2022]. Available at: <https://www.czso.cz/csu/czso/demographic-yearbook-of-the-czech-republic-2020>

64 will cover only 56 % of the whole population by 2050, and the aging group of 65, will be only one-third of the population. However, the forecast is that population will slightly decrease.

Given that the majority of funds in the Czech Republic are obtained from public health insurance, which is paid for by employment or self-employment to persons who are not state insured, the development of the population is unsatisfactory. The fact that Czech Republic is being a migration state, has also affected the increase of population for the past 7-10 years.

Figure 4: The financial system of healthcare in Czech Republic



Source: Alex (2015)²².

The Figure – 4, in the picture shows the structure of the healthcare system of the Czech Republic. The whole system starts with the Parliament of the Czech Republic, which administers the ministries and creates legislation. The Ministry of Health certainly plays a big

²² Alex, J & Rečka, L & Ewout V,G. and Wittenbecher, F (2015): Health Systems in Transition: Case Study – Czech Republic. ISSN 1817-6127. [online]. [Accessed: 13-07-2022]. Available at:https://www.euro.who.int/_data/assets/pdf_file/0005/280706/Czech-HiT.pdf

role in the healthcare system, and the Ministry of Finance and other ministries, such as justice and defense, also enter the system. Ministries and their administration and powers are linked across the entire healthcare system. Institutions that are part of the healthcare system are: hospitals – university, private, regional and state; specialized centers, the State Health Institute and the Institute for Drug Control. The state tries to own as few hospitals as possible and delegates their ownership and management to the regions. The main institutions in the system are health insurance companies, which cooperate with ministries (funding, legislative measures), health service providers (through licensing and concluding contracts) and especially with patients through compulsory insurance, which they collect from patients, with the patient having a free choice in choosing your health insurance company. Regions and the state also appear in the financing structure, which establish and contribute to the financing of some hospitals (Zlámál, J & Bellová, J., 2013). There are 7 providers of healthcare insurance in Czech Republic:

- General Health Insurance Company
- Military Health Insurance Company of the Czech Republic
- Czech industry health insurance company
- Professional health insurance company for employees of banks, insurance companies and the construction industry
- Škoda employee insurance company
- Health Insurance Company of the Ministry of the Interior of the Czech Republic
- District fraternity cash register, health insurance company.

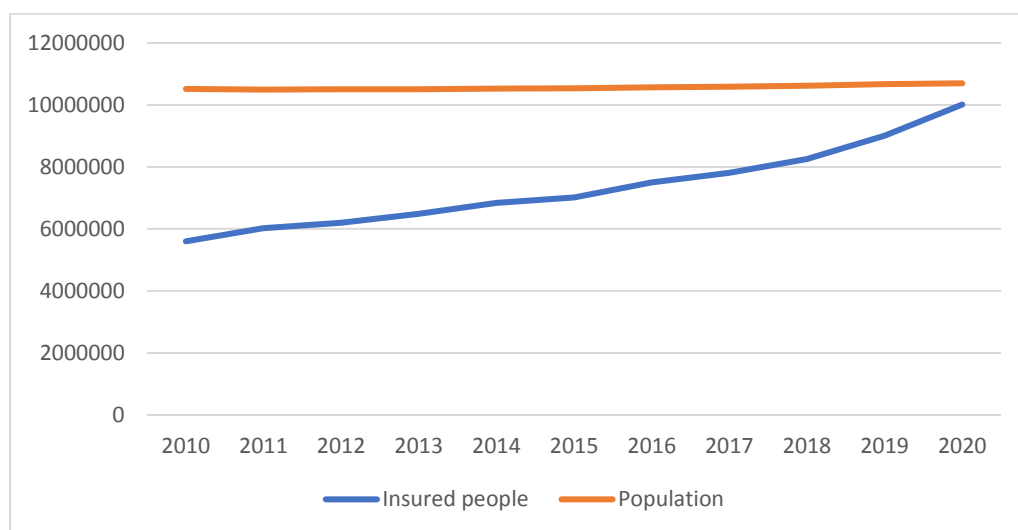
Every person has the right to pick and choose its healthcare provider, based on his/her preferences. Additionally, in case she/he wants to change its provider, they have the right to do it. The change is only possible once per year, and only to the first calendar month of a quarter. Public health insurance come into existence when: a person is born, when a person is not a citizen of Czech Republic is employed on its territory, day when a foreigner receives a permanent residency in the territory of Czech Republic. However, it ends when a person. dies,

when a foreign person becomes unemployed and when the permanent residency of a person terminates to a certain date (Rokosová & Matthew, G., 2009).

The “General Health Insurance Company” other words in “Všeobecná zdravotní pojišťovna“- VZP , which is coded as 111, cannot go bankrupt, because it is directly financed by the state (Vojtěch, K., 2015)²³. The insurance company is focused on a principle of solidarity, where poor and rich people are treated equally. There are three parties involved in insuring population and in case of employment. The insured person, the employer and the state it-self. However, the state is only responsible for a special group of people such as: cripples, retired people, people are registered at work-institution, handy-cap people.

In recent years, the total number of insured persons has increased slightly, which can be seen from the graph below. An important group of insured persons is state insured persons, whose share is more than half of all insured persons. The most significant year-on-year decrease in state insured persons was recorded in 2014, which was helped by the start of growth of the Czech economy.

Graph 2: Number of insured people in Czech Republic



Source: czso.cz (2022).

²³ Vojtěch, K (2015): Social politics. ISBN: 978-80-7478-921-2. City: Praha, Publisher: Wolters Kluwers. Page – 566.

The insurance rate for the public health insurance in Czech Republic is equalled to 13,5 %, where an employee pays 1/3 of it and the rest is paid by employer. The minimum assessment basis for the insured is the minimum wage. The minimum assessment basis does not apply to all insured persons. Exceptions include, for example, state insured persons and persons who would be state insured if they did not have taxable income from employment (Zlámal, J & Bellová, J., 2013).

