

Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Economic Theories



Master's Thesis

Health care insurance systems

Bc. Marina Prokopeva

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DIPLOMA THESIS ASSIGNMENT

Bc. Marina Prokopeva

Economics and Management

Economics and Management

Thesis title

Health Care insurance systems

Objectives of thesis

The main objective of the thesis is to compare health insurances, offered for foreigners from the third countries with temporary and permanent residence in the Czech Republic, to identify the differences between offered types and to evaluate these offers from the users views.

Methodology

In the practical part, the health insurances offered for foreigners from the third countries with temporary and permanent residence in the Czech Republic will be compared in terms of quality and range of provided health care, included services and prices. A survey among these foreigners will be also conducted. Respondents will be asked about how effectively the health insurance systems work in their opinion and how they are satisfied with the offers.

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Keywords

foreigners, health, health care, health insurance, health system, migrants, VZP

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The Diploma Thesis Supervisor

Oldřich Ludwig Dittrich, MPH, Ph.D.

Supervising department

Department of Economic Theories

Electronic approval: 30. 12. 2021

doc. PhDr. Ing. Lucie Severová, Ph.D.

Head of department

Electronic approval: 8. 2. 2022

doc. Ing. Tomáš Šubrt, Ph.D.

Dean

Prague on 30. 01. 2023

Declaration

I declare that I have worked on my master's thesis titled "Health care insurance systems" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the master's thesis, I declare that the thesis does not break any copyrights.

In Prague on 31. 03. 2023

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Health care insurance systems

Abstract

The quality and availability of health care are one of the basic indicators of the quality of life and the sustainable development of society. Due to the growth in the number of migrants in the Czech Republic, the topic of health insurance for foreigners is very topical. The main aim of the thesis will be to compare the health insurances, offered for foreigners from the third countries with temporary and permanent residence in the Czech Republic, to identify the differences between offered types and to evaluate these offers from the users' views.

The first part of the thesis is processed using the method of literary research and defines the types of health systems, types of health insurance and insurance rules for foreigners in the Czech Republic. The second part of the thesis contains an analysis of the health insurance market in 2010-2021 – the number of foreigners who receive health care and the amount of financing of this care from public and commercial sources.

Furthermore, the results of a questionnaire survey in which foreigners from third countries participated are analyzed here. The aim of the survey was to find out and compare the opinions of holders of public and commercial insurance on the quality, price and scope of health care in the Czech Republic.

Keywords: foreigners, health, health care, health insurance, health system, migrants, VZP.

Systemy zdravotního pojištění

Abstrakt

Kvalita a dostupnost zdravotní péče jsou jedněmi ze základních ukazatelů kvality života a udržitelného rozvoje společnosti. Kvůli růstu počtu migrantů v ČR je téma zdravotního pojištění cizinců velmi aktuální. Hlavním cílem práce bude porovnat zdravotní pojištění, nabízená pro cizince ze třetích zemí s přechodným a trvalým pobytem v ČR, identifikovat rozdíly mezi nabízenými typy a zhodnotit tyto nabídky z pohledu uživatelů.

První část práce je zpracována metodou literární rešerše a vymezuje typy zdravotních systémů, typy zdravotních pojištění a pravidla pojištění cizinců v ČR. Druhá část práce obsahuje analýzu trhu zdravotního pojištění – počet cizinců, kteří čerpají zdravotní péči, a objem financování této péče z veřejných a komerčních zdrojů.

Dále jsou zde zanalyzovány výsledky dotazníkového šetření, kterého se zúčastnili cizinci z třetích zemí. Cílem šetření bylo zjistit a porovnat názory držitelů veřejného a komerčního pojištění na kvalitu, cenu a rozsah zdravotní péče v ČR.

Klíčová slova: cizinci, zdraví, zdravotní péče, zdravotní pojištění, zdravotní systém, migranti, VZP.

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List of abbreviations

| | |
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| HI | health insurance |
| NBER | National Bureau of Economic Research |
| OECD | Organisation for economic co-operation and development |
| PHI | Public Health Insurance (veřejné zdravotní pojištění) |
| VZP | The General Health Insurance Company (Všeobecná zdravotní pojišťovna) |
| WHO | World Health Organization |

1 Introduction

In the Czech Republic, various insurance companies offer different types of health insurance for foreigners. Unlike Czech citizens, the choice between individual types and insurance providers is limited by legislative requirements for foreigners. They do not have much freedom in choosing the appropriate insurance and can therefore be discriminated against in terms of the lower quality or volume of health care they receive. Prices and offers of services included in insurance for foreigners also often differ from insurance for citizens of the Czech Republic. The research in this work will therefore be very current and will also touch on the social issues of the life of foreigners in the Czech Republic.

The quality and availability of health care are one of the basic indicators of the quality of life and sustainable development of society, therefore their evaluation and continuous monitoring are very important for a developed country such as the Czech Republic. The health insurance system can improve or, on the contrary, worsen the quality and availability of medical services for different categories of the citizens.

Due to the growing immigration from third countries, which was not stopped even by the coronavirus crisis, questions related to the rules of residence and the quality of life of foreigners are very topical.

Legislation regarding the regulation of the stay of foreigners, including the rules of their health insurance in the Czech Republic, changes frequently and it is quite difficult to find your way around it. In particular, foreigners who are used to different patterns of behavior and procedures when contacting the services of health insurance companies and facilities are often confused by the information. There are particularly big differences between the established rules in the EU countries and the countries of the former Soviet Union. Foreigners from post-Soviet countries residing in the Czech Republic often encounter problems in meeting all legal requirements for obligatory insurance. Often, due to lack of information and confusion about the new rules, they fall into the hands of fraudsters. An up-to-date overview of the rules and a comparison of the different types of insurance available to foreigners in the Czech Republic will have an obvious practical benefit.

Health care costs are an important item of the state budget and commercial insurance companies. The optimal setting of the health care financing system is not possible without the participation of health insurance companies. The question of the cost of health care for

foreigners and the comparison of the amounts spent by commercial insurance companies and also from the state budget as part of public health insurance are very important aspects that this work will address.

2 Objectives and Methodology

2.1 Objectives

The main aim of the thesis will be to compare the health insurances, offered for foreigners from the third countries with temporary and permanent residence in the Czech Republic, to identify the differences between offered types and to evaluate these offers from the users' views.

The partial goals will be:

- to characterize the system of health insurance, its functions and principles of operation,
- to identify health insurance and its types,
- to analyse the Czech market of the health insurance for foreigners,
- to conduct a survey within foreigners from the CIS countries, living in the Czech Republic and find out opinion of these people on the offer of health insurance.

2.2 Methodology

The diploma thesis will be divided into two main parts – theoretical and practical. The information needed to write the theoretical part of the work will be obtained mainly from the literature. The aim of this part will be to identify health insurance and principles of the health insurance system, what are the types of insurance, what are the differences between them. The method of literature review will be applied. According to Chrastina (2019, p. 135), this method makes it possible to create a basis of existing scientific knowledge on which the researcher can further “build”. The benefit is also the ability to identify general trends in the form of advantages, disadvantages or gaps in the relevant studies, and to define areas to focus on in your own research.

The comparison of the public and commercial health insurances, offered for foreigners in the Czech Republic, will be made. The comparison will take into account such criteria as the conditions for concluding insurance contracts, or requirements for this type of insurance, the scope of services and the procedure for drawing health care. In the practical part of the work, an analysis and comparison of the costs of health care provided to foreigners

in the Czech Republic, financed by commercial insurance companies and from public sources, will be carried out. From the comparison, it will be possible to find out when health care financing is more demanding – when the insured is a foreigner with PHI or with commercial insurance.

Analysis of the development of the health insurance market (indicators)

The practical part will be conducted by the method of analysis of statistical data. These data will be drawn mainly from the Czech Statistical Office official website. Selected period is 2010-2021 (depends on data availability).

The following indicators and their development in the period 2010-2021 are evaluated, as they allow to evaluate and compare the demand and supply for health insurance for foreigners in the Czech Republic:

- number of foreigners in the Czech Republic (total; by type of stay in the Czech Republic – permanent and temporary; by citizenship – EU countries and third countries) – data are drawn from the CZSO database,
- use of health care by foreigners – the number of foreigners who used health care in facilities in the Czech Republic, the costs of paying for health care in these facilities.

Data on the use of health care by foreigners are drawn from the CZSO and ÚZIS databases. It is important to point out that this statement does not include the use of health care by foreigners from the public health insurance. The statement refers to health care that was paid for from other sources: insurance contract in the CR or abroad, cash, state authorities. At the same time, the number of foreigners also includes asylum seekers who are accommodated in asylum facilities and whose health care is paid for by the Ministry of the Interior. Conversely, foreigners with refugee status and an assigned visa should no longer be included in the statistics as participants in public health insurance. The reporting units are selected inpatient care providers (DRZAR 101 – teaching hospital, 102 – hospital, 103 – specialized hospital, 104 – psychiatric hospital and 105 – follow-up care hospital). The subject of data collection is information on foreigners and costs, regardless of

whether the foreigners received health services from these providers in the form of ambulatory, one-day or inpatient care.

Foreigners are divided by country of origin (EU countries, 3rd countries, main source countries of migrants from 3rd countries – Ukraine, Vietnam, other post-USSR countries), by age groups. The statistics also present data on health care provided to foreigners, divided according to the source of funding for that care – Czech and foreign commercial insurance companies, state authorities, cash (foreigner as self-payer).

- Unpaid health care – number of debtors (foreigners), amount of the total debt. The data is also divided according to which demographic group the debt falls to (foreigners from Ukraine, post-USSR countries, Vietnam, EU, etc.).

A custom calculation is made:

$$\text{Calculation of unpaid health costs per 1 foreigner, 2021} = \text{Unpaid costs} / \text{number of foreigners-debtors} \quad (1)$$

The calculation makes it possible to find out how significant the sums owed by foreigners for the provided health care are, calculated per person-debtor. The amount of total unpaid costs for health care, provided to foreigners from the selected country, is divided by the number of foreigners from this country who are debtors for health care. It should be noted that the calculation is based on data related to health care, provided to foreigners primarily as self-payers. So these debts should mostly be covered by foreigners' cash. Their debts will not be covered by commercial, public insurance or the state.

Questionnaire survey

A survey among foreigners from the third countries will be also conducted. Respondents will be asked about how effectively the health insurance systems work in their opinion and how they are satisfied with the offers.

Research hypothesis:

- Foreigners with permanent residence in the Czech Republic are more satisfied with the health care, which is allowed them according to their health insurance, than foreigners with temporary residence.

- Foreigners with temporary residence in the Czech Republic more often than foreigners with permanent residence state the insufficient scope of their insurance as a reason for refusing to visit a doctor in their illness.

Object of research: health insurance of foreigners with temporary and permanent residence in the Czech Republic.

Time period of the data collecting: Autumn 2022.

Online questionnaire forms were used – on Google Forms, as well as paper samples. The online questionnaire was distributed among acquaintances, on social networks and on thematic forums on the Internet. The survey method was a purposeful selection, where the conditions for participation in the survey were citizenship of the respondents (third country), residence in the Czech Republic for more than 1 year, presence of a long-term or permanent residence. It is described in the introduction of the questionnaire (see Appendix A). In order to compare respondents' views on public and commercial health insurance, the aim was to obtain approximately the same number of completed questionnaires from people with different types of insurance. Therefore, the completed questionnaires were continuously checked and, as needed, the answers of respondents from certain groups were collected. The completed questionnaires were checked for completeness and the data were transferred to excel tables, where they were subsequently processed.

3 Literature Review

3.1 Health systems in the world

Health systems became more and more complex in the last three decades in the world (Reibling, Ariaans, Wendt, 2019, p. 611). Before their types will be described, the main terms are defined. They are related especially to health needs and healthcare services, which form systems of healthcare in different countries.

3.1.1 Definition of basic terms – health system, health needs, healthcare services

According to Krebs et al. (2015, p. 349), a health care system can be defined as an organizational set of ordered relationships between the public, health care providers, funding entities, and bodies representing government policy within which health care is delivered. This definition emphasizes the participants in this system.

The National Bureau of Economic Research (NBER) Center of Excellence defines the health system according to the types of arrangements between subjects (providers) of health care: “(1) organizations with common ownership, (2) contractually integrated organizations (e.g., accountable care organizations), and (3) informal care systems, such as common referral arrangements. Systems include organizations combined horizontally (e.g., a hospital system) or vertically (e.g., a multihospital system also owning physician practices and post-acute care facilities).” (Agency for Healthcare Research and Quality, 2017).

According to Ivanová (2014, p. 6), the healthcare system refers to that part of the social system, which consists of measures, institutions, organizations and activities that try to treat diseases, prevent them and promote health. This definition also defines the participants of the system, but also indicates the main role or function of this system (efforts to treat and prevent disease, promote health).

Each country has a different healthcare system, as the development of these systems took place differently in each country. Also, social, economic, cultural and political conditions differ between countries, which contributes to differences in health systems. However, the primary goal of all healthcare systems is always to meet the widest possible range of healthcare needs. The concept of health needs is difficult to define (Durdisová and Langhamerová, 2001, p. 37).

The authors of the Great Medical Dictionary (Col. of authors, 2022a) state that health need is an ambiguously defined concept, expressing a state where an individual or a group does not receive something in connection with health and health care. A common distinction is made between felt, latent, satisfied, unsatisfied, professionally defined and normative health needs. The authors of the Great Medical Dictionary (Col. of authors, 2022a) also draw attention to the fact that it is desirable to distinguish between the need for health and the need for health services.

Health services should be understood as an organized system of professional institutions and workplaces, the aim of which is to professionally monitor and solve the health needs of the population. This system provides health care to individuals and social groups and includes a wide range of preventive, diagnostic, therapeutic, educational and other professional activities (Col. of authors, 2022b).

According to the NACE classification, health services belong to the following categories:

“Q – Human health and social work activities

86 – Human health activities

861 – Hospital activities

862 – Medical and dental practice activities

869 – Other human health activities

87 – Residential care activities

871 – Residential nursing care activities

872 – Residential care activities for mental retardation, mental health and substance abuse

873 – Residential care activities for the elderly and disabled

879 – Other residential care activities

88 – Social work activities without accommodation

881 – Social work activities without accommodation for the elderly and disabled

889 – Other social work activities without accommodation” (Nace.cz, 2018).

In the field of healthcare, it is also difficult to classify healthcare services as a certain type of goods due to their heterogeneity. There are three main types of goods, under which also health services fall (Hobza, Hobza jr., 2016, p. 31):

- public goods – non-excludable and non-rivalrous goods, marginal costs for the next individual (consumer) are zero,
- private goods – excludable and rivalrous goods,
- mixed public goods – possible excludable and rivalrous goods.

However, health services can belong to all three types of goods listed. Nevertheless, “intangible” mixed collective goods prevail. In the following table no. 1, it can be seen, which type of goods individual health services belong to.

Table 1 **Types of goods in healthcare**

| Category of goods | Content of goods | Producer (provider) |
|------------------------------|--|--|
| Pure non-market good | obligatory vaccination | state and non-state medical facilities |
| positive externality | epidemiological care | |
| with automatic consumption | preventive treatment | |
| with optional consumption | prenatal care | |
| Mixed public good | outpatient and hospital care and treatment | state and non-state medical facilities and institutes |
| | care of social institutions | |
| Trust good | antibiotics, drugs | pharmacies, medical prescriptions |
| good under protection | some vitamins | |
| Natural monopoly good | healing springs | state and non-state spa and treatment facilities |
| | spa and climatic places | |
| Non-pure market good | tariff and above-standard and specialized care | dental facilities, orthopaedic and rehabilitation facilities |
| Market good | highly specialized treatments | specialized clinics (state and non-state) |
| monopoly and oligopoly | plastic surgery | |
| | alternative medicine products | alternative medicine facility |

Source: own processing, Krausová (2010, p. 8)

3.1.2 Entities in the health systém

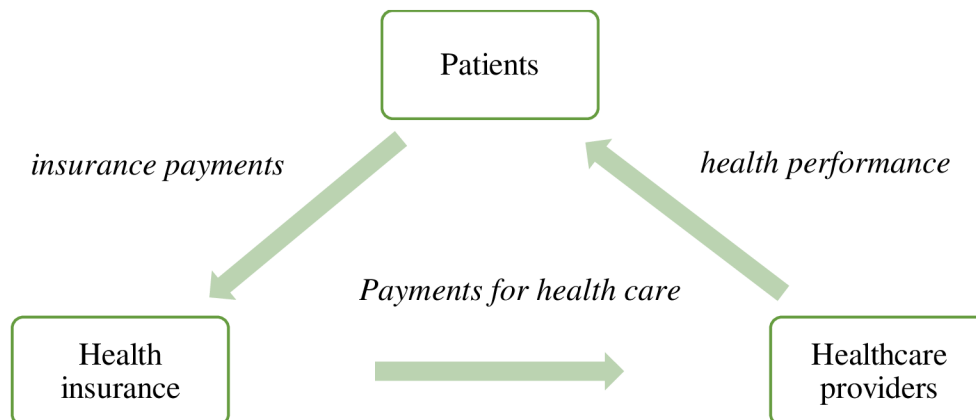
The system is made up of various entities and relationships between them. Historically, there were only two subjects in the healthcare system – patients and healthcare providers (most often doctors). Over time, “intermediary” entities entered the system, which

enabled the provision of health care for all citizens thanks to the application of the principle of solidarity. Previously, the principle of solidarity was not applied, everyone had to pay for health care themselves. There were many citizens who could not afford health care for financial reasons (Durdisová & Langhamerová, 2001, p. 48).