Based on an Act number. 592/1992, para 3 of law 1, the public healthcare and its minimum assessment basis is the sum of income of a person from dependent activities, which is a subject of personal taxation system, and not exempt from tax which employer charged him/her, based on the working agreement. The employment insurance sets the minimum assessment basis, but it only applies when a person earns a minimum income. The minimum assessment basis can be reduced, based on the working agreement, when it doesn't exceed a calendar month or a worker is under incapacity for work (Vancurova, A & Klazlar, S., 2008)²⁴.

The basic minimum wage rate for a specified weekly working time of 40 hours is CZK 16,200 per month or CZK 96.40 per hour. The amount of the minimum wage specified in the government regulation refers to the fixed weekly working time of 40 hours (Ministry of Labour and Social Affairs, 2022)²⁵.

The below picture 6, shows the remuneration of gross income, social and health insurance fees based on the percentage mentioned above. The author has highlighted the two transactions which are deducted by employers accounting department and the fees are sent to the insurance healthcare institutions accordingly.

Gross income = 44 568 * 4,5 = 2005,68 (rounded in the payroll as 2006 CZK) – Healthcare protection.

Gross income = 44 568 * 6,5 = 2897 CZK, Social protection.

²⁴ Vancurova, A & Klazlar, S. (2005): Social and health insurance. Introduction to the problem. ISBN: 978-80-7357-381-2. Praha.

²⁵ Ministry of Labor and Social Affairs (2022): Minimum wage for Czech Republic. [online]. [Accessed: 15-07-2022]. Available at: mpsv.cz

Picture 1: Exemplary payroll for Czech Republic

VÝPLATNÍ PÁSKA				SRPEN 2021	
NÁZEV ZAMĚSTNAVATELE					
JMÉNO: ANNA SKROMNÁ					
OS. ČÍSLO: 1221					
ÚČETNÍ: JINDRA LAKOMÁ, TEL. 555 666 777					
Název mzdové složky	Hodiny	Sazba	Částka		
Základní plat	175	170	29750	Dosažený př.	229,52
Osobní příspěvek	175	28,57	5000	Prům. dovol.	305,35
Práce přesčas 50%	21	229,52	4820		
Příplatek za přesčas 50%	21	158,68	3332		
Příplatek za práci SO+NE	21	79,34	1666		
Hrubá mzda	175		44568		
Sociální pojištění		44568	2897		
Zdravotní pojištění		44568	2006		
Sleva na dani - poplatník			2320		
Sleva na dani - první dítě			1267		
Daň zálohová		44568	6685		
Stravné			588		
Dobírka na účet			35979		
Čistá mzda			36567		

Source: <https://www.galeriezdravotnictvi.cz/> (2022).

3.6 The Insurance system in Russian Federation

Today, Russian Federation, further (RF) administratively is divided into three main level, federal, regional and local. The government is a subject of 21 republics, 9 regions and 46 regions, 5 autonomous regions and cities of federal importance such as Moscow and St. Petersburg, the local regions cover small towns and villages. The health system has the same structure as the state administration, hence has federal regional and local levels.

In Russia, the healthcare system is free of charge, which is written in the Paragraph 41, of basic laws of freedom, which states “*Everyone has the right to be protective from the medical point of view. The medical treatment in regions and municipal states should be provided to citizens free of charge, including all facilities needed to treat a person in need. It all is financed*

by the state, insurance contribution and other sources”.- (Constitution of Russian Federation, 2017)²⁶.

Till 1991, the main financial source of the healthcare system in RF were the funds from the state budget, the share was around 80-85%. Other sources were the funds of local self-government and the population (Poljak, G., 2008)²⁷. At the beginning of 90's, there were reforms performed, including the healthcare system and its finance. It eventually led to a creation of compulsory health insurance, supported by direct payments and private insurance and state funds.

The main change in financing the healthcare system was mainly linked with the modernization system of compulsory health insurance, in 2011 – 2015. The compulsory health insurance was done in the framework of healthcare reforms. The reforms helped to stabilize the cash-flow. It led to a proper allocation of funds which are distributed equally between regions and republics. This model is characterized by the fact that all funds intended for the financing of health care and medical facilities are accumulated in the compulsory health insurance fund. (Poljak, G., 2008).

The health insurance system in Russia is a combination of a system of regional funds and competing health insurance companies. The health insurance company transfers the collected premiums to the relevant regional fund, from which it then flows into the federal fund. The Federal Fund acts as an insurer, whose main duty is to finance the costs of health care for citizens from Compulsory Insurance funds. The competition consists in the fact that health insurance companies try to achieve the largest possible market share and thus the most suitable position for negotiations with medical facilities. Health insurance companies compete mainly on the quality of the services provided, and health insurance companies also compete on the

²⁶ Constitution of Russian Federation (2017): The rights of citizen. [online]. [Accessed: 15-07-2022]. Available at: <http://www.gov.ru/main/konst/konst11.html>

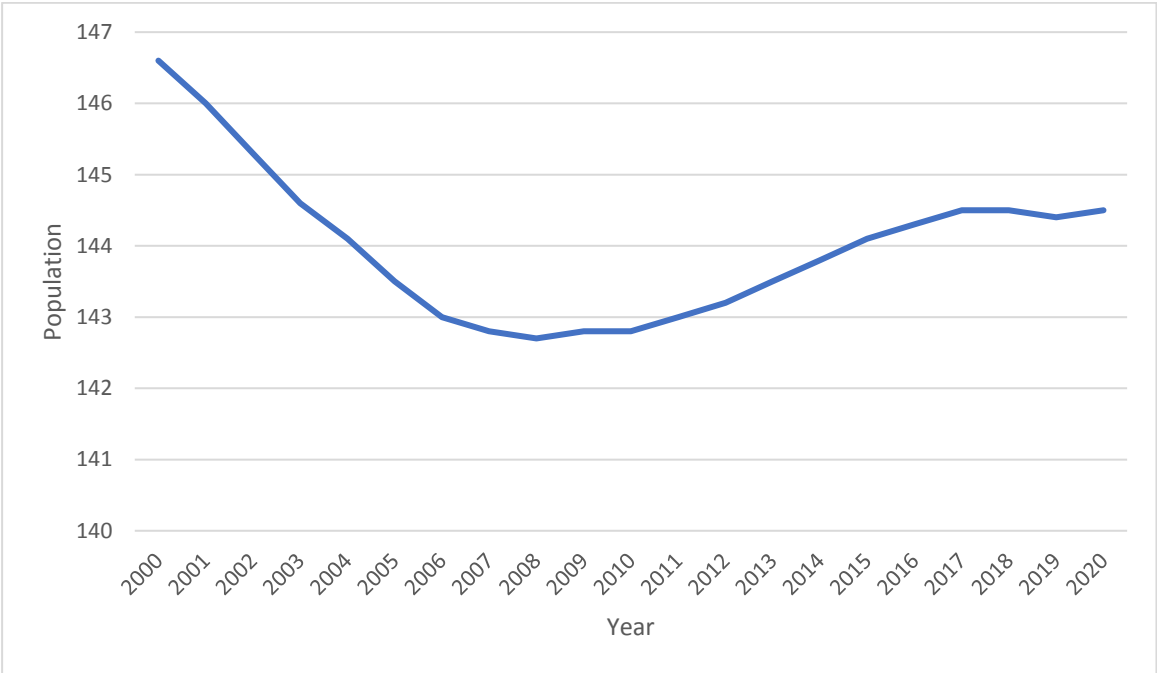
²⁷ Poljak, G. (2008): Finance. ISBN: 978-5-238-01129-5. Publisher: Unit Dana.

provision of above-standard services and programs. (Romanova, A & Andreev. O and Bogoslavec, L., 2014)²⁸.

The RF and its population are accounted for 144 million people. The demographic development is seen in the Graph – 5. The development varies around 146 million people, however, Russia as the Czech Republic, hasn't achieved a stable growth of population for the past 10 years, the level of development is quite similar.

Back then, the USSR, used the Semaskov model, which employed all the health personnel. However, after the collapse of USSR, the RF declared its independence and applied the OMS model or Compulsory medical care model. However, the (OECD, 2007)²⁹ report of , has criticized the reforms and concluded that none of them worked as it was planned.

Graph 3: Demographic development of Russian Federation

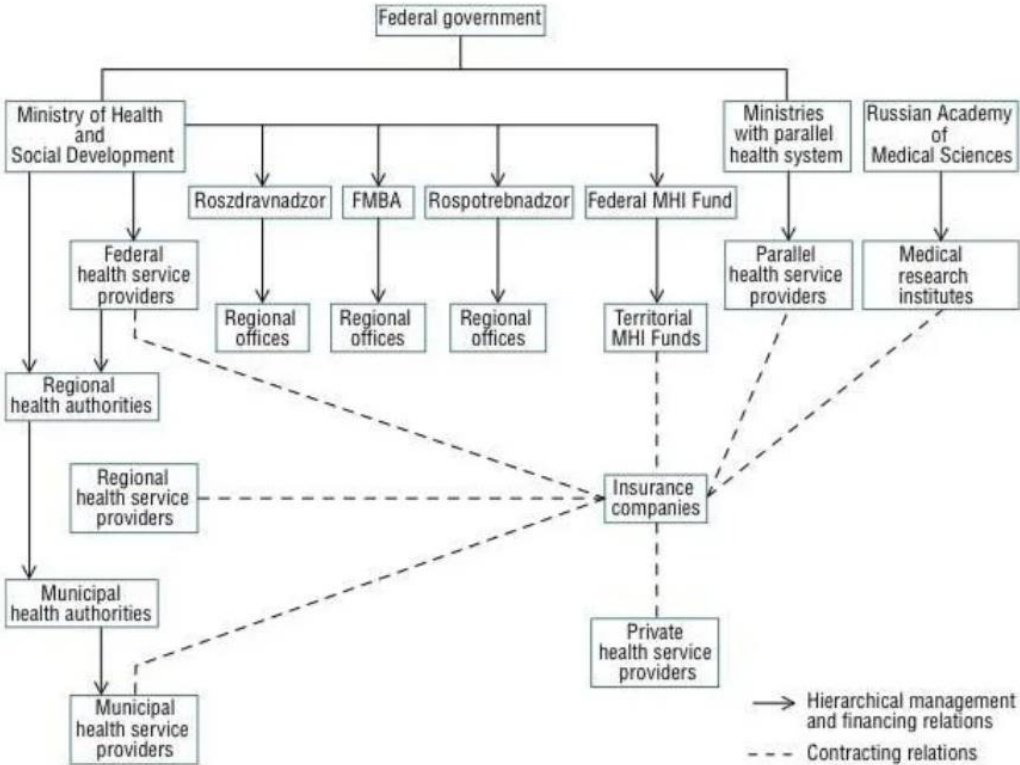


Source: worldmeters.info (2022).

²⁸ Romanova, A & Andreev. O and Bogoslavec, L., (2014) The financial aspects and development of healthcare system of Russia, based on the conditions of budget reforms. ISBN: 978-5-4382-0176-2.

²⁹ OECD (2007): Healthcare Reform in Russia: Problems and Prospects. [online]. [Accessed: 15-07-2022]. Available at: [OECD paper No. 538](http://www.oecd.org/health/538).

Figure 5: The structure of healthcare system in Russian Federation



Source: slideshare.net (2017).

There are two channels through which the public funding flows: the budget (or general revenues) system, managed by federal, regional, and local health authorities, and the MHI system, which is managed by Federal and Territorial MHI Funds.