Entities representing government policy have integrated into the health sector for the reason that, according to Durdisová and Langhamerová (2001, p. 49), the health of citizens is perceived as “public wealth” and “a source of social growth of the country”, according to this theory, everyone also has the right to health.

The diagram of the health system, showing the main entities, is shown in the figure no. 1.

Figure 1 **Entities in the health system**



Source: own processing, Krausová (2010, p. 11)

Healthcare providers

Healthcare providers can be commercial or public entities. They provide healthcare through a network of healthcare facilities that is provided by the state, municipalities, natural or legal persons. Healthcare facilities in the Czech Republic must operate according to budget rules issued by the Ministry of Finance (Durdisová, 2005, p. 97).

There are state and non-state, inpatient and outpatient, contractual and non-contractual medical facilities (Krebs et al., 2015, pp. 372-373):

- the division into state and non-state medical facilities is based on the criterion of the type of ownership. State medical facilities appear in the case of “state

interest”. These are, for example, hygiene services that are financed through the state budget;

- the type of care provided divides medical facilities into inpatient and outpatient. Outpatient facilities include primary, secondary and tertiary health care. Bed facilities (hospitals) can be state-owned, which are owned by the state, public, which are owned by a region, city or municipality, and private (property of a private entity);
- the last division is based on the principle of health care reimbursement, which results in contractual and non-contractual healthcare facilities. Contract medical facilities have a signed contract with health insurance companies, health care is paid for through selected insurance premiums within the public health insurance. On the other side, there are non-contractual medical facilities that do not have the aforementioned contract signed, and therefore patients must pay for the health care provided from their own resources.

Patients

A patient is an entity that pays health insurance or taxes and uses health care according to its health needs. Standard health care is paid for by health insurance companies, and this health care is free for patients at the time it is provided. The patient has the right to health care and has the option of choosing a health insurance company, doctor and medical facility. The choice of doctor and medical facility is limited by the contractual relationship between the health insurance company and the doctor or medical facility. If the contractual relationship between the health insurance company and the doctor or medical facility is not concluded, the patient must pay for the health care (Durdisová, 2005, p. 100).

Funding entities

Funding entities can include (Durdisová, 2005, p. 101):

- state (state budget),
- insurance system.

The state enters into the relationship of three key entities (health care providers, patients and financing entities), because health is considered not only a private matter, but above all a “public matter”. The state tries to ensure quality, availability of health care, economic cost, efficiency, equality and social acceptability, which requires formulating political goals, securing financial resources and creating a network of medical facilities (Durdisová, 2005, pp. 107-110).

An entire chapter is devoted to defining the content of the activity and types of health insurance companies. The basic division of the insurance system is into public insurance and commercial insurance.

In connection with the role played by individual health system participants and the type of financing, there are different health systems in the world.

3.1.3 Classification of health systems

Different approaches to the classification of healthcare systems can be found in the professional literature.

The first attempts to classify health systems can be associated with M. Field, who in 1967 used two key dimensions (ownership and doctors’ autonomy) to define different types of systems. In connection with these dimensions, four types of health systems are defined (Reibling, Ariaans, Wendt, 2019, p. 612):

- pluralist health system – the private provision is high, medical profession has high autonomy,
- health insurance system – social insurance actors have a great role and the medical profession has high autonomy,
- health service system – most of facilities are owned by state, doctors have high autonomy,
- socialized health system – all facilities in the healthcare are owned and controlled by state.

In modern literature, the following designation of the three basic models can be also found (Durdisová, 2005, p. 153):

- Bismarck model (compulsory national health insurance),
- Beveridge model (National Health Service),
- market model – pluralist, liberal model (market concept of health care).

In addition, Ivanová (2014, p. 11-12) mentions a fourth type – Semashko system. This system is hardly used anymore, so it is not mentioned in many modern sources.

Hamplová (2019, pp. 50-51) also defines four types of systems, but groups them into two main groups:

- state healthcare (Beveridge model, Semashko model),
- health system based on insurance (Bismarck model, market model).

Beveridge model

The Beveridge model is based on the fact, that citizens pay fees to the state in the form of taxes, and the state then fulfills the function of redistributing the money obtained in favor of individual health facilities. It is typical for Great Britain, Spain and Greece (Durdisová, 2005, p. 144-145).

In this model, health care is provided for everyone regardless of payment options, therefore there is also a significant influence of the state. The most of hospitals are part of the National Health Service, private beds exist to a limited extent. Most of the specialized outpatient facilities, laboratories and radiodiagnostic workplaces are part of hospitals. The offices of general practitioners, dentists, pharmacies, specialist offices, a large part of sanatoriums, nursing care facilities are private (Ivanová, 2014, p. 13).

Semashko model

Semashko model is a centralist system and all medical facilities are the property of the state. In this case, healthcare is financed from state revenues through the state budget. The healthcare sector is centrally planned and healthcare workers are civil employers (Ivanová, 2014, p. 11-12).

This system was applied in all the former socialist states of Eastern Europe and in the former Soviet Union, and it still works in Cuba. Among the advantages of this system is

the guarantee of the availability of health care for all and equality of access to health care. The disadvantages are often long waiting times for specialized services and expensive benefits, limited free choice of doctor and facility, different levels of hospitals in terms of patient comfort (Hamplová, 2019, p. 51).

Bismarck model

The Bismarckian model is based on the fact that every person of working age pays a contribution from their income to health insurance, and this payment is accumulated in the account of the relevant health insurance company, which then distributes the funds to individual medical facilities according to the health care provided. The mentioned system is used, for example, in Germany, Austria, but also in the Czech Republic since 1991 (Durdisová, 2005, p. 144).

Outpatient medical services are performed by private doctors based on contracts with health insurance companies. Outpatient physicians are paid by capitation or by performance. The participation of the state in the healthcare sector is rather legislative, in the financial regulation of healthcare, in control and other public healthcare activities. Ivanová (2014, p. 16) points out that the specific forms of this system are different in every country.

The advantages of this system include, for example: universal availability of health care and equal access to all patients; the assurance of the insured that he will be provided with the necessary health care; high quality of provided health care; the patient's free choice of health care provider. Disadvantages include extensive and costly administration and the high price of the health care provided (Hamplová, 2019, p. 51).

The most successful example of the implementation of public health insurance for a population with a highly developed healthcare system is Israel. Financing of the health care system is made up of four sources: budget funds, which account for 37 % of total funding, health care tax (27 %), private funding (33 %), and donations from individuals and public organizations (3 %) (Khurami et al., 2022, p. 12).

Pluralist (liberal, market) model

This model is based on the “free market principle”, i.e. there is minimal regulation by the state. It is sometimes referred to as a liberal system (Ivanová, 2014, p. 17-18).

The basic principle of this model is the idea that health care is a matter for each individual, therefore health insurance is voluntary and non-entitlement. In this system, there are usually two forms of insurance – individual and employee, with the employer partially contributing to this insurance (Hamplová, 2019, p. 52).

Over the past three decades, the world has seen a steady increase in the participation of the private sector in the financing and provision of the health care system (Khurami et al., 2022, p. 12). Because of this, the application of the principles of the market model is being extended.

For a long time it was thought that U.S. had only one healthcare system – pluralist. In fact, U.S., a country with the most pronounced market economy, without any unified system, embodies various forms of healthcare organization (Wagner, 2021, p. 25).

Voluntary private health insurance is widespread and covers more than 80 % of the population in the U.S. Voluntary insurance pays for more than a third of all medical services. The share of private, commercial institutions in the U.S. is quite large, almost half of all hospital institutions. In these institutions, the price of medical services is very high, which not everyone can pay. There is no completely free medical care in the USA (except for some military groups). Some segments of the population get preferential medical care from the expense of public, federal or other sources of funds (Khurami et al., 2022, p. 12-13).

Modern healthcare systems are only “predominant”, since in almost none of the developed countries, such systems are presented in their pure form, without elements of other systems. In many countries of the world, mixed systems and various organizational forms exist and develop. For example, in Canada, Norway, Italy, Belgium, most of all funds for health care come from the state budget. In addition, funds also come from regional and public funds generated from mandatory taxes from the population and entrepreneurs (Khurami et al., 2022, p. 7).

Health systems are also complex and different. It is quite hard to compare them. Some countries, organizations and individual researchers have conducted different methods for evaluation of the performance of each health systems. For example, World Health

Organization (WHO, 2002) built its index, based on these indicators: disability-adjusted life expectancy, responsiveness and fair financial contribution. Organization for Economic Cooperation and Development (OECD, 2020) explored the relation between outcomes, resources and other factors of health. Bloomberg (2014) offers an index, where the country is ranked according to following criteria: life expectancy, health care cost as a % of GDP and per capita, change in these indicators and inflation.

Despite the fact that country rankings are published each year according to various health criteria, which of the health care models is the most efficient is still debated. Researchers further contribute to the evaluation of existing methods for assessing the performance of health systems. For example, Gaeta et al. (2017) use ten indicators of a different nature related to health expenditure and morbidity and mortality statistics to evaluate. Finally, they contributed to the conclusion that higher health spending correlates with better health status of the population. However, the study did not allow identifying the best and least performing healthcare system. Khurami et al. (2022, p. 14) state, the analysis of global trends in healthcare development shows that there is no ideal healthcare system model in the world.

3.1.4 Methods of healthcare financing

As it follows from the characteristics of different types of health systems, there are different options for financing health care.

According to Krebs et al. (2015, p. 374), the method of reimbursement of health care should match the following criteria:

- should suit all health care entities (health care providers, patients and funding entities),
- the settlement system should be suitable for all devices of the same type,
- should be simple and clear,
- should generate the lowest possible administrative costs,
- should be adaptable to ongoing changes.

There are many types of healthcare funding, such as fee-for-service, per-diagnosis payment, per-day payment or capitation payment. The method of allocation of public funds

is carried out on the basis of a contract between a health care provider and, most often, a health insurance company. Each of the listed types has certain advantages and disadvantages (see table 2).

Table 2 Advantages and disadvantages of the different types of health care fees

| | Advantages | Disadvantages |
|----------------------------------|--|--|
| Fee for service | evaluation of the doctor according to the number of performed actions, motivation of the doctor to find new patients | the doctor maximizes the number of reported procedures, the doctor's income depends on the illness of the patients, costly, administratively demanding |
| Payment for diagnosis | the same payment conditions for identically classified cases | costly, administratively demanding |
| Payment for treatment day | regular hospital income | prolonging the patient's stay in the hospital |
| Capitation fee | stable income of the office according to the number of registered insured persons | doctors are not interested in sick and old people due to the need for excessive health care |

Source: own processing, Durdisová (2005, p. 130), Krebs et al (2015, pp. 374–377)

3.1.5 Trends influencing modern health systems

Changes in the social and economic development of any society create fundamentally new challenges for the healthcare industry aimed at creating an accessible and effective healthcare system. Currently, the whole world is looking for ways to reasonably regulate the health care system in a market economy.

Among the main factors, that influence the health care systems in the 21st century all over the world, are (Kushmatova, Khakimova, 2022, p. 51):

- economic crisis,
- widening inequality,
- demographic trend of aging population,
- increasing levels of chronic disease.

The coronavirus disease (COVID-19) pandemic became a new factor, that influence and shape modern health care systems. Especially the role of hospitals and other institutions as centres of care was reconsidering, the use of “telehealth” was expanding and funds from

different sources were bringing together to improve the quality and delivery of healthcare services (Butler, 2020). COVID-19 pandemic boost economic, social and health disparities in the society (McCauley et al., 2021, p. 1), therefore the problem of health care availability became more relevant.

At the 72nd World Health Assembly in 2019 WHO identified typical problems in the world's health systems and defined them as obstacles to achieving the Millennium Health Goals. They are (Burdastova, 2020, p. 149):

- shortage of medical workers,
- uneven geographical distribution of health workers and health facilities,
- lack of access to health care services for the most vulnerable groups of the population,
- poor quality of medical care provided,
- low level of training, planning, forecasting, control and support of medical workers,

The report prepared by the OECD, WHO and the World Bank (2018) notes, that many countries of the world are characterized by a low quality of medical services, which entails holding back progress in improving the health of the population, increasing additional expenses of households, economies and health systems.

The current challenges for the development of health systems are the issues of providing quality and affordable health care and improving the payment system in the health sector (Crowley et al., 2020).

3.2 History of the health system in the Czech Republic

In this chapter, the overview of the history of the development of the healthcare system is divided into three parts – the earliest period of the birth of medicine, development in the 20th century and modern development after the revolution of 1989.

3.2.1 First mentions of the development of the health system in the Czech territory

The professional literature does not indicate what exactly was the first medical prescription in the Czech territory. The first documented source of legal codification of

health-related problems is apparently city decrees and regulations related to the great plague epidemic of the 17th century, brought to the Czech territory by Sweden during the Thirty Years' War. These were the so-called anti-plague files and plague regulations, the measures of which were supposed to have a preventive effect against the further spread of the plague (Stehlíková, 2017, p. 11).

For a long time, the church was a holder of health knowledge. Convents, church facilities played an important role in the healthcare system in medieval times.

However, the real turning point in the history of medicine in the Czech territory was brought only by the time of Maria Theresa and Joseph II. At that time, healthcare began to be organized under centralized administration. In the patents of the General Medical Order of 1752 for Moravia and 1753 for Bohemia, fixed rules were laid down for all medical personnel. In 1753, the court health deputation also began to supervise the health matters of the whole of Austria-Hungary. Joseph II continued his mother's reforms. He was particularly consistent in the educational requirements of all healthcare workers. It was therefore forbidden for anyone to carry out treatment completely arbitrarily without examination and authorization. This led to an increase in the role of the state in the healthcare system.

The 19th and 20th centuries saw the creation of a healthcare network and the development of citizens' health care. Healthcare systems differ from each other in terms of quality, availability of care, efficiency and acceptability for the population (Janečková, 2009, p. 82).

3.2.2 Health system in the 20th century and before the revolution

The health system of the First Republic was based on the principle of compulsory health insurance. However, health insurance only covered salaried workers. At that time, there were about three hundred health insurance companies in the Republic. The insurance covered basic health care provided by general practitioners and public hospitals. The insurance also covered family members of the insured (Vurm et al., 2007, p. 12).

After the creation of Czechoslovakia, sickness insurance for workers was regulated by Act No. 221/1924 Coll., which regulated the insurance of employees in case of illness, disability and old age. Approximately fifteen million inhabitants lived in the First Republic of Czechoslovakia, and 3,500,000 persons and family members participated in the sickness

insurance, who were also insured by these employee insurance policies. Roughly half of the entire population was insured (Gladkij, 2003, p. 32).

In 1948, sickness and pension insurance were unified according to Act No. 99/48 Coll., on national insurance. It was a system of national insurance companies managed by the Central National Insurance Company. Every insured person was entitled to paid medical care in the given scope, uninsured citizens had to pay for the treatment by direct payment (Gladkij, 2003, p. 33).

In the same year, hospitals, medical institutions, spas and springs were nationalized. The nationalization of the healthcare industry and drug distribution was also completed. However, the fragmentation of the healthcare network into individual departments was still evident. Finally, in 1952, all medical organizations came under the administration of the Ministry of Health, with the exception of the armed forces and medical education.

In the 1950s, the basic link of the network of health services became the health district, which brought together basic curative preventive care for adults, children, women and dental care. The establishment of hygienic and epidemiological services began. National health institutes were established in large districts.

In Czechoslovakia, Semashko's model began to be applied, when health care found itself fully in the hands of the state. In 1951, Act No. 102/1951 Coll., on the reconstruction of national insurance, was approved. The legal and de facto control of healthcare by the socialist state was completed by Act No. 103/1051 Coll., on unified preventive and curative care.

Until 1990, the network of medical facilities in the Czech Republic was built on a territorial three-level system (republic, region, municipality). All care, with the exception of dentistry, was paid for by the state from general taxes and therefore provided without direct payments (Daňková et al., 2010, p. 28).