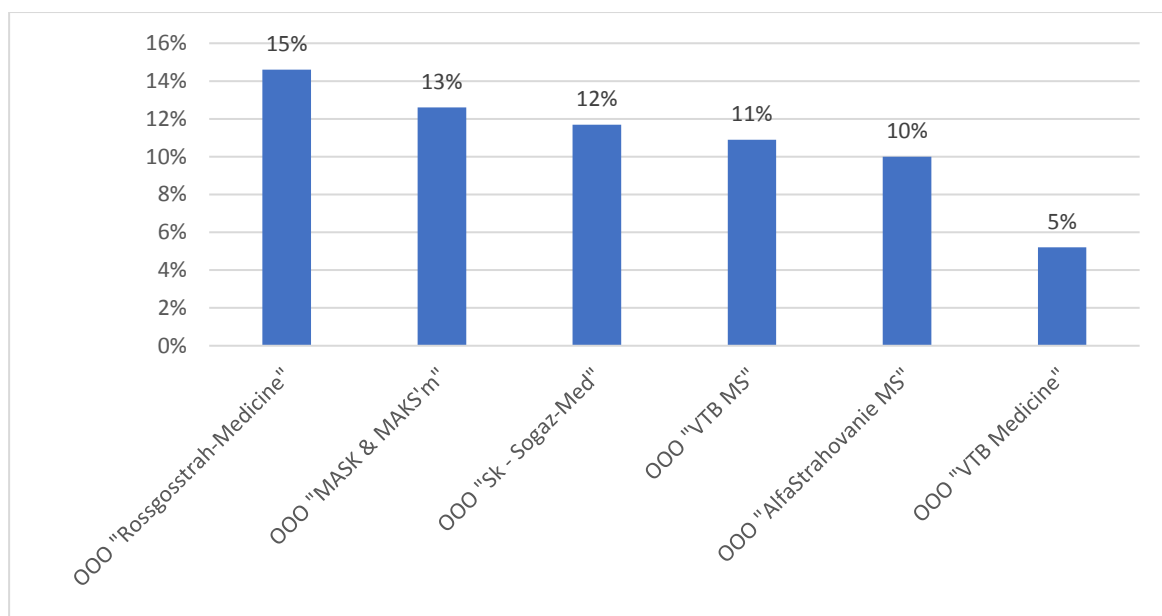
In accordance with the law number 326/2010 which states about “Compulsory insurance in Russian Federation”, compulsory health insurance is a part of the state social insurance (Constitution of Russian Federation, 2017). The insurance provides all citizens of the Russian Federation with a state guarantee of compliance with the right to health care. Insured people include the citizens of Russian Federation, permanent residents of the territory of the Russian Federation, refugees, and stateless people. Additionally, the employed people who are based on official contract agreement, self-employed people, people who are involved in agricultural sector.

Among the people who are insured by the state, belong:

- Children from birth to 18 years of age
- Persons who receive a pension from the pension insurance
- Unemployed persons who are registered at the labor office
- Persons who take care of one child up to the age of 3 all day long
- Full-time students of primary, secondary and higher schools
- Citizens caring for a disabled child, disabled persons of the 1st group and persons over 80 years of age.

The insurance structure in each insurance company is very different. Today, there are 53 insurance companies, which provide its services. However, the market is divided by 13 insurance companies where the biggest market share is taken by “ROZHOSSTRAH” which has registered over 14,6 % of overall insured people in RF.

Graph 4: The market share of insurance companies



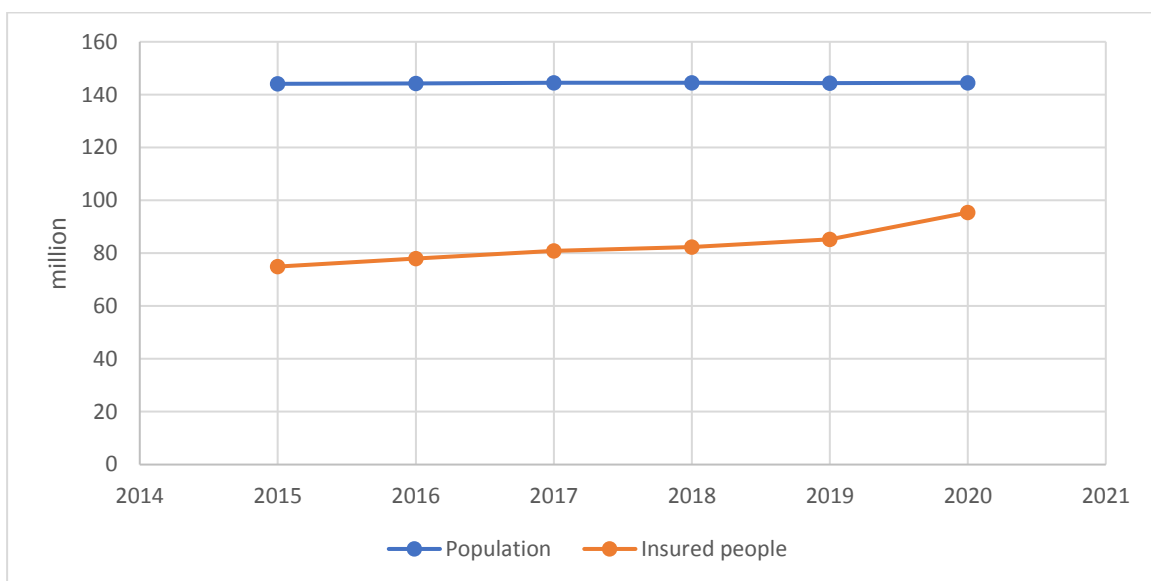
Source: Based on the secondary data collected by (Barinov, A., 2018)³⁰, own processing.

³⁰ Barinov, A (2018): Financial and economic planning as the basement for a successful company in contemporary economics. [online]. [Accessed: 16-07-2022]. Available at: cyberlink.ru

Based on the data of above-mentioned graph, the OOO “Rossgosstrah” insured over 21,4 million people, followed by AO “MASK – MASK’m” with 12,6 %, 18,4 million people, OAO “SK-Sogaz-Med” – 11,7 % (17,5 million people), “OOO “VTB MB” with 15,9 million people, “AlfaStrahovanie MS” 14,6 million people” and “VTB – Medicine” is with 7,6 million people. Most of the population in RF, choose those companies for a compulsory insurance. The state it-self is interested in ensuring that all the population is healthy and being productive from the labor point of view. Every insurance company is interested in developing its system (new job positions, new facilities) etc.

For the past 5 years, the number of insured people has certainly increased in RF, which can be seen in the following Graph – N.

Graph 5: Number of insured people (million)



Source: (FFOMS, 2022)³¹

Significant growth in the number of insured persons in 2014 was caused by the annexation of the Republic of Crimea to Russia. The population of the Crimean, as of January 1, 2015, was

³¹ FFOMS (2022): Statistical data of health insurance companies. [online]. [Accessed: 16-07-2022]. Available at: <http://www.ffoms.ru/upload/iblock/91b/91b96b3174f25702b769e8ced881ab2e.pdf>

1,895,915. Another factor that affected the growth of insured persons in the same year was the sharp increase in the influx of Ukrainian migrants due to the unstable situation in Ukraine.

The percentage rate for insurance supposed to be paid by employer, which is determined by Federal Law number 326/2010 about “Compulsory health insurance in Russian Federation”, and the rate is 5,1 % which is contributed from a gross income. All the costs are up to the employer. For the social insurance it is 2,9 %, and for the pension insurance it is 22 %.

For self-employed people, the rate is slightly different, and the percentage is fixed for the health insurance, which is derived from the amount of minimum wage. The formula for calculation the annual premium is as follows:

$$P = MI \times 5,1 \% \times 12m.$$

where: **P** – is the insured amount,

MI – minimum income, multiplied by 12 months, the following table shows the minimum wage for RF and its annual development. The author has taken an average exchange rate on an annual basis, it was taken from čnb.cz for all years.

Table 2: Minimal income in Russian Federation

Year	2016	2017	2018	2019	2020	2021
Minimum income	7500	7800	9489	10280	12130	12792
Absolute amount	4590	4774	5807	6291	7424	7829
In CZK	1681	1914	2014	2230	2393	2303

Source: Own calculation in Excel.

Rosstat has indicated that the mortality rate in Russian Federation is one of the highest in the world. WHO analyst has also identified the factor that explain the huge mortality rate, a low level of medical care, alcohol and tobacco, lack of physical activities, poor nutrition base and environmental situation.

However, economic factors also influence of the quality of services provided by healthcare organizations and institutions. Because of the fact that majority of people does not

earn much of income they are not allowed to request for a private medical attention, maintaining a healthy diet or afford an expensive sanatorium with the programs which are focused on healthy activities. The birth rate can be negatively affected because of uncertainty in the future.

The first stage of the implementation of the new health strategy will be finished by 2021, the state however, is planned to increase a life expectancy up to 74 years old (by 2025, the life expectancy rate is planned to increase up to 78 years old). From the period of 2012 up to 2017, the mortality rate of infant has decreased by 35 %, maternal mortality rate has decreased by 24 %. Due to new reforms which were adjusted, such as: electronic interaction between patients and clinics, it has saved so many lives and detected acute cases long before the fatal outcome.

It is certainly should be noted that new reforms which were signed in 2012, have decreased the death rate, from 52,3 % to 20,5 %, and the main cause was the alcohol addiction. Despite the fact that Russia still lags and not able to cope with the effectiveness of medicine in developed countries, the experts claim that, to eliminate the gaps, the officials need to determine the areas which are prioritized and should increase the expenditures to those areas.

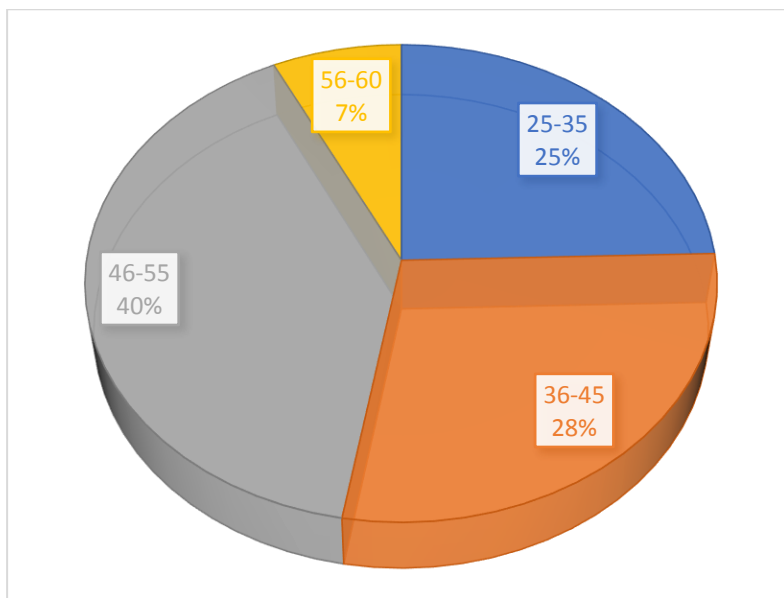
With the recent pandemic which hit all the states around the globe, Russia was not an exception to survive hard times. There were over 130 thousand volunteers involved, including professors, teachers and students of last years, into the work. Medical hospitals were very quickly reassigned within the country. The military managed to build new hospitals in all regions of Russia. For example, in Moscow, the hospitals N-1 and N-2, were primarily focused on infectious people, as well as a new complex in Kummunarka.

4 Practical Part

In this chapter, the author has conducted the data from a survey. Where the same questions were asked different group of people, aged from 25-60. The gathered data was processed by Cronbach's alpha test, where the author has tested the hypothesis and the internal reliability of respondents, meaning that, how as a unit: they would confirm all 5 hypotheses in both states. However, the first questions regarded the age of participants, and the results were the following:

4.1 Data of Czech Republic

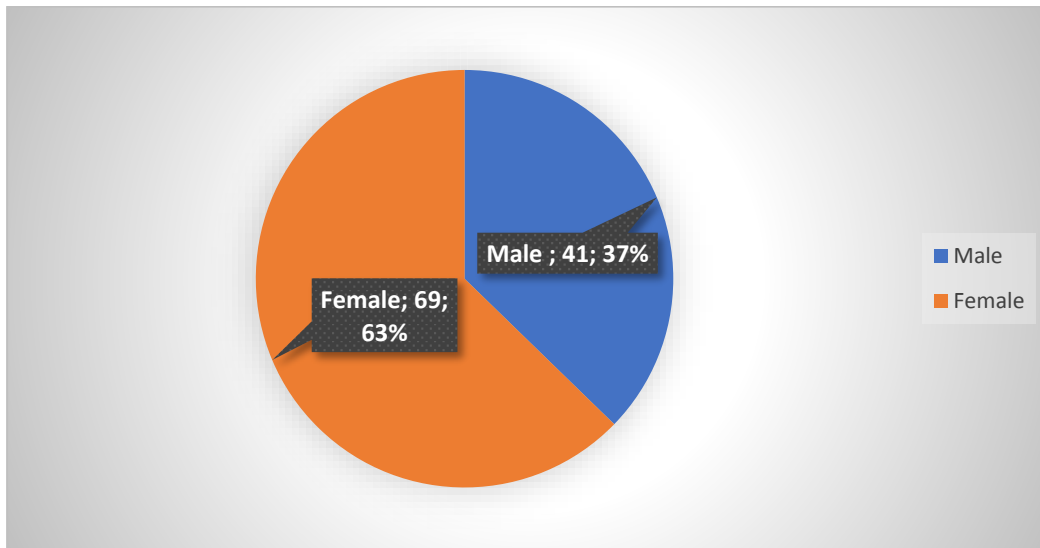
Figure 6: Age of participants (Czech Republic)



Source: Processing in Excel, own data.