Health services began to be oriented mainly according to territory. According to the place of residence, every citizen was assigned a general practitioner, if they did not use a doctor at the workplace, a hospital or a polyclinic. The territorial structure of the network of healthcare facilities built in this way functioned in this way until 1990 (Holub et al., 2005, p. 43).

3.2.3 Post-revolutionary development of the health system

The changes that the Czech healthcare system underwent after the 1989 revolution were reflected in both inpatient and outpatient care, as well as in the structure of the entire healthcare system. The former health care system, run by the state and funded centrally by taxes, has been replaced. This created a healthcare system in which insurance companies were the main entities responsible for financing and organizing healthcare. In the early 1990s, the Regional and District Institutes of National Health disappeared. In 1992, the General Health Insurance Company (VZP) was founded by the Act No. 551/1991 Coll. Other health insurance companies in the Czech Republic were founded in next years by the Act No. 280/1992 Coll. (VZP, 2022).

In 1990, the concept of the health care system was created by the Ministry of Health. The key principles of this concept related to the functioning of the healthcare sector (Pudichová, 2015, p. 15):

- the state guarantees adequate health care to all citizens of the Czech Republic,
- the health care provided can be compared with the competition,
- a citizen has the right to freely choose a doctor and medical facility,
- the elimination of the monopoly position of the state health service; health care can be provided regardless of the type of ownership (state, municipality, church, private),
- a medical facility with its own legal personality is a basic element of the public healthcare,
- the center of medical care is primary care, especially outpatient care,
- healthcare is financed from several sources (state budget, health insurance, municipalities, taxes...),
- mandatory health insurance is a key part of the health care system.

In 1991, funding was earmarked for the organizations of the Ministry of Health, and this was the first major change in the reform. In 1992, the second major change took place, when VZP started its activities, by offering reimbursement of health care for providers. In 1993, VZP started collecting health insurance from insured persons and subsequently became, together with other insurance companies, the main place for reimbursement of

expenses for medical services by medical facilities. For the first three years of the existence of health insurance companies, the medical care provided was covered by performance payments, which led to the pursuit of points and thus to a considerable waste of funds. After 1997, insurance companies switched to capitation payments for primary care physicians for individual registered patients (Daňková et al., 2010, p. 29).

Privatization in the 1990s resulted in a rapid increase in the number of medical facilities. In 1989, less than 8 000 facilities were registered, in 1993 – 17 000, in 2009 – almost 28 000 healthcare facilities were registered in the Czech Republic, employing 45 000 doctors and 106 000 non-medical workers with professional qualifications (Daňková et al., 2010, p. 29).

The changes in the field of inpatient care mainly concerned hospitals and their transformation into joint-stock companies. Staffing in ambulatory care began to steadily increase, and specialized ambulatory care was moved from hospitals to specialist offices. Due to the aging of the population, completely new health care facilities aimed mainly at seniors (home care agencies, hospices) began to emerge, and the number of beds in follow-up care in hospitals and treatment institutes also increased. Provision of primary care has been at a good and stable level for a long time, the problem arises in the aging of the population of doctors who provide it (Daňková, 2010, p. 33).

Currently, health insurance companies play an important role in the health system of the Czech Republic.

3.3 Health insurance in the Czech Republic

The insurance system is the provision of health care at the expense of deductions from wages and the income (taxes) of entrepreneurs and the state budget. The size of deductions in different countries is different. Officially, health insurance began in the second half of the 19th century, with the so-called Insurance laws of German Chancellor Otto von Bismarck in 1881. The Workers' Accident Insurance Bill was passed in 1883. Since then, in Germany, and then in a number of other countries, including the Czech Republic, such laws have been adopted, which laid the foundation for the health insurance system (Bismarck's system) (Khurami et al., 2022, p. 10).

It is appropriate to distinguish two basic types of health insurance. There are statutory and private health insurances according to the degree of voluntary participation. The division of health insurance into statutory and private depends only on whether participation in it is mandatory or voluntary. Statutory health insurance can be operated by both public and private entities, and the same is true in the field of private health insurance.

Statutory health insurance is compulsory by law for all citizens in a given country or is compulsory at least for certain groups of the population. Groups of the population who must participate in the statutory health insurance can be defined by their employment status, the amount of their income or their age. Statutory health insurance can also be considered national health services operated by the state and providing health services universally to all citizens (Čeledová, Holčík et al., 2018, p. 140).

Public health insurance (PHI) is based on the principle of solidarity and the “sharing of health risk by all citizens”. Health insurance companies collect premiums from citizens. The payment of insurance premiums is an obligation for every citizen, because if this obligation were not established, it would be difficult to maintain the principle of solidarity in this system (Durdisová, 2005, pp. 101-103).

Unlike public health insurance, commercial insurance is based on a private basis. A person becomes a participant by their own decision. It can be persons not covered by statutory health insurance or persons who are participants in the statutory health insurance system, but for various reasons want to increase their insurance protection with one of the forms of so-called complementary health insurance (Čeledová, Holčík et al., 2018, p. 140).

While with public health insurance the risk is shared between all citizens, with commercial insurance the risk is shared only between citizens with the same or similar contract. For commercial insurance, patient co-payment is typical, which means that the insured must pay part of the costs associated with his treatment from his own resources. There are problems associated with this system, the essence of which lies in the fact that each citizen has a different right to health care. It also happens that the objective need for health care is not met and there is a group of uninsured people, either because they don't want to, can't, or the insurance company doesn't want to insure them because of their health condition. In any case, commercial insurance is on a voluntary basis, which means that no one can be forced to take out insurance.

Foreigners in the Czech Republic are either entitled to participate in the Czech public health insurance system, or they must take out commercial health insurance.

If they are participants in the Czech system, they must of course pay insurance premiums. This applies, for example, to persons who have permanent residence in the territory of the Czech Republic (regardless of citizenship), or persons who do not have permanent residence in the territory of the Czech Republic, but are employed by an employer based in the territory of the Czech Republic. In some cases, the state is the payer of health insurance premiums for foreigners.

In the Czech Republic, the health insurance system is based on the principle of solidarity, i.e. each citizen contributes according to his possibilities (according to established standards and rules, usually a certain percentage of the assessment base) to the fund of health insurance companies and in turn takes from it according to his needs for health care. This type of health insurance is part of comprehensive social security. This comprehensive security system includes, in addition to health insurance, accident and pension insurance. Citizens (Czechs, permanent residents, employed foreigners in the Czech Republic) are obliged to pay health and social insurance. These insurances make up a certain percentage of the income (Hamplová, 2019, p. 51). Legislatively, the Czech Republic has so-called state insured persons (pensioners, children, etc.), for whom the state pays the insurance premiums (Čeledová, Holčík et al., 2018, p. 142).

3.3.1 Health insurance companies, provided public insurance

As stated by Vostatek (2013), there is officially a system of „public health insurance“ in the Czech Republic, provided by the General Health Insurance Company (VZP) and 6 other „employee“ health insurance companies. These „employee“ health insurance companies are (Ministry of Health Insurance, 2020):

- Military Health Insurance Company of the Czech Republic,
- Czech Industrial 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 Cashier, Health Insurance Company.

All six employee insurance companies are united in the Association of Health Insurance Companies, which defends the common interests of health insurance companies and their clients with the main goal of improving the quality of services for their clients (Ministry of Health, 2020).

Health insurance companies are considered as independent legal entities whose task is to provide health insurance. This very extensive activity mainly includes, on the one hand, the collection of insurance premiums from insurance premium payers and, on the other hand, the payment of health services to health service providers. All health insurance companies have comprehensive professional and economic responsibility for paid health services provided to each of the more than 10 million public health insurance policyholders. In accordance with these core tasks, the activities of health insurance companies also include a number of other related areas, such as keeping records of insured persons (the VZP CR maintains a central register of all insured persons), keeping records of health service providers, control activities (of both insurance premium payers and health care providers services), and others (Ministry of Health, 2020).

Among the main obligations of health insurance companies is to ensure the provision of paid services to their insured, which must be available locally and in time. They fulfill this obligation through providers with whom they conclude contracts for the provision and payment of paid services. These providers form the so-called network of contractual providers of the health insurance company. Health insurance companies must ensure that the network of contracted providers is sufficiently filled and has an optimal structure. Related to this is the need to carry out economic evaluations of proposed contracts and decide on the need to conclude contracts with other providers (Ministry of Health, 2020).

The activity and management of health insurance companies are subject to inspections carried out in accordance with the wording of the relevant laws by the Ministry of Health in cooperation with the Ministry of Finance. Independently of the supervision carried out by the Ministry of Health and the Ministry of Finance, the management of health

insurance companies is also subject to the control of the Supreme Audit Office (Ministry of Health, 2020).

The competition in the context of public health insurance between these companies is basically only formal. In essence, the Czech Republic still has a system of detailed central control, or national health administration. Thanks to this system, the country has relatively low public expenditure on health care in relation to GDP (7-8%) (Čeledová, Holčík et al., 2018, p. 142). However, in the context of commercial health insurance, competition is much higher and many more companies provide products in this area. Commercial health insurance is mandatory (and is the only insurance option) especially for foreigners with a long-term stay for the purpose of studying or family reunification.

3.3.2 Health insurance companies, provided commercial insurance – before 2021

At the beginning of this chapter important changes in the regulation of insurance, that took place in 2021 should be noted.

During the long period until the adoption of the new legislation in August 2021, the rules applied, that a foreigner who is not entitled to PHI (i.e. does not have a permanent residence and is not an employee in the CR) must conclude a contract with a commercial insurance company. In the case of a short-term stay of up to 90 days, he was obliged to take out insurance for immediate care. In the event that he had a long-term stay of more than 90 days, he should have taken out comprehensive health insurance, which covers not only urgent care, but also other health care such as planned interventions, preventive visits to doctors, etc. These conditions, which were valid until 2021, must be described in detail, because they were applied in the period that is examined in the practical part of the work on the basis of available statistics.

Insurance companies that provide commercial health insurance for foreigners in the Czech Republic are: MAXIMA, ERGO, UNIQA, Slavia, PVZP, AXA. This means that foreigners have to choose one of these companies (InfoCizinci, 2022).

Commercial insurance for foreigners in the Czech Republic was divided into short-term (for necessary care) and long-term (for comprehensive care), but was always agreed for a fixed period (YesPojištění, 2022):

- short-term health insurance for foreigners (including necessary and urgent care) was suitable for students or foreign visitors who will stay in the Czech Republic for less than 90 days. It only covers acute treatment when a doctor's help is necessary,
- long-term and comprehensive health insurance for foreigners was intended for foreigners who will live in the Czech Republic for more than 90 days. The insurance company paid not only the costs associated with immediate care, but also with preventive examinations and some dental procedures. Arranging a comprehensive insurance policy was also one of the conditions for granting a long-term residence permit in the Czech Republic. It was also possible to choose a favored option that will protect the partner (husband or wife) and children.

Citizens of the European Union, who live in the Czech Republic, are not required to take out commercial health insurance for foreigners, although it is often recommended to them (YesPojištění, 2022). EU citizens without commercial insurance are only entitled to basic medical treatment in acute cases and only in state facilities. They have to pay for preventive examinations and additional examinations without insurance as self-payers and can subsequently apply for a refund from their home insurance company if they meet the given conditions (preliminary consent of the insurance company for the procedure or completion of the procedure to which they are entitled in their homeland).

The process of arranging commercial health insurance is relatively simple – e.g. online, directly at the branch of the insurance company or through brokers. It's similar to the process of taking out any other type of insurance – for example car accident insurance or travel insurance. Competition on the commercial insurance market is more pronounced than among public insurance companies, so companies try to adapt as much as possible to the customer and facilitate the process of obtaining insurance. Sometimes there are also price wars in this market between insurance brokers, who fight for clients by providing the highest possible discount from the basic price of the insurance. Due to the reduction of this discount, brokers lose their earnings, the work of insurance brokers becomes less attractive, there are becoming fewer brokers on the market and price offers rise again.

Commercial insurance companies are often criticized from the point of view of the insufficient scope of health care provided for foreigners and the complicated processes of communication between medical facilities, the insurance company and the patient. In addition, cooperation with commercial insurance companies is very exacting for medical

facilities, because negotiations with each insurance company are different, the methods of payment for care, communication, record keeping, etc. are also different. It is also necessary to constantly monitor the changing conditions of commercial insurance and legislative requirements for health insurance for foreigners. It also increase a load on health care workers. Insufficient or poor information also often causes complications for patients who encounter large health care costs that are not covered by their insurance companies.

3.3.3 Health insurance companies, provided commercial insurance – new rules after 2021

Based on the new legislation governing the stay of foreigners in the Czech Republic, which applies from 2 August 2021, a foreigner can take out commercial health insurance at any insurance company for only 90 days. For stays longer than 90 days, they must use the services of the VZP insurance company.

After taking out the insurance, the client will receive from the commercial health insurance company contacts for contracted medical facilities that he can visit. Alternatively, the insurance contract will warn the client that you must contact the assistance service before treatment, which will direct him to a suitable doctor.

Individual offers of commercial insurance differ from each other in terms of insurance limits or the number of contractual medical facilities. The insurance limit for one insured event is at least EUR 60 000 in the case of necessary and urgent care and EUR 75 000 as part of comprehensive health insurance.

The commercial comprehensive health insurance for foreigners VZP PLUS reimburses the costs of:

- preventive and dispensary health care, including care related to pregnancy and childbirth,
- acute dentistry,
- outpatient medications prescribed by a doctor,
- medical equipment,
- above-standard health services (e.g. vaccinations, over-the-counter medicines, hormonal contraception, dental hygiene, etc.) up to the limit for “Over-standard” specified in the insurance contract.

3.3.4 The differences between public and commercial health insurance in the Czech Republic

The difference between public health insurance and commercial health insurance is mainly in the number of contracted hospitals. With commercial health insurance, the insured only has the right to health care in contracted hospitals, listed in the list of workplaces in the insurance contract from the insurance company (Brabec, 2018).

Another difference between public health insurance and commercial health insurance is that a patient can visit the doctor for preventive check-ups several times a year and do not have any special conditions. With commercial health insurance, people are usually contractually limited to a preventive check-up once or twice a year, unless it is a serious health problem (Brabec, 2018).

Another difference between public and commercial insurance concerns the methods of premium payment. Contributions are paid for public insurance (usually monthly according to the schedule of payments for the year ahead). In the case of commercial insurance premiums, the insured does not have to pay anything per month, but only pays the full amount once for the insurance for the specified period and according to the current price list. Some insurance companies offer the option of splitting the payment into several parts, according to the repayment schedule.

Advances on public insurance premiums depend on the assessment base, which takes into account a person's income. The price of a commercial insurance premium does not depend on a person's income at all, but on other factors that can affect the extent of the required health care. These are mainly (YesPojištění, 2022):

- age of the insured (seniors and children have higher premiums),
- number of insured persons,
- health status of the insured,
- type of product (only necessary care insurance is cheaper),
- territorial scope (validity only in the territory of the Czech Republic, in the Czech Republic and the Schengen area, in the Czech Republic and transit countries),
- duration of insurance.

3.3.5 Rules for the health insurance of foreigners

Foreigners in the Czech Republic must meet certain conditions in order to be entitled to participate in the public health insurance system. If the foreigner does not meet these conditions, he is obliged to take out commercial health insurance for the entire period of his permitted stay.

A foreigner must be a participant in the public health insurance system if he meets the following conditions (VZP, 2022):

- a foreigner has a permanent residence in the territory of the Czech Republic (a foreign national can get a permanent residence only at list after 5 years of continuous residence in the country; before a foreigner has a long-term residence, employee card or visa). Health insurance is created for these persons upon obtaining permanent residence in the territory of the Czech Republic and expires upon the death of the insured person or termination of permanent residence on the territory of the Czech Republic,
- a foreigner is from a country outside the EU/EEA/Switzerland, does not have a permanent residence, but is an employee of an employer that has its registered office or permanent residence in the territory of the Czech Republic, possibly meets the criteria enshrined in European regulations (e.g. is a dependent family member of a breadwinner insured under the regulations in the Czech public health insurance system), or is a citizen of one of the countries with which the Czech Republic has concluded an international agreement on social security, which also regulates the field of health insurance.

In simple terms, it can be said that three categories of foreigners are entitled to public health insurance: a) foreigners with permanent residence, b) foreigners-employees and c) foreigners from EU/EEA/Switzerland countries – both on the basis of employment and European regulations.

In some special cases, legally defined groups of persons are considered to be foreigners with a permanent residence permit. These are (VZP, 2022):

- asylum seekers for the period of validity of the decision on the granting of asylum,
- children born by asylum seekers,

- foreigners entrusted with substitute upbringing, if at least one natural person to whom the foreigner is entrusted is registered for permanent residence in the territory of the Czech Republic or there is an institution in the territory of the Czech Republic where the child is placed,
- children of foreigners from the moment of birth until the decision on the residence permit comes into force, if they are children of parents who have a permanent residence permit and submit an application for the grant of a residence permit for the child within the statutory deadline,
- foreigners enjoying temporary protection,
- foreigners who received a decision not to grant asylum, in which an obstacle to travel was stated according to the Asylum Act; the Police will grant such a foreigner a visa for a stay of up to 90 days, which entitles the foreigner to stay in the territory for a period of 15 working days from the day the visa is granted,
- foreigners who have been granted a visa for a stay of more than 90 days or a long-term residence permit for the purpose of tolerance (e.g. if travel is prevented by an obstacle beyond their control).

From August 2, 2021, newborn children of foreigners in the Czech Republic are to be compulsorily insured in the public health insurance system. The change concerns a child born in the Czech Republic whose mother has a long-term residence permit in the Czech Republic at the time of birth and whose father does not have permanent residence. The child will be a participant in the public health insurance system until the end of the month in which he reaches the age of 60 days. For the child's further stay, it is necessary to take out comprehensive private health insurance. The birth of a child must be reported within 8 days to the health insurance company with which the child's mother is insured. If the mother does not have public health insurance in the Czech Republic, the birth of the child is reported to the health insurance company with which the child's father is insured. If even the father is not covered by health insurance in the Czech Republic, the birth of a child must be reported at VZP. The assessment basis of the insurance premium for the entire period in which the child is a participant in the public health insurance system is twice the minimum wage for the relevant period, which corresponded to an insurance premium of 4 104 CZK in 2021.

The insurance premium is paid once for the entire period, at any time during it (Ministry of Health of the Czech Republic, 2021).

Refugees from Ukraine have recently become a particularly frequent case of entitlement to public health insurance. Citizens of Ukraine, seeking safety in the territory of the Czech Republic, obtain a residence permit in the territory of the Czech Republic, which is also valid in the territory of the EU (temporary protection visa) (eAgri, 2022). Furthermore, they were registered in the system of the public health insurance company, e.g. VZP. In addition, the state pays for this insurance for a period of 150 days from the granting of temporary protection. However, after employment in the Czech Republic during these 150 days or after it expires, this benefit is lost and the state no longer pays insurance for it (VZP, 2022).

4 Practical Part

In the practical part, it is necessary to define several researched topics:

- the first is the health insurance market for foreigners, with an emphasis on the costs of insurance companies to finance health care for foreigners,
- the second is an analysis of foreigners' opinions on health insurance in the Czech Republic, carried out on the basis of primary research.

4.1 Analysis of the Czech market of health insurance for foreigners

This chapter serves to fulfill one of the sub-goals of the thesis and is focused on the analysis of the Czech market of the health insurance for foreigners. At the beginning, a basic overview of the number of foreigners in the Czech Republic, broken down by type of stay and country of origin, is given. Due to the chosen focus of the work, the greatest attention is paid to the statistics of foreigners from third countries.

Furthermore, data on health care and health insurance provided to foreigners in the Czech Republic are collected and analyzed. Given that foreigners may be participants in commercial and also in the public health insurance (PHI) systems, it is appropriate to divide this analysis into two areas:

- health insurance for foreigners who are not eligible to participate in the PHI system. They are foreigners with long-term stays, with the exception of employees. Their health care in the Czech Republic is financed by Czech and foreign commercial insurances, cash (self-pay) and to a small extent it is sometimes financed by state authorities,
- health insurance for foreigners who are participants in the PHI system – they are mainly foreigners with permanent residence and employees.

Data for these two areas of analysis are also published in different statistical reports. For the first part of the analysis, these are reports of Health care for foreigners, regarding health care financed by commercial insurance companies or situations where foreigners act as self-payers. For the second part – CZCO Healthcare Accounts from which PHI data can be drawn. It should be noted that the breakdown of data by categories of foreigners is more

detailed in the first report. While the second statement concerns the entire Czech society, where foreigners-participants of PHI are understood as part of it.

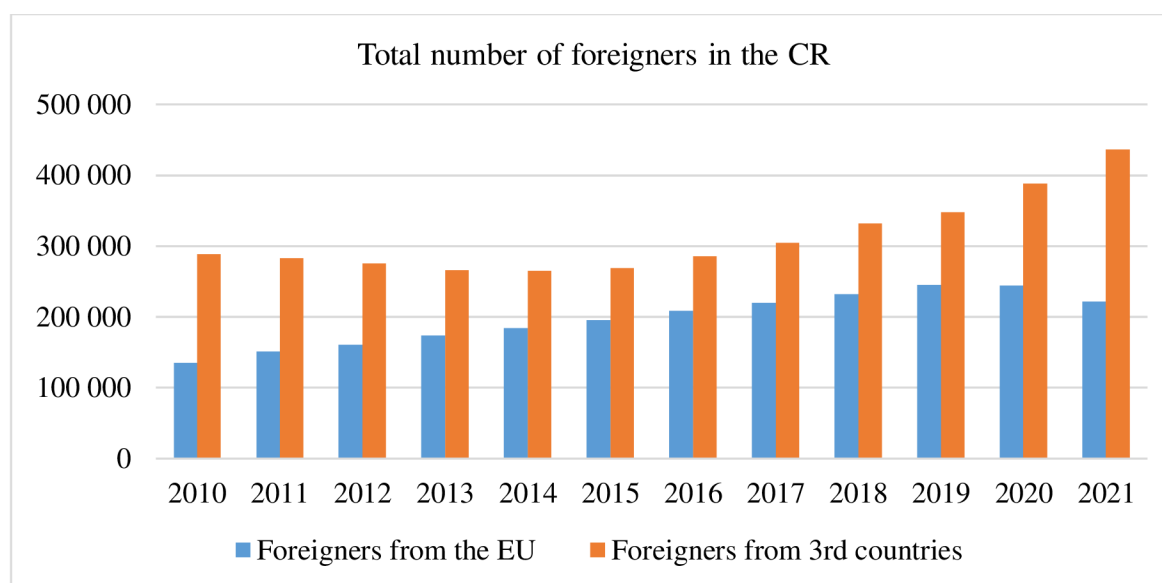
The examined period is 2010-2021. Some data (e.g. on Public Health Insurance) are available until 2020 at the latest.

4.1.1 Number of foreigners in the Czech Republic

Foreigners from the EU and third countries, living in the Czech Republic

Based on CZCO data, the development of the number of citizens of third countries and citizens of EU countries with temporary and permanent residence in the Czech Republic can be clearly observed (figure 2). The data do not include the number of foreigners with a valid visa in the Czech Republic.

Figure 2 Total number of foreigners in the Czech Republic, 2010-2021



Source: own processing based on the CZCO data (2022)

As of 31 December 2021, a total of more than 658 000 foreigners with permanent or temporary residence lived in the territory of the Czech Republic. If the number of foreigners also includes foreigners granted asylum or supplementary protection and a long-term visa, the indicator amounts to 660 849 persons. The share of foreigners in the total population of the Czech Republic reached 6,3 % in 2021.

About a third of foreigners with permanent and temporary residence in the Czech Republic (222 thousand people or 33,7 %) are EU citizens and almost 436,4 thousand people are citizens of non-EU countries (66,2%).

The representation of EU citizens among foreigners in the Czech Republic has been decreasing year-on-year in recent years (from 42,1 % in 2015 to 33,7 % in 2021). The withdrawal of Great Britain from the EU at the beginning of 2020 was apparently largely reflected in this development. On the contrary, the number of foreigners from third countries has been increasing considerably since 2015: in 2021, there were already 167,2 thousand foreigners from third countries on the territory of the Czech Republic, more than in 2015, and their share in the total number of foreigners increased from 57,9 % in 2015 to 66,3 % in 2021.

The most represented groups of foreigners traditionally include citizens of Ukraine (196,6 thousand people in 2021), Slovakia (114,6 thousand people), Vietnam (64,8 thousand people) and Russia (45,2 thousand people). Citizens of Ukraine primarily contribute to the growth of the number of foreigners from third countries: their number in 2014 was 104 156 persons, in 2021 – already 196 637 persons. This trend can be connected in time with the beginning of military actions in Donbass in 2014, the annexation of Crimea, as well as the simplification of the processes of obtaining employment cards for Ukrainians. Even the 2020 coronavirus year did not stop the growth of migration from third countries. In contrast, the number of foreigners from the EU residing on the territory of the CR decreased considerably in 2020-2021.

Foreigners with permanent and temporary residence in CR

Foreigners with permanent residence (a total of 320,5 thousand persons) made up a total of 48,5 % of all foreigners in the Czech Republic by the end of 2021. 50,3% of foreigners from third countries (a total of 220,5 thousand persons) had permanent residence. Table 3 shows data on the number of foreigners from the EU and third countries, divided by type of residence. There are also data for the three most numerous groups of foreigners from third countries – Ukraine, Vietnam and Russia.

Table 3 Foreigners in the CR – from the EU and 3rd countries, with temporary and permanent residence, 31.12.2021

| | Total | | permanent residence | | Long-term and other types of residence | |
|--------------------------------|---------|---------|---------------------|--------|--|--------|
| | persons | % | persons | % | persons | % |
| Number of foreigners | 660 849 | 100,0 % | 320 534 | 48,5 % | 340 315 | 51,5 % |
| From EU | 222 168 | 33,6 % | 100 016 | 45,0 % | 122 152 | 55,0 % |
| From the 3rd countries, incl.: | 438 681 | 66,4 % | 220 518 | 50,3 % | 218 163 | 49,7 % |
| Ukraine | 196 875 | 29,8 % | 90 687 | 46,1 % | 106 188 | 53,9 % |
| Vietnam | 64 851 | 9,8 % | 54 352 | 83,8 % | 10 499 | 16,2 % |
| Russia | 45 365 | 6,9 % | 23 198 | 51,1 % | 22 167 | 48,9 % |

Source: own processing based on the CZCO data (2022)

The statistics do not provide data on the number of foreigners who use public health insurance. They are registered as part of the national reports on public health insurance, which includes citizens of the Czech Republic and foreigners. Special statistics, however, show data on the use of health care by foreigners without public health insurance. Firstly, an analysis of these statistics is carried out. Furthermore, it is focused on the estimation of healthcare costs for foreigners with public health insurance.

4.1.2 Number of foreigners without public health insurance, utilizing health care in the Czech Republic

The following chart shows the development of the number of foreigners who received health care from Czech contractual health insurance, contractual insurance taken out abroad, in cash or health care paid for by state authorities (Ministry of Health, Ministry of the Interior, Ministry of Justice, regional authorities, etc.). At the same time, the number of foreigners also includes asylum seekers who are accommodated in asylum facilities and whose health care is paid for by the Ministry of the Interior. Conversely, foreigners with refugee status and an assigned visa should no longer be included in the statistics as participants in public health insurance. The chart does not track health care covered by public health insurance.

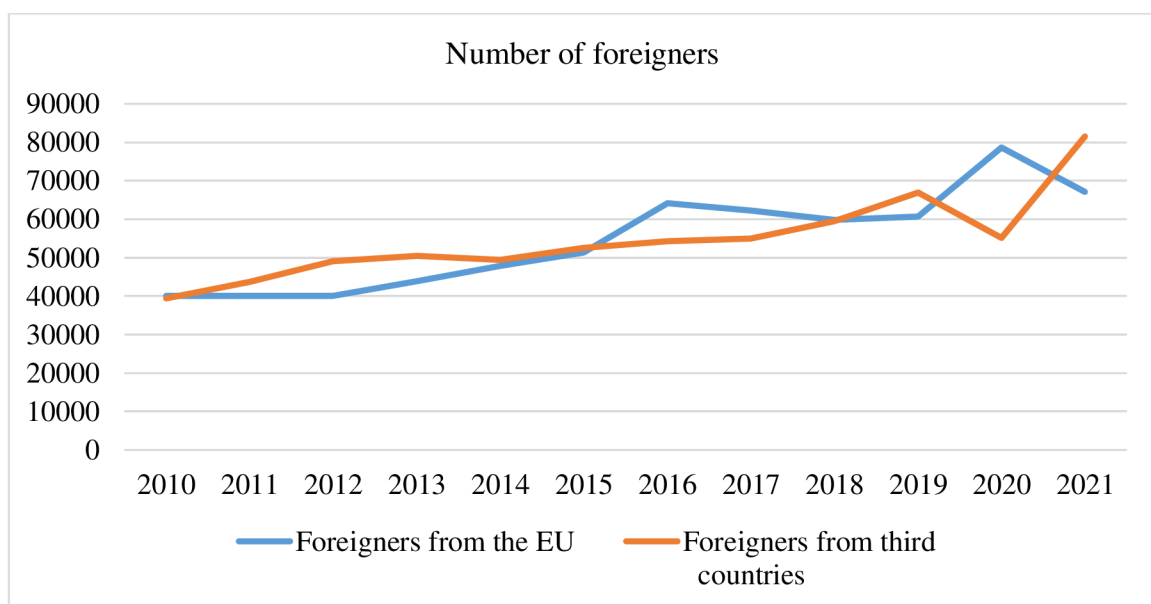
Health care financed from sources other than public health insurance is usually used by approximately half of all foreigners in the CR: 45,1 % of foreigners from the EU and 54,9 % of foreigners from third countries in 2021. In total, health care financed from other sources

than public health insurance, drawn by 148 527 foreigners in the Czech Republic in 2021, of which 54,9 % were foreigners from third countries.

It is obvious that the number of foreigners receiving health care increases every year and corresponds to the general trend of growth in the number of foreigners residing in the territory of the Czech Republic.

There is an interesting trend in 2020, when the number of foreigners from the EU in the Czech Republic decreased, but the number of foreigners from the EU utilizing health care, on the contrary, increased considerably. The opposite trend was observed in the group of foreigners from third countries. Their number increased in this coronavirus year, but the number of foreigners from 3rd countries using health care decreased, approximately to the level of 2017. In 2021, the trend reversed, which can be seen from the figure 3.

Figure 3 Number of foreigners in the CR, utilizing health care, financing from sources other than PHI *, 2010-2021



*Sources other than public health insurance are: contractual insurance in the CR or abroad, cash, state authorities.

Source: own processing based on the CZCO data (2022)

Table 4 shows detailed data on the number of foreigners from 3rd countries, utilizing health care in the CR, divided by age groups and sources of payments in 2021. The largest share of the total number of foreigners is made up of people of active age from 20 to 59 years. The number of children under the age of 14 is higher than, for example, the number of adolescents and youth aged 15-19 and older people aged 60+.

Health care, provided to foreigners from 3rd countries, not supported by public insurance, was mostly financed by cash (65,3 % of foreigners were self-payers when providing health care). Health care for less than a quarter of foreigners from 3rd countries was financed by commercial insurance companies in the Czech Republic (23,6 %). Financing by foreign contract insurance companies and state authorities make up less significant shares in the examined statement.

Table 4 Number of foreigners from 3rd countries in the CR, utilizing health care, financing from sources other than PHI*, - divided by age group and source of payments, 2021

| | Number of persons | % |
|-----------------------------------|-------------------|--------|
| Total number of foreigners | 81 507 | 100 % |
| Age groups: | | |
| 0-14 years | 7 712 | 9,5 % |
| 15-19 years | 4 984 | 6,1 % |
| 20-59 years | 63 956 | 78,5 % |
| 60+ years | 4 855 | 6,0 % |
| Paid from/by: | | |
| Insurance contract in the CR | 18 587 | 23,6 % |
| Insurance contract abroad | 7 126 | 9,1 % |
| Cash | 51 382 | 65,3 % |
| State authorities | 1 534 | 2,0 % |

* from 3rd countries, utilizing health care, financing from sources other than public health insurance.

Source: own processing based on the CZCO data (2022)

Patients from Slovakia (25 %), Ukraine (19 %), Russia (6 %), Vietnam (6 %) and Germany (5 %) were most often treated. At the end of the monitored period, receivables for unpaid health care for foreigners after the due date amounted to 65,8 million CZK (6 %) (CZSO, 2022).