Most of the participants were aged between 46-55 years old, which might indicate the precise reliability on the tested hypothesis, as those people are much experienced in medical sector. The total number of participants were 110, for each state. The questions were asked to find out what the leading insurance company is based on the sampling and how many times people visit doctors in general. The gender rate was divided in the following way, See Figure – 7.

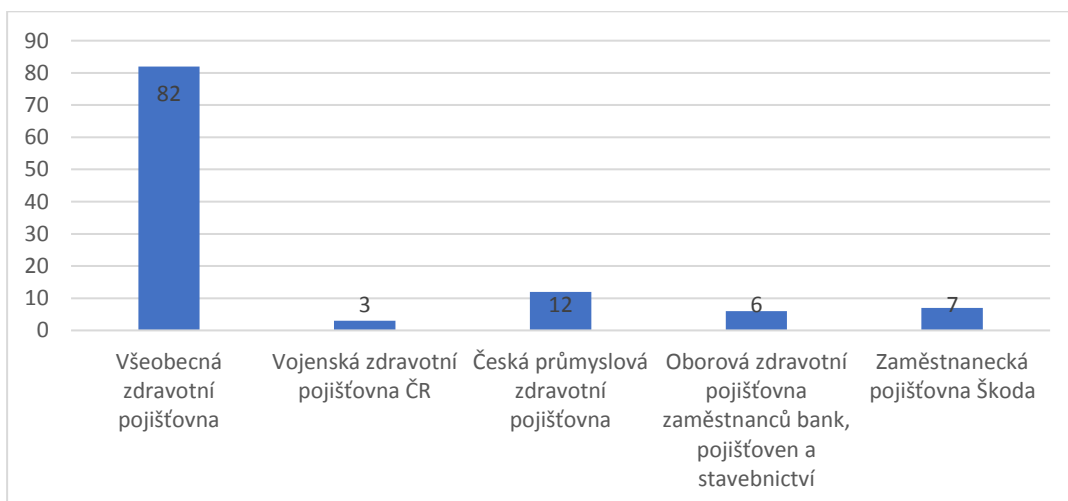
Figure 7: Gender (Czech Republic)



Source: Source: Processing in Excel, own data.

As it has been mentioned the most prevalent insurance among the participants was the the “General Health Insurance” – VZP. There were 82 participants who had been insured under VZP, followed by “Czech industry health insurance” which had 12 people, the “Professional health insurance company for employees of banks, insurance companies and the construction industry” – with 6 people and “Insurance company of Skoda” with 7 people.

Figure 8: Participants and their insurance choice (Czech Republic)



Source: Source: Processing in Excel, own data.

Table 3: Hypothesis, scaling method (Czech Republic)

Hypothesis	1- Strongly agree	2 - Agree	3 - Neither/ nor	4 - Disagree	5 - Strongly disagree
The more money invested into the healthcare system, the better quality of services the citizens will receive.	30	61	10	8	1
The healthcare system of my country is developed very well.	91	0	11	8	0
The system needs an improvement from educational side, more qualified personnel is needed in my country.	2	56	22	26	4
For the most part, I go to private doctors, where fees are higher than usually, however, quality is also worth it.	0	10	1	91	8
In urgent cases, if an ambulance car reacts very quickly, the chances to save a person's life is much higher.	39	56	5	9	1

Source: Source: Processing in Excel, own data

Based on the first hypothesis, See, Table – 3, participants agreed with the hypothesis, which states that if the state invests more money into the healthcare sector and develop the system with a better technological development (91 participants in total), however, there are people who disagree with the hypothesis (9 participants in total), and 10 were indifferent in terms of the hypothesis. For the second hypothesis, which states that the healthcare system is developed well in Czech Republic, and again, most of the participants responded as they are agree with it (91 participant), (11 participates) were unsure and 8 people disagreed with the statement. The third hypothesis claims that the current system needs more of qualified personnel, which is linked with an improvement of educational system, whereas (58

participants) agreed with the statement, (22 participants were unsure) and (30 participants disagreed). The fourth hypothesis was based on a quality of private doctors and see how people evaluate the price in relation to quality when they actually visit private doctors. The results turned out to be very consistent, due to the fact that this hypothesis is directly linked with the second one. Most of the participants disagreed (99 participants) with the statement, and barely visit private doctors, because the healthcare system works efficiently. 1 participant was unsure, and 10 participants agreed with the statement. The fifth hypothesis is about an ambulance car and its quickness, sometimes a person's live, can count second to survive, it is very important to have laws and regulations within the nation. When an ambulance car is in alarm, everyone should free the way for the ambulance car. Most of the participants agreed with the statement (95 participants), 5 were unsure, and (10 participants) disagreed for some reason. However, all the hypotheses seem to be logical and clear to understand, however, in order to test the internal reliability of those answers, the author has applied the Cronbach's alpha, to see how the author can rely on the gathered data.