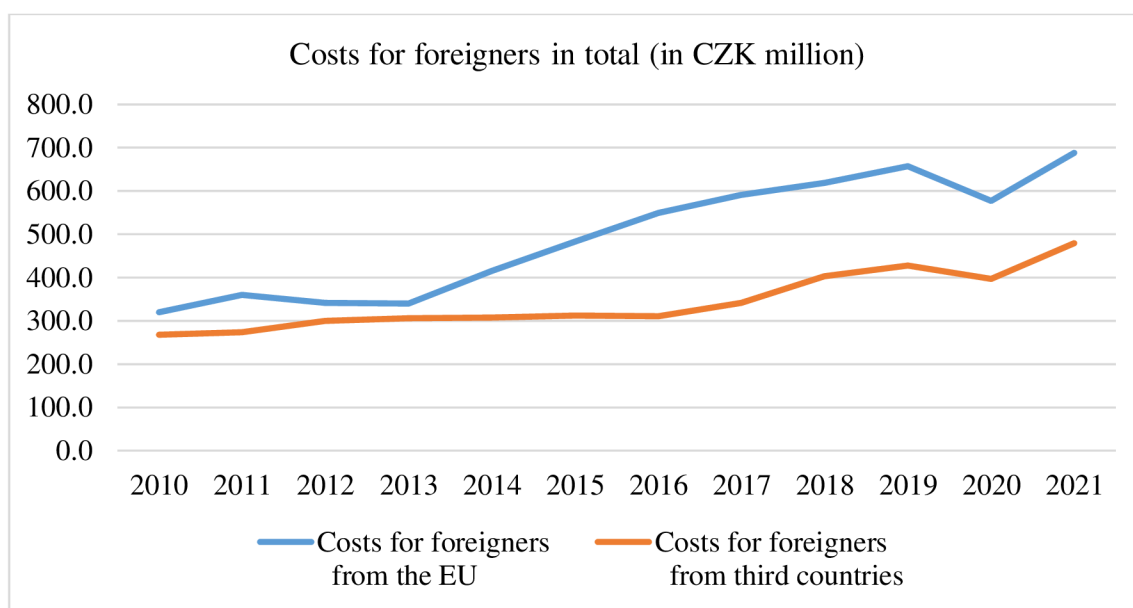
4.1.3 Costs of the health care, utilizing by foreigners without public health insurance in the Czech Republic

Health services were drawn from 201 inpatient care providers in the Czech Republic in 2021, with total costs in the amount of 1 167,4 million CZK. In 2021, the cost for foreigners from 3rd countries amounted to 479,3 million CZK (41,1 % share of costs for foreigners in total). It should be noted that the health care costs of foreigners from 3rd

countries have increased significantly in 2021 compared to the previous period. Compared to 2020, for example, they increased by 21 %. According to the providers, the increase also occurred due to the operation of the COVID-19 vaccination centers for foreigners as well (CZSO, 2022).

The development of costs for foreigners from EU and 3rd countries is illustrated by figure 4.

Figure 4 Health costs for foreigners in total, financing from sources other than PHI (in CZK million), 2010-2021



Source: own processing based on the CZCO data (2022)

The data, presented by the figure above, are presented in Table 5. Here the shares are calculated – how the costs of health care for foreigners from the EU and from 3rd countries share in the total costs of health care provided to foreigners and financed from sources other than public health insurance.

Table 5 Health costs for foreigners in total, financing from sources other than PHI (in CZK million), 2010-2021

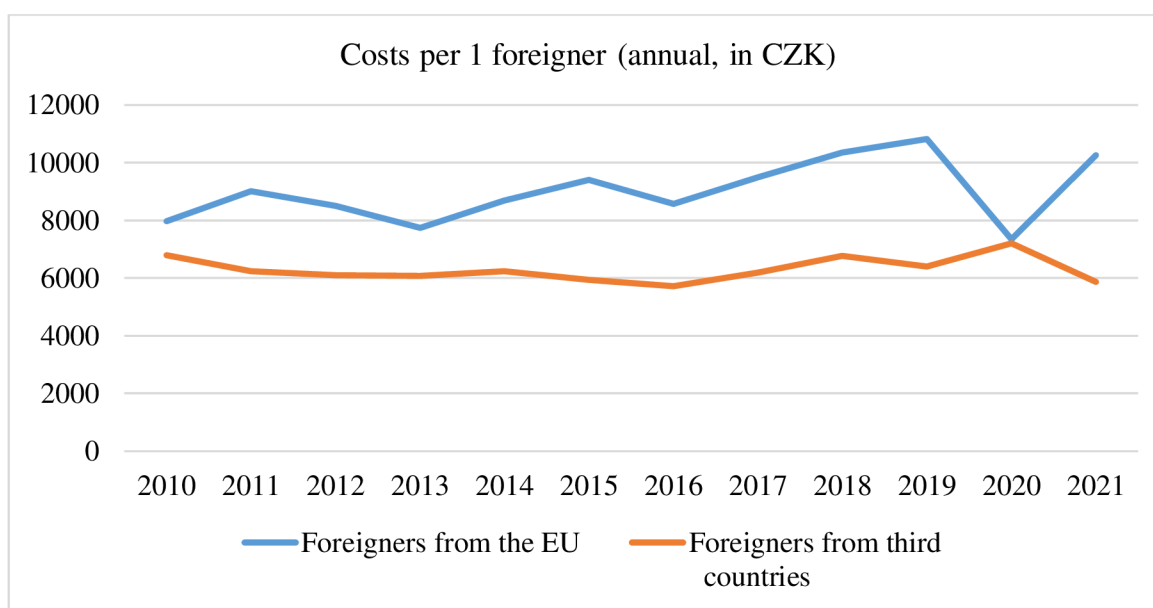
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|--------|
| Foreigners | 587,6 | 633,7 | 640,2 | 646,2 | 724,3 | 795,1 | 860,2 | 931,4 | 1021,1 | 1084,7 | 975,0 | 1167,4 |
| from EU | 319,8 | 360,6 | 340,9 | 340,2 | 416,1 | 483,7 | 549,6 | 590,4 | 618,3 | 656,6 | 577,6 | 688,1 |
| Share (%) | 54,4 | 56,9 | 53,3 | 52,7 | 57,4 | 60,8 | 63,9 | 63,4 | 60,6 | 60,5 | 59,2 | 58,9 |
| 3 rd countries | 267,8 | 273,0 | 299,3 | 306,0 | 308,3 | 311,4 | 310,6 | 341,0 | 402,8 | 428,1 | 397,4 | 479,3 |
| Share (%) | 45,6 | 43,1 | 46,7 | 47,3 | 42,6 | 39,2 | 36,1 | 36,6 | 39,4 | 39,5 | 40,8 | 41,1 |

Source: own processing based on the CZCO data (2022)

Based on the above statistical data, another indicator was calculated, that better interprets the situation with health care expenditures of foreigners. This is a recalculation of health costs per 1 foreigner (see figure 5, table 6).

Average healthcare costs for foreigners from the EU are considerably higher than for foreigners from 3rd countries. Only in 2020 the trend has changed and the average health care costs of foreigners from the EU has dropped almost to the level of the indicator for foreigners from 3rd countries. In 2021, however, the situation changed considerably, and the indicator returned to its pre-pandemic level for both groups of foreigners. In 2021, the average cost of health care for foreigners from third countries was 5 880 CZK, for foreigners from the EU – almost twice as much, 10 267 CZK. This means that the pressure on commercial insurance companies in the Czech Republic and abroad is greater when financing healthcare for EU citizens than for foreigners from 3rd countries.

Figure 5 Average health costs per 1 foreigner, financing from sources other than PHI (in CZK, annual), 2010-2021



Source: own processing based on the CZCO data (2022)

Table 6 Average health costs per 1 foreigner, financing from sources other than PHI (in CZK, annual), 2010-2021

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---------------------------|------|------|------|------|------|------|------|------|-------|-------|------|-------|
| from EU | 7968 | 9002 | 8505 | 7744 | 8696 | 9411 | 8576 | 9487 | 10345 | 10821 | 7345 | 10267 |
| 3 rd countries | 6792 | 6235 | 6099 | 6068 | 6248 | 5933 | 5719 | 6194 | 6776 | 6396 | 7205 | 5880 |

Source: own processing based on the CZCO data (2022)

The table below presents data about the costs, financing by different sources (except public health insurance), connected with the health care, provided to foreigners from 3rd countries in 2021. The statistical data are divided from the point of view of the country of origin (foreigners from all 3rd countries and from the main countries – Ukraine, Vietnam and other post-USSR countries). Data are also divided by the age group of the health care recipients and the type of financial source.

Table 7 Health costs for foreigners from 3rd countries in the CR, financing from sources other than PHI, - divided by age group and source of payments, 2021

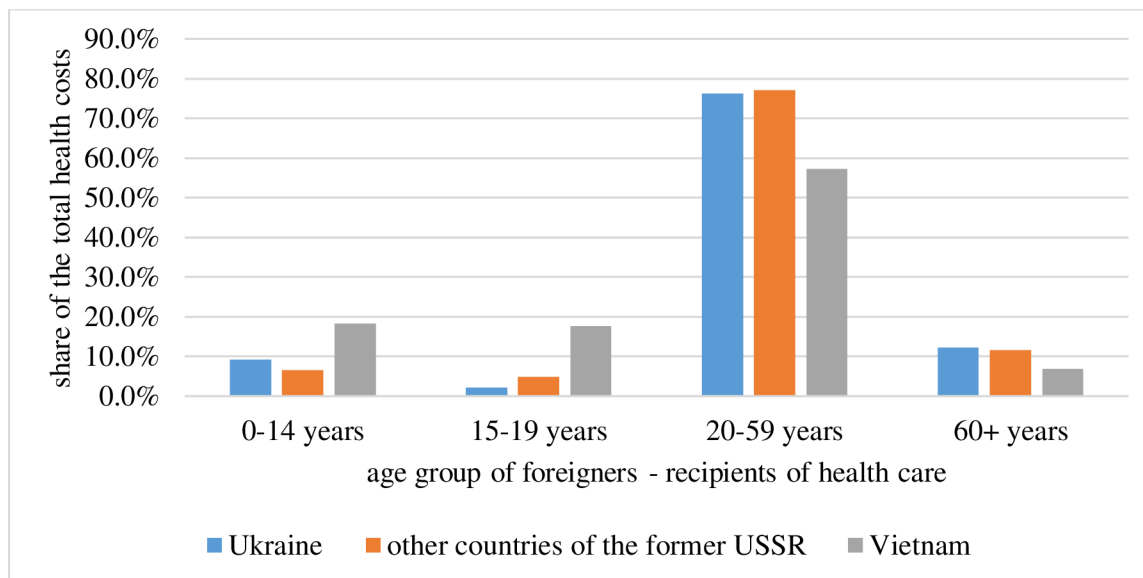
| | To foreigners from 3 rd countries (total) | | From Ukraine | | From other countries of the former USSR | | From Vietnam | |
|------------------------------------|--|--------|--------------|--------|---|--------|--------------|--------|
| | CZK thous. | % | CZK thous. | % | CZK thous. | % | CZK thous. | % |
| Total costs of health care* | 479 287 | 100 % | 185 184 | 100 % | 64 762 | 100 % | 54 258 | 100 % |
| Provided to age groups: | | | | | | | | |
| 0-14 years | 49 065 | 10,2 % | 17 203 | 9,3 % | 4 250 | 6,6 % | 9 941 | 18,3 % |
| 15-19 years | 20 110 | 4,2 % | 4 159 | 2,2 % | 3 181 | 4,9 % | 9 526 | 17,6 % |
| 20-59 years | 333 492 | 69,6 % | 141 013 | 76,1 % | 49 871 | 77,0 % | 31 085 | 57,3 % |
| 60+ years | 76 620 | 16,0 % | 22 809 | 12,3 % | 7 460 | 11,5 % | 3 706 | 6,8 % |
| Paid from/by: | | | | | | | | |
| Insurance contract in the CR | 154 817 | 32,3 % | 59 689 | 32,2 % | 18 941 | 29,2 % | 34 606 | 63,8 % |
| Insurance contract abroad | 68 759 | 14,3 % | 8 035 | 4,3 % | 4 023 | 6,2 % | 3 439 | 6,3 % |
| Cash | 179 981 | 37,6 % | 75 249 | 40,6 % | 32 030 | 49,5 % | 9 461 | 17,4 % |
| State authorities | 7 407 | 1,5 % | 1 185 | 0,6 % | 1 123 | 1,7 % | 491 | 0,9 % |
| Unpaid | 68 324 | 14,3 % | 41 026 | 22,2 % | 8 644 | 13,3 % | 6 260 | 11,5 % |

*provided to foreigners from 3rd countries, financing from sources other than public health insurance.

Source: own processing based on the CZCO data (2022)

It is clear that the structure of the distribution of costs according to the age group of the recipients hardly differs among foreigners from different countries. The largest part of the costs is associated with the financing of health care, provided to the people of age of 20-59 years. A slightly larger share of costs is spent on children and youth from Vietnam, at the expense of financing health care for people of the active age. The figure 6 allows you to compare the cost structure for health care for different age groups.

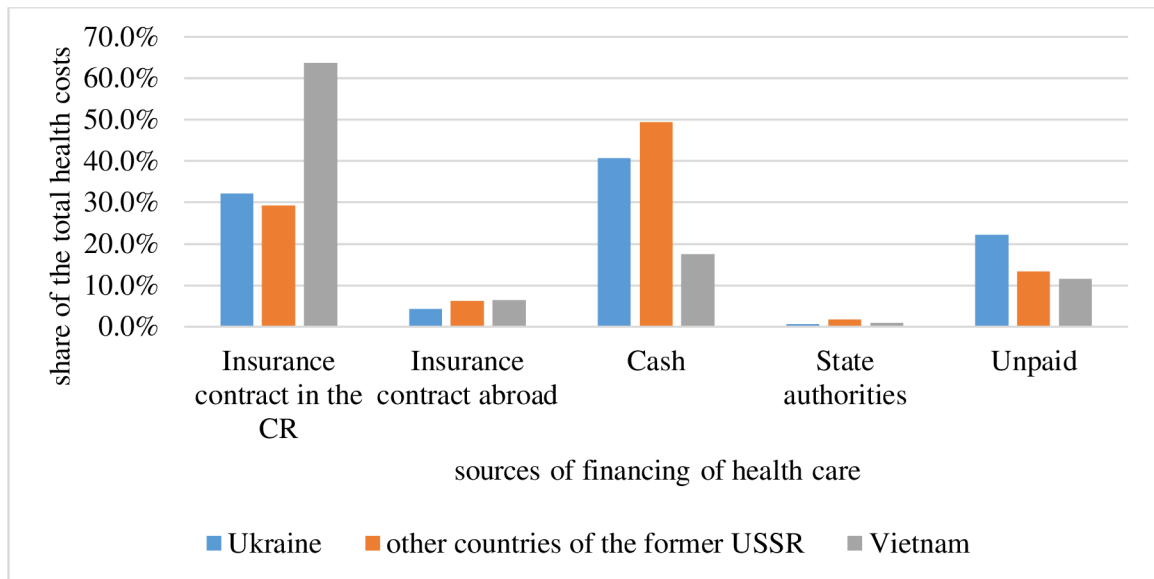
Figure 6 Health costs for foreigners from main 3rd countries, financing from sources other than PHI, - divided by age group, 2021



Source: own processing based on the CZCO data (2022)

The figure 7 shows data on the share of various funding sources in the total funding of health care, provided to foreigners from main 3rd countries. You can see the difference in the importance of the Czech insurance contract for financing health care: for foreigners from the countries of the former Soviet Union, including Ukraine, it is a less important source than for Vietnamese. Conversely, cash is used considerably more by foreigners from post-USSR countries than by Vietnamese. The share of unreimbursed health care costs is the highest among Ukrainians – 22,2 % of all health care costs are unreimbursed. For foreigners from other post-USSR countries, this share is lower and amounted to 13,3 % in 2021, for Vietnamese it is 11,5 %.

Figure 7 Health costs for foreigners from main 3rd countries, financing from sources other than PHI, - divided by the source of financing, 2021



Source: own processing based on the CZCO data (2022)

The fact that most foreigners from the countries of the former USSR are self-payers is a bad trend in terms of their social and economic status. There is also a lack of cooperation between the Czech health system and insurance contracts from abroad – specifically with countries such as Ukraine, Russia, Belarus. It is understandable that cooperation with insurance of other EU countries is much easier for the Czech Republic, but some steps to deepen this cooperation could increase the availability of health care in the Czech Republic for foreigners from these countries.

For Ukrainians, the amount of outstanding liabilities arising from the provision of health care is very significant – up to 41 million CZK in 2021. It is more than the amount of unpaid costs of all the foreigners from EU countries – 33,98 million CZK in 2021. In terms of one foreigner this amount is significantly lower than for Ukrainians. According to their own calculations, the average amount of unpaid costs by the 1 Ukrainian debtor was 23 178 CZK, by the 1 debtor from EU country was 11 732 CZK. However, the average amount of debt of a Vietnamese is even higher than that of Ukrainians and amounts to 28 716 CZK. The calculation results are summarized in the table 8.