The author has used the **ANOVA: Two-factors without replication** test in Excel Software and further applied the formula of: Cronbach's alpha = 1 - (MS/Error) and results turned out to be the following

Table 4: Cronbach's test for Czech Republic

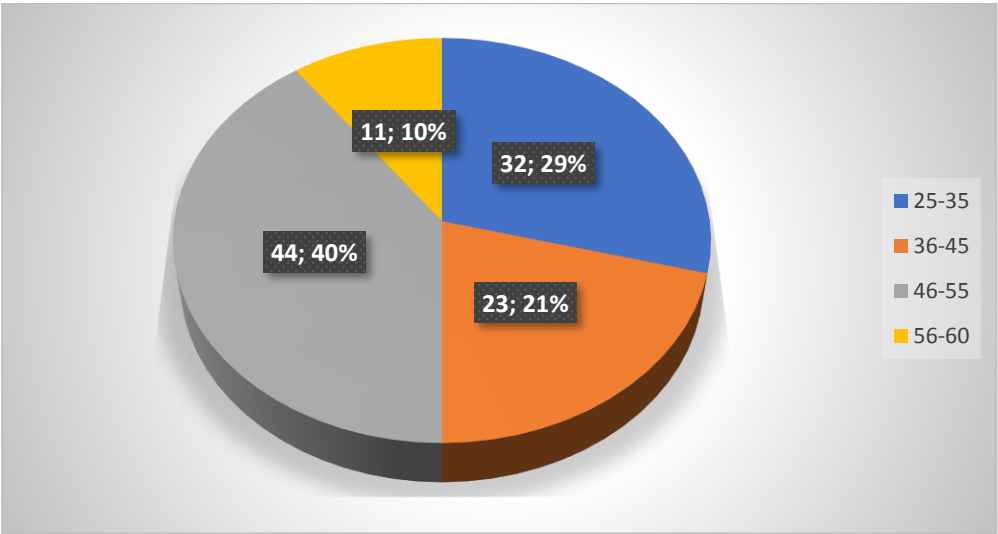
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Rows	183,398 2	109	1,68255212 7	2,64010 1	1,21E -12	1,270155
Columns	394,934 5	4	98,7336363 6	154,923 4	2,44E -82	2,392397
Error	277,865 5	436	0,63730608 8			
Total	856,198 2	549				
		Cronbach's alpha	0,62			

Source: Source: Processing in Excel, own data.

Based on the results, the alpha varies between **0,6** and **0,7** which is questionable to rely on such date. The results didn't show the excellent internal consistency, based on the answers of participants, however, the author indicated the consistency between the second and fourth hypothesis, where those to correspond to the answers of participants.

4.2 Data of Russian Federation

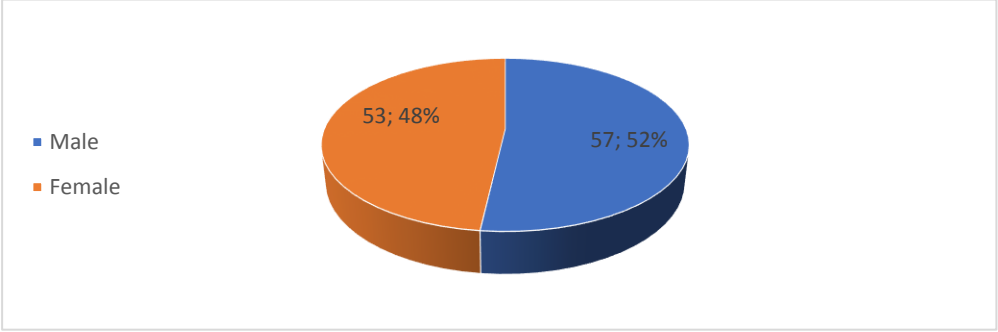
Figure 9: Age of respondents (Russian Federation)



Source: Source: Processing in Excel, own data.

Most of the respondents were aged 46 – 55, followed by 25-35 years old, 35-45 years old and lastly by the elderly people, aged 56-60, See, Graph – 6. The gender diagram shows the following data:

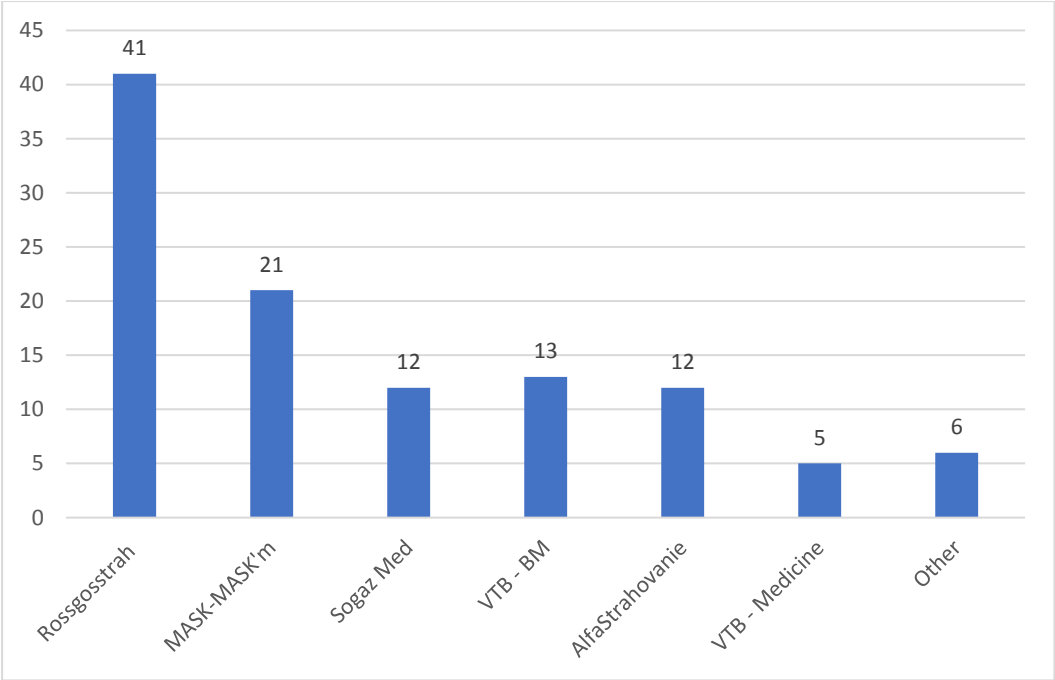
Figure 10: Gender (Russian federation)



Source: Source: Processing in Excel, own data.