Table 8 Calculation of unpaid health costs per 1 foreigner, 2021

| | From 3rd countries (total) | from Ukraine | from other countries of the former USSR | from Vietnam | from EU |
|---|-----------------------------------|---------------|---|---------------|---------------|
| Number of debtors – foreigners* | 6 633 | 1 770 | 573 | 218 | 2 896 |
| unpaid health costs (CZK thousand) | 102 301 | 41 026 | 8 644 | 6 260 | 33 977 |
| unpaid health costs (CZK per 1 person) | 15 423 | 23 179 | 15 086 | 28 716 | 11 732 |

* utilizing health care in CR, that should be financing by sources other than public insurance, esp. by foreigners' cash.

Source: own processing based on the CZCO data (2022)

4.1.4 Number of foreigners with public health insurance and cost of the health care, financing by the public insurance system in the Czech Republic

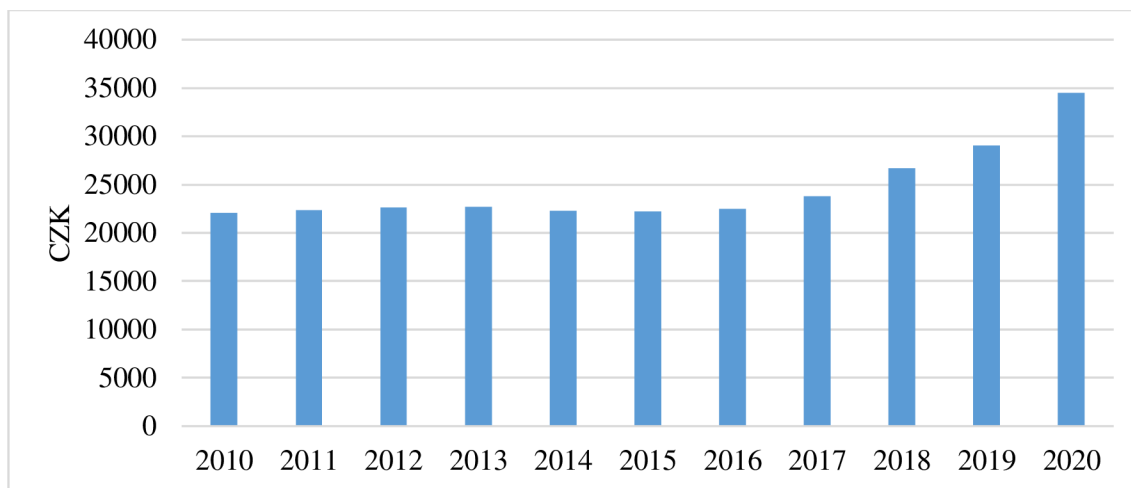
Data on expenditure from public sources issued on health care for foreigners is not available, only data on total expenditure financed from public sources is available. These total expenses also include expenses for other entities that participate in public health insurance, for the most part they are citizens of the Czech Republic. The CZSO publishes the Results of the Health Account, where it lists the total expenditure of public insurance companies on health care and this expenditure per 1 person in the Czech Republic. The development of health insurance companies' expenses per person is shown in the graph below. Between 2017-2019, spending gradually increased, and the sharp increase in 2020 can be explained by two reasons.

Firstly, it was due to the impact of the covid-19 pandemic and the increase in spending on testing (PCR or antigen tests), vaccinations and inpatient medical care, medicines and medical devices, especially protective equipment.

Secondly, the increase in 2020 was caused by changes in the methodology for calculating the indicator. The data for the period 2010-2019 are taken from the Report Results of the Czech Republic's Health Account 2010-2019, the data for 2020 are taken from the 2017-2020 Report, in which the expenditure of health insurance companies was revised and data sources changed. Due to these changes, the data from the revised report (in the chart for 2020) are not completely comparable to the data in the previously published publication.

In 2020, the expenses of health insurance companies amounted to 34 517 CZK on average, which is clearly much more than the amount spent on health care by foreigners, which is not covered by public health insurance companies – 7 205 CZK in 2020 for foreigners from 3rd countries (see chapter 4.1.3).

Figure 8 Costs of PHI on health care per 1 person in the Czech Republic (CZK), 2010-2020



Source: own processing based on the CZCO data (2021, 2022)

In order to calculate the approximate total expenditure of health insurance companies on foreigners, the above indicator must be multiplied by the number of foreigners who are participants in public health insurance. They are mainly foreigners with permanent residence and employees.

The number of foreigners with permanent residence is determined from CZCO statistics. The number of foreign employees from the data available in the CZCO public database are found out. Then the number of foreigners who do not need a work permit was subtracted from the total number of foreign employees. According to §98 of the Employment Act, foreigners who have permanent residence or have been granted asylum etc. do not need a permit. These persons are already included in the public health insurance system, so they were excluded so as not to count them twice. Unfortunately, CZCO does not break down the data on the number of foreigners who do not need a work permit according to their citizenship. Therefore, it is not possible to calculate the costs of PHI specifically for foreigners from 3rd countries, but only for all foreigners in the Czech Republic.

The calculation is made for the two most recent years – 2019-2020, for which data on PHI costs per 1 person are available.

The calculation shows that the total costs of PHI for foreigners amounted to 27 897,6 million CZK in 2020 and 22 653,1 million CZK in 2019. Year-on-year increase amounts to 23,2 %, which is quite a huge change. However, it should be noted here again that the PHI cost indicator per person in 2020 is based on a revised methodology of CZCO and is also affected by the growth of costs during the covid-19 pandemic.

Table 9 Calculation of public health insurance costs for foreigners in the Czech Republic, 2019-2020

| | 2019 | 2020 |
|---|----------------------------|----------------------------|
| Number of foreign participations of PHI = A + B | 780 255 persons | 808 227 persons |
| A. Foreigners with permanent residences | 299 453 persons | 308 379 persons |
| B. Foreign employees = B1 – B2 | 480 802 persons | 499 848 persons |
| <i>B1. Foreigners registered at labor offices in total</i> | <i>621 870 persons</i> | <i>644 164 persons</i> |
| <i>B2. Foreigners who do not need a work permit</i> | <i>141 068 persons</i> | <i>144 316 persons</i> |
| Costs of PHI per 1 person | 29 033 CZK | 34 517 CZK |
| Costs of PHI for health care, provided to foreigners = Number of foreign participations of PHI * Costs of PHI per 1 person | 22 653,143 mln. CZK | 27 897,571 mln. CZK |

Source: own processing based on the CZCO data (2022)

Furthermore, it is examined what share the costs of foreigners create in the total costs of PHI in the Czech Republic. For this purpose, data on the total costs of PHI in 2019 and 2020 are drawn. According to CZCO, they amounted to 317 404,6 mln. CZK in 2019 and 369 398,2 mln. CZK in 2020. Share of costs on foreigners is 7,1 % in 2019 and 7,6 % in 2020. It is also clear from the calculation of the year-on-year change in cost indicators that the costs of health care to foreigners increased at a higher rate than the total costs (23,2 % compared to 16,4 %). It corresponds to the trend of growth in the costs of health care provided to foreigners, which are non-participants of PHI (participants of commercial insurance companies, self-payers, etc.) in 2021, detected in the previous subchapter of this thesis (see subsection 4.1.3).

Table 10 Share of PHI costs on health care provided to foreigners in total PHI costs on health care in CR, 2019-2020

| | 2019 | 2020 | Change 2020/2019 |
|---|-----------|-----------|------------------|
| PHI costs on health care, provided to foreigners in CR, mln. CZK | 22 653,14 | 27 897,57 | +23,2 % |
| Total PHI costs on health care in CR, mln. CZK | 317 404,6 | 369 398,2 | +16,4 % |
| Share of costs on health care for foreigners in total PHI costs, % | 7,1 % | 7,6 % | |

Source: own processing based on the CZCO data (2022)

4.2 Own survey – foreigners’ opinions on the topic of health insurances

The survey was carried out in the form of a questionnaire in which foreigners from 3rd countries participated. They were mainly citizens of countries of the former USSR – Ukraine, Russia, Kazakhstan, Belarus, Uzbekistan etc. Participations have been living in the Czech republic for more than a year and have long-term or permanent residences. In connection with the goal of the thesis, the survey is not intended for citizens of Ukraine with a visa of patience (viza strpění) / for the purpose of temporary protection (za účelem dočasné ochrany), as well as to foreigners who have acquired Czech citizenship. The total number of the survey participations is 120 persons. The questionnaire form, that was used in the survey, is presented in the appendix A.

Approximately the voluntary share of men and women in the survey was maintained (45 % - men, 55 % - women). The majority of respondents are young and middle-aged people – from 21 to 39 years old. The surveyed respondents are mainly citizens of the Russian Federation (42 %), Ukraine (23 %) and Kazakhstan (17 %). A smaller representation is created by citizens of Belarus and other 3rd countries. The table 11 presents the structure of respondents, divided according to basic demographic criteria. Appendix B contains graphs illustrating the structure of the respondents.

Almost all respondents live in Prague (83 %). The duration of living in the Czech Republic is rather long for the majority of respondents – from 3 to 8 years. The main purpose of their stay in the CR are work, study or permanents residence (see table 12).

Table 11 Demographic characteristics of the respondents

| Gender: | number | % | Citizenship: | number | % |
|--------------------|---------------|----------|------------------------------------|---------------|--------------|
| Men | 54 | 45 % | Ukraine | 28 | 23 % |
| Women | 66 | 55 % | Russian Federation | 50 | 42 % |
| Age: | number | % | Republic of Kazakhstan | 20 | 17 % |
| less then 21 years | 7 | 6 % | The Republic of Belarus | 12 | 10 % |
| 21-26 years | 32 | 27 % | Other country | 10 | 8 % |
| 27-32 years | 35 | 29 % | Total number of respondents | 120 | 100 % |
| 33-39 years | 20 | 17 % | | | |
| 40-49 years | 11 | 9 % | | | |
| 50-59 years | 7 | 6 % | | | |
| 60-... years | 8 | 7 % | | | |

Source: own processing

Table 12 Characteristics of the respondents' residences in the Czech republic

| Period of residence in the Czech Republic | number | % |
|--|---------------|--------------|
| 1-2 years | 7 | 6 % |
| 3-4 years | 18 | 15 % |
| 5-6 years | 42 | 35 % |
| 7-8 years old | 31 | 26 % |
| Over 8 years | 22 | 18 % |
| City of the current residence in the Czech Republic | | |
| Prague | 99 | 83 % |
| Brno | 7 | 6 % |
| Pilsen | 4 | 3 % |
| Another city | 10 | 8 % |
| Type of the residence permit | | |
| Long-term stay (dlouhodobý pobyt) | 67 | 56 % |
| Permanent residence (trvalý pobyt) | 53 | 44 % |
| Current purpose of the stay in the Czech Republic | | |
| Education | 28 | 23 % |
| Work (employment) | 37 | 31 % |
| Business (company / own-account worker) | 9 | 8 % |
| Family reunion | 11 | 9 % |
| Permanent residence | 35 | 29 % |
| Total number of respondents | 120 | 100 % |

Source: own processing

4.2.1 Questions about the health insurance in the Czech Republic

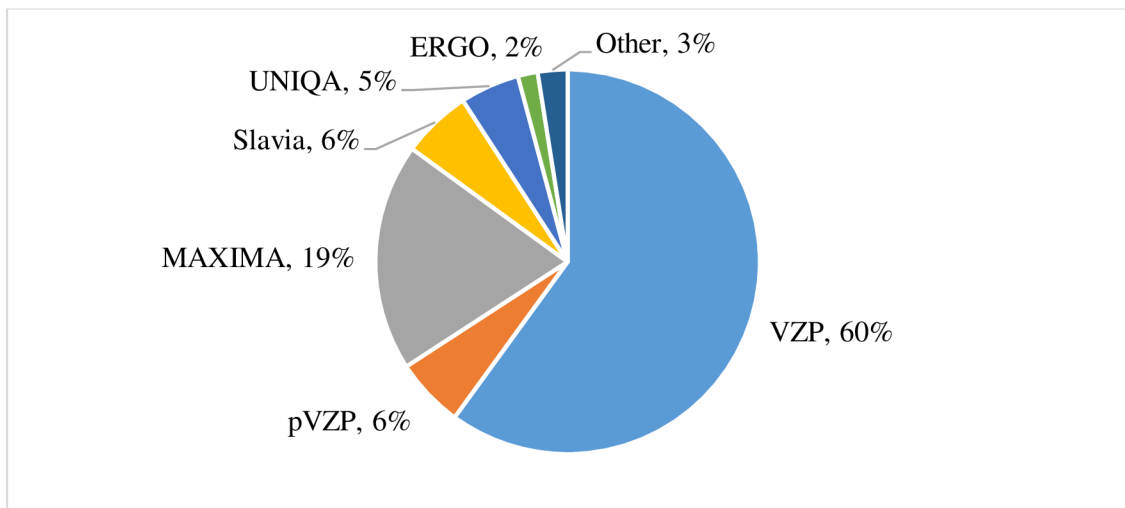
Almost half of the respondents (40 %) have commercial health insurance – most often they have MAXIMA (19 %). 60 % of respondents are PHI participants and are insured by the most popular public health insurance company in the Czech Republic – VZP (see table 13, figure 9). Such a large share of respondents, PHI participants, is related to the fact that 29 % of respondents have permanent residence and 31 % are employed.

Table 13 Health insurances of respondents

| | N | % |
|-----------|-----|-------|
| VZP (PHI) | 72 | 60 % |
| pVZP | 7 | 6 % |
| MAXIMA | 23 | 19 % |
| Slavia | 7 | 6 % |
| UNIQA | 6 | 5 % |
| ERGO | 2 | 2 % |
| Other | 3 | 3 % |
| Total | 120 | 100 % |

Source: own processing

Figure 9 Health insurances of respondents



Source: own processing

Another question discovers respondents' opinions on how much of the range of health services their insurance covers and whether they think it is sufficient. The results using the Likert scale assessment are shown in the table. The answers are also divided according to

the type of respondents' insurances – VZP or commercial insurance companies (MAXIMA, UNIQA, Slavia etc.).

In the last row of the table, the average answer is calculated – for all answers it is 53,5 %, which corresponds to the average satisfaction with the range of health care, covered by respondents' HI. Considerable differences are found in the evaluations of VZP and commercial HI holders – for VZP, satisfaction is considerably higher (66,3 %), for commercial HI holders – lower, which rather suggests dissatisfaction (34,4 %).

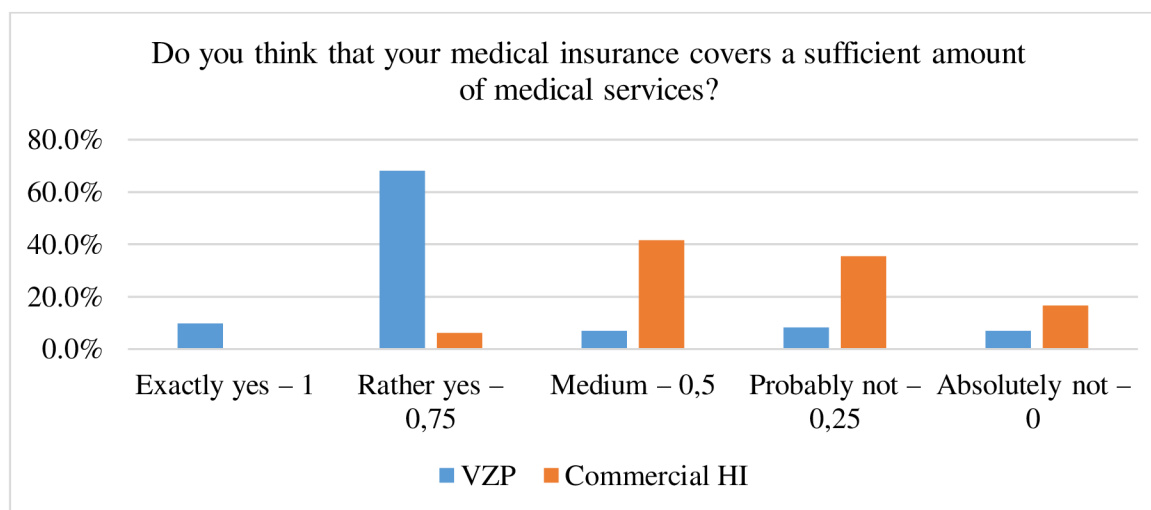
Table 14 How does the respondents' medical insurance cover the health care

| Do you think that your medical insurance covers a sufficient amount of medical services? | Total | | PHI | | Commercial HI | |
|--|--------------|---------------|--------------|---------------|---------------|---------------|
| | N | % | N | % | N | % |
| Exactly yes – 1 | 7 | 5,8 % | 7 | 9,7 % | 0 | 0,0 % |
| Rather yes – 0,75 | 52 | 43,3 % | 49 | 68,1 % | 3 | 6,3 % |
| Medium – 0,5 | 25 | 20,8 % | 5 | 6,9 % | 20 | 41,7 % |
| Probably not – 0,25 | 23 | 19,2 % | 6 | 8,3 % | 17 | 35,4 % |
| Absolutely not – 0 | 13 | 10,8 % | 5 | 6,9 % | 8 | 16,7 % |
| Total | 120 | 100 % | 72 | 100 % | 48 | 100 % |
| Average answer | 0,535 | 53,5 % | 0,663 | 66,3 % | 0,344 | 34,4 % |

Source: own processing

It is noticeable that commercial insured persons almost did not give positive evaluations of the range of health services covered by their HI – only 6,3 % said “rather yes”. For VZP insured persons, the proportion of positive answers is greater – see figure below.