The author also has included the insurance companies that operate in Russian Federation. The following Figure – 11, demonstrates the choices of participants. As it was stated in the literature review, based on (Barinov, A., 2018), the Rossgosstrah takes a leading position with (41 participants), based on a small sampling of 110 people, followed by “MASK-MASK’m” insurance with (21 participants), the companies “Sogaz-Med”, “VTM-BM” and “AlfaStrahovanie” each had approximately (12 to 13 participants). The rest (5 participants) had “VTB – Medicine” and (6 participants) had other insurance companies.

Figure 11: Participants and their insurance choice (Russian Federation)



Source: Source: Processing in Excel, own data.

Table 5: Hypothesis, scaling method (Russian Federation)

Hypothesis	1- Strongly agree	2 - Agree	3 Neither/ nor	4 Disagree	5 Strongly disagree
The more money invested into the healthcare system, the better quality of services the citizens will receive.	26	48	15	15	6
The healthcare system of my country is developed very well.	0	26	48	21	15
The system needs an improvement from educational side, more qualified personnel is needed in my country.	0	0	26	78	6
For the most part, I go to private doctors, where fees are higher than usually, however, quality is also worth it.	11	11	1	66	7
In urgent cases, if an ambulance car reacts very quickly, the chances to save a person's life is much higher.	73	33	0	0	0

Source: Source: Processing in Excel, own data.

Based on the respondents, the author has gained the data in order to analyze the stated hypothesis for the Russian Federation, where majority participants have agreed with the statement (74 participants), (15 participants were unsure) and the other (21 participants disagreed with the statement about the investment into the healthcare industry.

The second hypothesis was neither confirmed nor rejected, however, opinions of participants are different, (26 participants) think that the system is develop, however (48 participants) were unsure, and didn't agree and neither disagree with the statement, and the rest (36 participants) disagreed. However, the third hypothesis have certainly shown the opposite. From the educational perspective, (0 participants) think that there is a need for improvement

in the healthcare system, (26 participants) were unsure and the rest (84 participants) disagreed with the statement.

The fourth hypothesis, there were (22 participants) who would go to private doctors and agreed with the statement that, the doctors are a bit expensive however the quality also worth it paying. (1 participants) was unsure about the statement and the rest (74 participants) disagreed with the statement.

The fifth hypothesis was confirmed by the total sampling, where (110 participants) agreed with the statement is when an ambulance car is quick and everyone free the way, it could certainly save more lives. As it has been stated above, the author is interested in knowing the internal consistency and compare it in both states. In order to do it, the author uses the same test under the same conditions. The author has used the **ANOVA: Two-factors without replication** test in Excel Software and further applied the formula of: Cronbach's alpha = 1- (MS/Error) and results turned out to be the following

Table 6: Hypothesis, scaling method (Russian Federation)

ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Rows	271,5345	109	2,49114	4,816150	3,39E-32	1,27015
	4					5
Columns	277,68	4	69,42	134,2103	1,26E-74	2,39239
						7
Error	225,52	436	0,51724			
Total	774,734	549				
		Cronbach's alpha	0,79			

Source: Source: Processing in Excel, own data.

Based on the results, the alpha varies between **0,7** and **0,8** which is acceptable and means that the author could rely on such data. The results showed the internal consistency as acceptable.

4.3 Summary of the practical part

Within the practical part, the author managed to conduct a survey for different states, Russian Federation and Czech Republic. For those two states, the author used the same questions and tried to distinguish, what healthcare system is developed better, based on the answers of respondents. The author has set 5 different hypothesis that at the end of the work, were either true or false. Additionally, the author run the Cronbach's alpha test, to identify the internal reliability of the responses for all hypothesis, meaning that, how reliable the answers of participants are. Eventually, the author made a conclusion.

Based on the gathered data, the Czech Republic healthcare system seem to be more consistent and efficient, however the rate for health insurance and social insurance is certainly higher than in Russian Federation, almost by 2,5 times. Which demonstrates that the Czech Republic properly uses its resources and allocates it efficiently. The unique thing about Czech insurance system is that the main insurance company (VZP) is financed by the state, even if the balance of the company is negative, it still can take a loan from the state budget. (Vojtěch, K., 2015).

In Russian Federation, the system is different. The rate which is deducted from the gross income payroll is 5,1 %, which is lower than in Czech Republic. Even though, the state financially supports the budgetary matters, still people lack the effective medical treatment. The second hypothesis demonstrates how people view the healthcare system in their states, and unfortunately, Russian Federation lags behind where the same question in Czech Republic, demonstrated positive feedback overall.

5 Conclusion

In this bachelor thesis, the author is focused on comparing two different healthcare systems. In the theoretical part, the author explained different methods of financing the healthcare systems, types of healthcare systems and etc.

Additionally, the author explained the healthcare system of Czech Republic and Russian Federation, its structure and classification and models which is applied for both states.

However, the Russian Federation applies the compulsory medical insurance and despite the Czech Republic's system, has over 50 private insurance companies, where individuals are able to pick and choose their own, which he/she prefers. The biggest insurance company in Russian Federation is (Rossgostrah) with its percentage share of 15 %.

The Czech Republic however applies the universal health care system, which is also based on a compulsory insurance model, with free-for-service care funded by mandatory employment-related insurance plans since 1992. The largest insurance company in Czech Republic, which has got the majority of insured people, is VZP (Všeobecná zdravotní pojišťovna).

Within the practical part, the author run a survey for in both states, Russian Federation and Czech Republic. The were 8 questions asked at the respondents. Based on their responses, the author applied a Likert-scale questionnaire and tested the internal reliability of respondents, where based on the test, the author could evaluate the stated hypothesis, to be either rejected or accepted. Based on the test, the author concluded that the answers of participants from Russian Federation is more reliable than in Czech Republic. However, the author relies more on the healthcare system of Czech Republic, rather than Russian Federation, due to the fact that the Czech Republic uses the universal healthcare system, which is based on employment taxation and deduction, which are eventually allocated to the state. Where an allocation of this money directly goes to the state and distribute towards healthcare system. Whereas, RF uses the compulsory insurance system, which doesn't really contribute with its system, to the healthcare system.

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