Figure 10 How does the respondents' medical insurance cover the health care – opinions of persons insured by VZP and by commercial insurance companies



Source: own processing

For the next question, respondents evaluated the quality of communication with the insurance company. There was an option to indicate the absence of experience with communication with the HI company and not to indicate the rating. The answers were again given using a Likert scale (see table below).

The average satisfaction with communication is almost the same as for the evaluation of the range of reimbursed services – average answer is 54,4 %. And again, there is a noticeable difference in the ratings of VZP and commercial insurance companies (64,2 % versus 39,6 %).

It is interesting that the evaluation of communication is lower than the evaluation of satisfaction with the range of financed services among VZP insured persons. On the contrary, for clients of commercial insurance companies, the average satisfaction with communication is higher than with the range of services, although it is still below average.

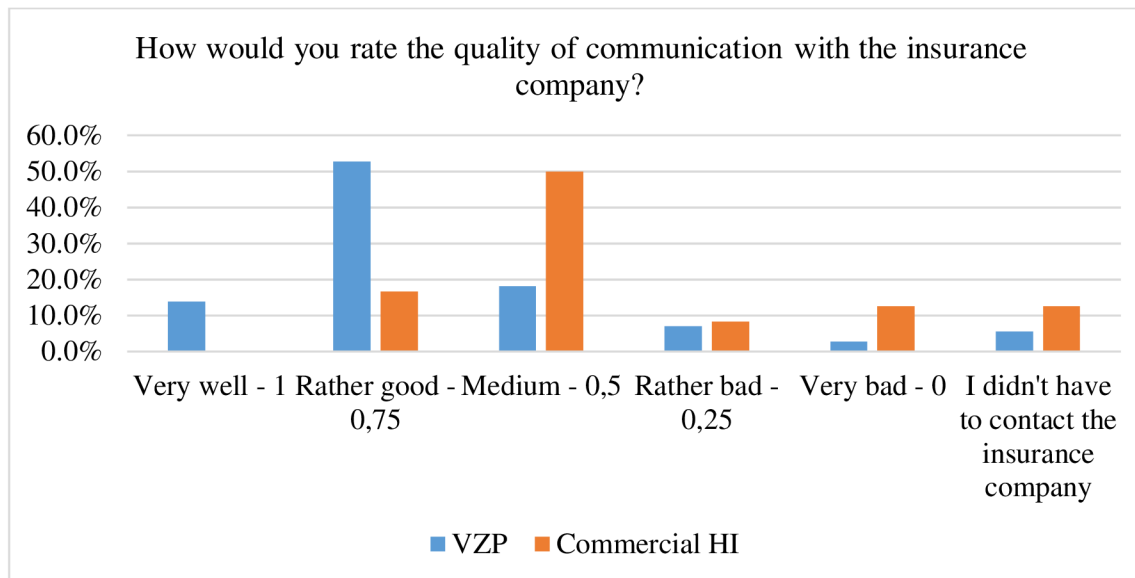
Table 15 How do respondents rate the quality of communication with their insurance companies

| How would you rate the quality of communication with the insurance company? | Total | | PHI | | Commercial HI | |
|---|--------------|---------------|--------------|---------------|---------------|---------------|
| | N | % | N | % | N | % |
| Very well - 1 | 10 | 8,3 % | 10 | 13,9 % | 0 | 0,0 % |
| rather good - 0,75 | 46 | 38,3 % | 38 | 52,8 % | 8 | 16,7 % |
| Medium - 0,5 | 37 | 30,8 % | 13 | 18,1 % | 24 | 50,0 % |
| rather bad - 0,25 | 9 | 7,5 % | 5 | 6,9 % | 4 | 8,3 % |
| Very bad - 0 | 8 | 6,7 % | 2 | 2,8 % | 6 | 12,5 % |
| I didn't have to contact the insurance company | 10 | 8,3 % | 4 | 5,6 % | 6 | 12,5 % |
| Total | 120 | 100 % | 72 | 100 % | 48 | 100 % |
| Average answer | 0,544 | 54,4 % | 0,642 | 64,2 % | 0,396 | 39,6 % |

Source: own processing

A comparison of the opinions of VZP holders and commercial insurance holders on the quality of HI communication is carried out by figure below. Among VZP holders, the most common answer was “rather good”, among commercial policyholders – “medium”.

Figure 11 How do respondents rate the quality of communication with their insurance companies – opinions of persons insured by VZP and by commercial insurance companies



Source: own processing

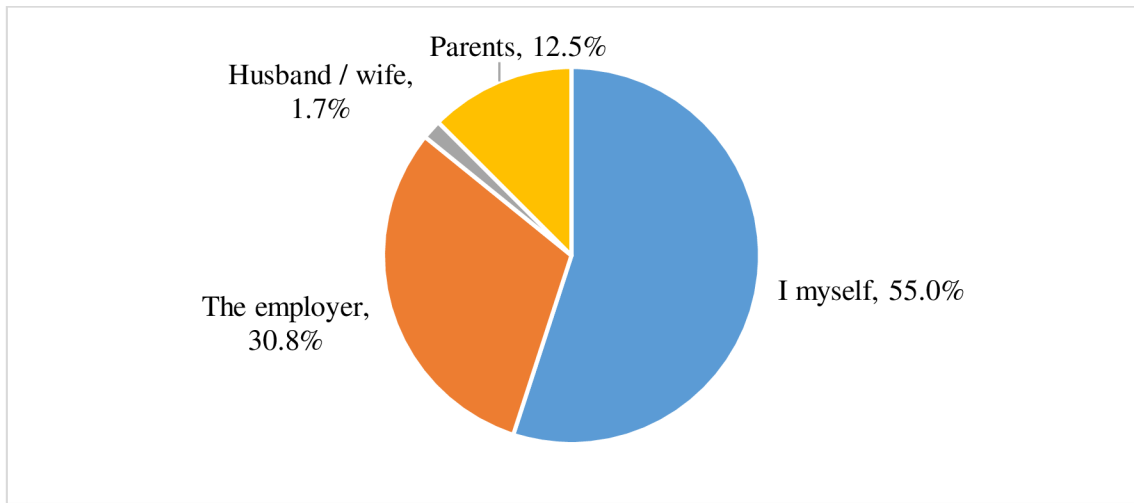
Furthermore, it was found that half of the respondents pay for their insurance themselves – they are mainly commercial insured persons and partly also owners of permanent residence, entrepreneurs. For a small part of the respondents, their parents or partners cover the cost of insurance premiums.

Table 16 Who pays for the health insurance of respondents

| | N | % |
|----------------|-----|--------|
| I myself | 66 | 55,0 % |
| The employer | 37 | 30,8 % |
| Husband / wife | 2 | 1,7 % |
| Parents | 15 | 12,5 % |
| Total | 120 | 100 % |

Source: own processing

Figure 12 Who pays for the health insurance of respondents



Source: own processing

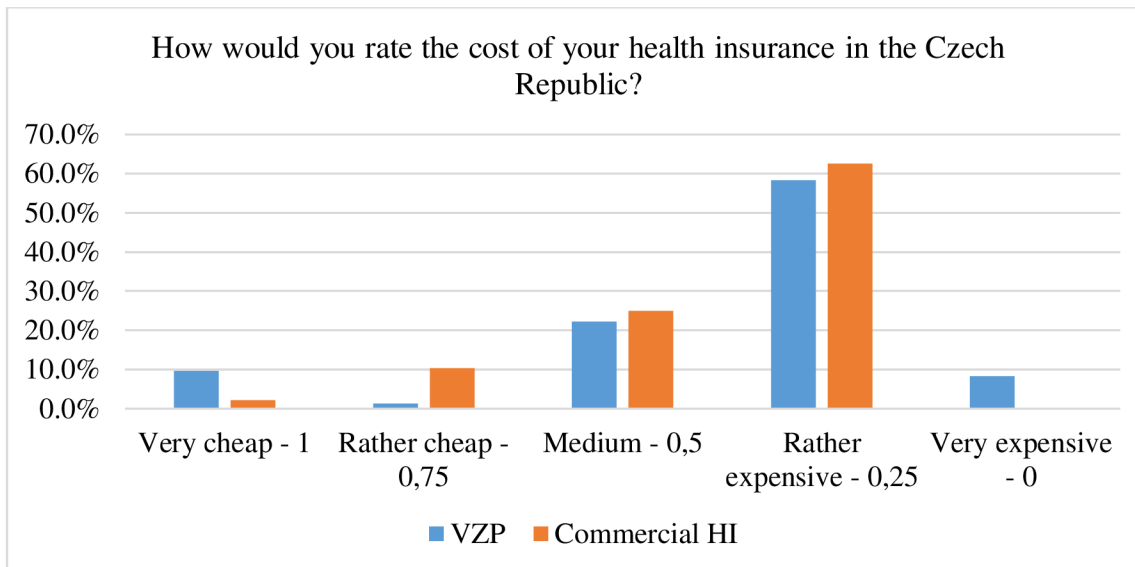
Perceived price is an important indicator that is monitored especially by competing commercial health insurance companies. Surprisingly, almost no differences were found in the evaluations of the price of VZP and commercial insurances. And this despite the fact that the VZP health insurance is covered by the employers for a large part of the respondents and they do not directly encounter this cost (such as self-employed persons or commercial insured persons). The average rating is 36,5 % for VZP holders and 38,0 % for commercial holders. The answer “rather expensive” was given most often – It was given by 58,3 % of VZP insured persons and 62,5 % of commercial insured persons. A general conclusion can be drawn that health insurance is rather a significant cost for interviewed foreigners in the Czech Republic.

Table 17 How do respondents rate the cost of their health insurance in the Czech Republic

| How would you rate the cost of your health insurance in the Czech Republic? | Total | | PHI | | Commercial HI | |
|---|--------------|---------------|--------------|---------------|---------------|---------------|
| | N | % | N | % | N | % |
| Very cheap - 1 | 8 | 6,7 % | 7 | 9,7 % | 1 | 2,1 % |
| Rather cheap - 0,75 | 6 | 5,0 % | 1 | 1,4 % | 5 | 10,4 % |
| Medium - 0,5 | 28 | 23,3 % | 16 | 22,2 % | 12 | 25,0 % |
| Rather expensive - 0,25 | 72 | 60,0 % | 42 | 58,3 % | 30 | 62,5 % |
| Very expensive - 0 | 6 | 5,0 % | 6 | 8,3 % | 0 | 0,0 % |
| Total | 120 | 100 % | 72 | 100 % | 48 | 100 % |
| Average answer | 0,371 | 37,1 % | 0,365 | 36,5 % | 0,380 | 38,0 % |

Source: own processing

Figure 13 How do respondents rate the cost of their health insurance in the Czech Republic



Source: own processing

112 respondents (93,3 %) reported that they had no debts to health insurance companies or unpaid invoices for medical services. 8 respondents (6,7 %) stated that they did not want to provide this information. No respondent mentioned having debts to health service providers or insurance companies.

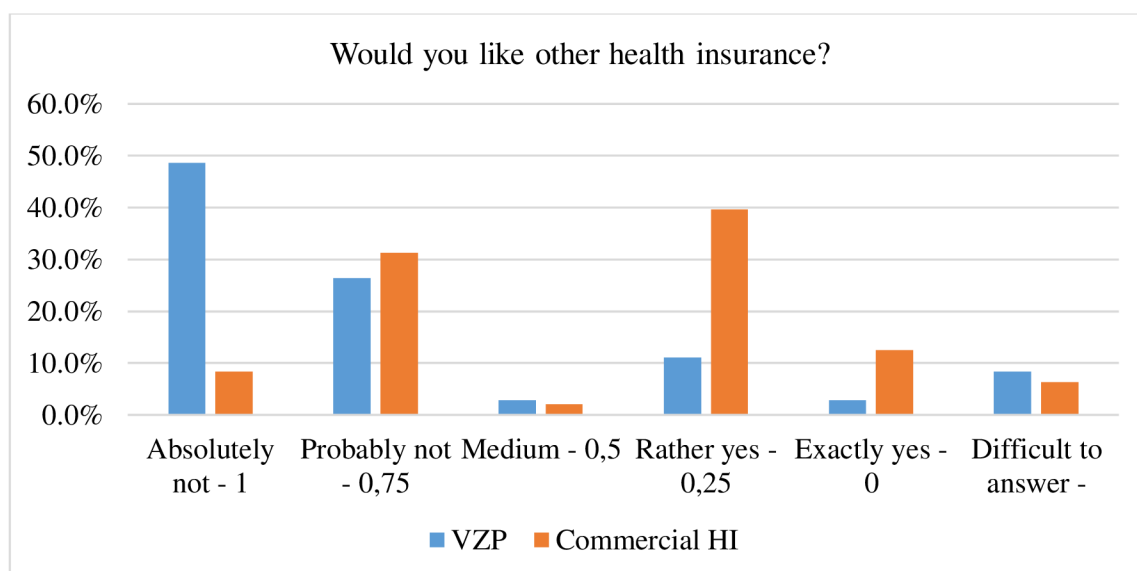
Despite the fact that respondents are not very satisfied with the price of insurance and only moderately satisfied with the range of services covered by the insurance and communication with insurance companies, few of them would like to have other insurance. Exactly yes or rather yes was stated by approximately 11 % of VZP insured persons and slightly more – 19 % of commercial insured persons. An overview of all answers is given in the table below. It can also be linked to the fact that commercial insureds have at least some offers to choose from (although from August 2021 this option is limited by the need to be commercially insured with VZP in the case of a long-term stay in the Czech Republic).

Table 18 Whether the respondents would like to have other health insurance

| Would you like other health insurance? | Total | | PHI | | Commercial HI | |
|--|--------------|---------------|--------------|---------------|---------------|---------------|
| | N | % | N | % | N | % |
| Absolutely not - 1 | 39 | 32,5 % | 35 | 48,6 % | 4 | 8,3 % |
| Probably not - 0,75 | 34 | 28,3 % | 19 | 26,4 % | 15 | 31,3 % |
| Medium - 0,5 | 3 | 2,5 % | 2 | 2,8 % | 1 | 2,1 % |
| Rather yes - 0,25 | 27 | 22,5 % | 8 | 11,1 % | 19 | 39,6 % |
| Exactly yes - 0 | 8 | 6,7 % | 2 | 2,8 % | 6 | 12,5 % |
| Difficult to answer - | 9 | 7,5 % | 6 | 8,3 % | 3 | 6,3 % |
| Total | 120 | 100 % | 72 | 100 % | 48 | 100 % |
| Average answer | 0,655 | 65,5 % | 0,792 | 79,2 % | 0,456 | 45,6 % |

Source: own processing

Figure 14 Whether the respondents would like to have other health insurance



Source: own processing

At the end of this part of questionnaire, the respondents were asked to state in their own words the advantages and disadvantages of health insurance in the Czech Republic. The question was optional and only 15 answers appeared (12,5 % of respondents). The main characteristics of these respondents and translation of their answers are listed below.

1. Respondent – woman, Russian, 25 years old, live in Czech Republic for 7-8 years, long-term residence, student, currently has MAXIMA insurance:

- “Minus: partial compensation of expenses for health services. Plus: the price is lower than other insurances offer.”
2. Respondent – man, Russia, 24 years old, live in Czech Republic for 5-6 years, long-term residence, student, currently has UNIQA insurance:
“The advantage is that the insurance is cheaper than government (public) insurance. The disadvantages include long waiting for an appointment with a doctor.”
 3. Respondent – woman, Russia, 24 years old, live in Czech Republic for 5-6 years, long-term residence, worker, currently has VZP insurance:
“+Employer pays for medical insurance.”
 4. Respondent – woman, Kazakhstan, 21 years old, live in Czech Republic for 3-4 years, long-term residence, student, currently has MAXIMA insurance:
“Few doctors on the proposed list.”
 5. Respondent – woman, Russia, 27 years old, live in Czech Republic for 5-6 years, long-term residence, work, currently has VZP insurance:
“The advantage is that the employer pays in full.”
 6. Respondent – woman, Ukraine, 23 years old, live in Czech Republic for 5-6 years, long-term residence, work, currently has VZP insurance:
“Minus: higher price (than it has to be), long wait, poor access to the health care. Plus: discount for students.”
 7. Respondent – woman, Russia, 33 years old, live in Czech Republic for 7-8 years, permanent residence, worker, currently has VZP insurance:
“I would like to be able to pay for dentistry by the health insurance as well. At least some percentage, 30-40 %.”
 8. Respondent – woman, Tajikistan, 22 years old, live in Czech Republic for 5-6 years, long-term residence, student, currently has pVZP insurance:
“Valid only in the Czech Republic, not throughout the EU.”
 9. Respondent – woman, Ukraine, 30 years old, live in Czech Republic for more than 8 years, permanent resident, business, currently has VZP insurance:

“In my opinion, advance payments for public insurance premiums should depend not only on your income, but also on your age, health, number of children, demanding work, etc. This means that more factors, such as in the case of commercial insurance, should be assessed. For now, I assess the main shortcoming – the insufficient fair determination of advance payments for VZP insurance premiums. Among the advantages, I would define equal access to health care, which the insured gets, and can expect the same access from doctors, without the need to pay anything extra or any bribes personally.”

10. Respondent – man, Ukraine, 27 years old, live in Czech Republic for 5-6 years, long-term residence, work, currently has VZP insurance:

“High advance payments for insurance – even if the employer pays them, they are still calculated from my salary. I personally don't use that many health services for these huge amounts. For me it is better, easier, faster and cheaper to go home and use the services of the doctor I require there.”

11. Respondent – man, Ukraine, 29 years old, live in Czech Republic for 5-6 years, long-term residence, work, currently has VZP insurance:

“I usually go home and visit all the doctors I need there. Accordingly, the insurance for which I pay – I do not use. I would have been fine with cheaper insurance just for emergency care.”

12. Respondent – woman, Ukraine, 21 years old, live in Czech Republic for 2-3 years, long-term residence, student, currently has pVZP insurance:

„General duty and equal obligations – this is probably a plus of the system. Minus – price, queues, attitude of doctors.”

13. Respondent – woman, Russia, 53 years old, live in Czech Republic for 5-6 years, permanent residence, work, currently has VZP insurance:

„It is difficult to get checkups, referrals, tests from doctors. The insurance system ties the hands of doctors and reduces the quality of medical care. On the other hand, every person has the opportunity to receive medical care, regardless of their income.”

14. Respondent – woman, Belarus, 24 years old, live in Czech Republic for 2-3 years, long-term residence, student, currently has Slavia insurance:

„A confusing scheme of who to contact and how to look for a doctor. From the advantages – in the end, after a long torment, you still get help. Then the truth will begin to suffer with the receipt of accounts and a long expectation of an answer from the insurance company, whether they will reimburse these costs.”

15. Respondent – man, Ukraine, 34 years old, live in Czech Republic for 5-6 years, long-term residence, work, currently has VZP insurance:

„Insurance and hospitals work clearly with emergency care. If the case is not life-threatening or its causes are not obvious, it is preferable to go home with the problem than to try to solve it.“

The most important conclusions can be summarized from the answers obtained:

- respondents often mention the price as a lack of health insurance in the Czech Republic,
- according to their opinions, other shortcomings are – redundant processes and queues for obtaining health care,
- respondents, especially Ukrainians, often solve their health problems by preferring to visit a doctor in their home country. This means that they do not even want to enter the health care process and the health insurance solution in the Czech Republic. If they pay insurance premium advances, it means that they contribute positively to the budget and do not use the financing of their health care in the Czech Republic,
- as an advantage of health insurance – PHI, it was mentioned several times that it is paid by the employer. However, only 1 respondent is aware that taxes are also paid from his salary.

Respondents who expressed their opinion about health insurance were more likely to share a negative experience. It can be assumed that respondents with positive experiences or at least with neutral attitudes were not so interested in participating in the survey.

4.2.2 Questions about the health care in the Czech Republic

Another group of questions was devoted to the evaluation of health care in the Czech Republic in general. It is important because it is linked to the perception of the relationship between the price of the insurance and the scope / quality of health care that is available under this insurance.

The majority of respondents with PHI stated that the quality of medicine is rather good (52,8 %), another part (27,8 %) stated that the quality is average. Holders of the commercial HI said more that the quality is average (45,8 %) or rather good (39,6 %). All the answers of the respondents, divided according to the type of insurance, are given in table 19.

Table 19 Assessment of health care quality in the Czech Republic, based on the respondents' opinions

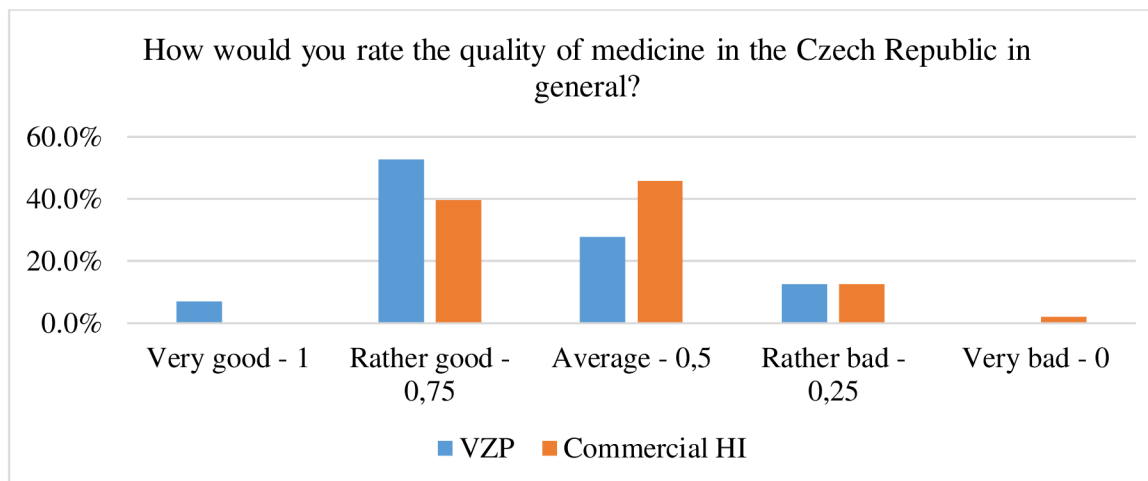
| How would you rate the quality of medicine in the Czech Republic in general? | Total | | PHI | | Commercial HI | |
|--|--------------|---------------|--------------|---------------|---------------|---------------|
| | N | % | N | % | N | % |
| Very good - 1 | 5 | 4,2 % | 5 | 6,9 % | 0 | 0,0 % |
| Rather good - 0,75 | 57 | 47,5 % | 38 | 52,8 % | 19 | 39,6 % |
| Average - 0,5 | 42 | 35,0 % | 20 | 27,8 % | 22 | 45,8 % |
| Rather bad - 0,25 | 15 | 12,5 % | 9 | 12,5 % | 6 | 12,5 % |
| Very bad - 0 | 1 | 0,8 % | 0 | 0,0 % | 1 | 2,1 % |
| Difficult to answer - | 0 | 0,0 % | 0 | 0,0 % | 0 | 0,0 % |
| Total | 120 | 100 % | 72 | 100 % | 48 | 100 % |
| Average answer | 0,604 | 60,4 % | 0,635 | 63,5 % | 0,557 | 55,7 % |

Source: own processing

From the calculation of the average rating, it can be seen that the quality of health care in CR is perceived as average/rather good (60,4 %). In the group of respondents with PHI, this rating is slightly higher (63,5 %) than in the group of commercial insurance owners (55,7 %). This fact can be explained by several reasons. First, it can be assumed that commercial insurance holders are really provided health care on a smaller scale, with a limited number of medical facilities, at higher prices etc. than PHI participants, therefore their overall quality rating is lower. Secondly, it should be noticed, that PHI holders are employees and foreigners with permanent residence in the Czech Republic. These people usually live in the Czech Republic for a long time and are also older. Holders of commercial insurance are often people with long-term residence who have not yet obtained permanent residence and have therefore lived in the Czech Republic for at least more than 5 years. They

are probably younger and have less experience with the health system. Results of the evaluation are also shown by the figure 15.

Figure 15 Assessment of health care quality in the Czech Republic, based on the respondents' opinions



Source: own processing

Another question also related to the price of visiting doctor and using medical services in the Czech Republic. Respondents had to subjectively evaluate how expensive or cheap is visiting a doctor or using a medical service for them personally. The results are summarized in Table 20.

Table 20 Evaluation, how much it costs to visit a doctor and medical services in the Czech Republic for the respondents

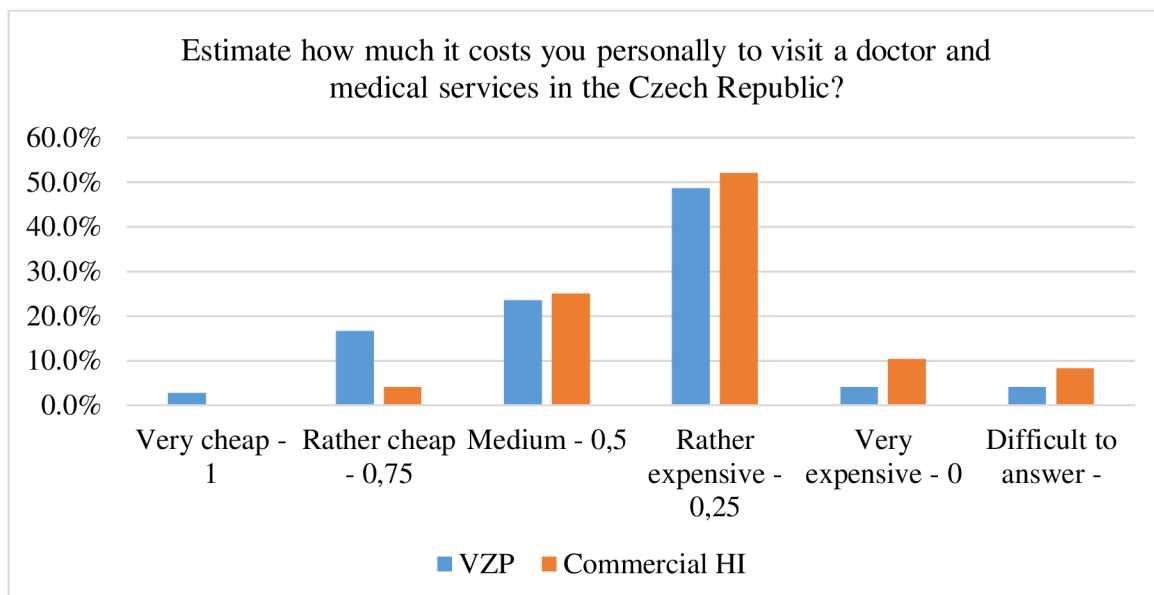
| Estimate how much it costs you personally to visit a doctor and medical services in the Czech Republic? | Total | | PHI | | Commercial HI | |
|---|--------------|---------------|--------------|---------------|---------------|---------------|
| | N | % | N | % | N | % |
| Very cheap - 1 | 2 | 1,7 % | 2 | 2,8 % | 0 | 0,0 % |
| Rather cheap - 0,75 | 14 | 11,7 % | 12 | 16,7 % | 2 | 4,2 % |
| Medium - 0,5 | 29 | 24,2 % | 17 | 23,6 % | 12 | 25,0 % |
| Rather expensive - 0,25 | 60 | 50,0 % | 35 | 48,6 % | 25 | 52,1 % |
| Very expensive - 0 | 8 | 6,7 % | 3 | 4,2 % | 5 | 10,4 % |
| Difficult to answer - | 7 | 5,8 % | 3 | 4,2 % | 4 | 8,3 % |
| Total | 120 | 100 % | 72 | 100 % | 48 | 100 % |
| Average answer | 0,372 | 37,2 % | 0,409 | 40,9 % | 0,313 | 31,3 % |

Source: own processing

Most of the respondents stated that it is an expensive matter (about half of all foreigners interviewed). About a quarter of respondents perceive the price as average. However, the resulting rating is a little lower for PHI owners (40,9 %) than for commercial

insurance owners (31,3 %). It applies here that 100 % would correspond to the answer „very cheap“, 0% - „very expensive“.

Figure 16 Evaluation, how much it costs to visit a doctor and medical services in the Czech Republic for the respondents



Source: own processing

The goal of the next question was to find out what the respondents think about the quality of medical care received by foreigners from 3rd countries, compared to the quality of this care provided to citizens of the Czech Republic. Results are summarized in the table 21.

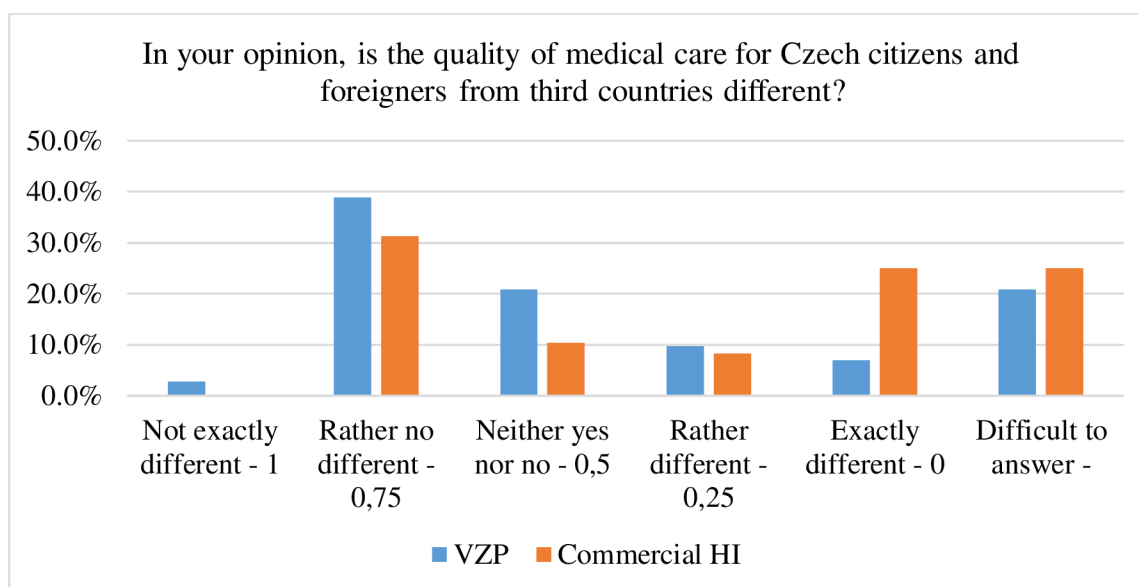
Table 21 Opinion on whether quality of medical care for Czech citizens and foreigners from 3rd countries varies

| In your opinion, is the quality of medical care for Czech citizens and foreigners from third countries different? | Total | | PHI | | Commercial HI | |
|---|--------------|---------------|--------------|---------------|---------------|---------------|
| | N | % | N | % | N | % |
| Not exactly different - 1 | 2 | 1,7 % | 2 | 2,8 % | 0 | 0,0 % |
| Rather no different - 0,75 | 43 | 35,8 % | 28 | 38,9 % | 15 | 31,3 % |
| Neither yes nor no - 0,5 | 20 | 16,7 % | 15 | 20,8 % | 5 | 10,4 % |
| Rather different - 0,25 | 11 | 9,2 % | 7 | 9,7 % | 4 | 8,3 % |
| Exactly different - 0 | 17 | 14,2 % | 5 | 6,9 % | 12 | 25,0 % |
| Difficult to answer - | 27 | 22,5 % | 15 | 20,8 % | 12 | 25,0 % |
| Total | 120 | 100 % | 72 | 100 % | 48 | 100 % |
| Average answer | 0,505 | 50,5 % | 0,566 | 56,6 % | 0,410 | 41,0 % |

Source: own processing

The most frequently given answer was „rather no difference“ between the quality of medical services for foreigners and citizens. It was difficult to give a rating for a fairly significant number of respondents (see figure 17). A significant number of respondents with commercial insurance (25 %) believe that the quality of the litter definitely varies. It is a signal that commercial insurance is not sufficient in terms of the scope and quality of care for foreigners from 3rd countries in the Czech Republic. In situations where, in particular, a foreigner does not yet have experience with health services in the Czech Republic, but already has this assumption, he creates a certain negative stereotype that can prevent him from contacting a doctor in the Czech Republic in a timely manner. And it is known that an early and preventive visit to the doctor can prevent serious health problems that will eventually be associated with high financial costs – from the patient's side and the insurance system.

Figure 17 Opinion on whether quality of medical care for Czech citizens and foreigners from 3rd countries varies

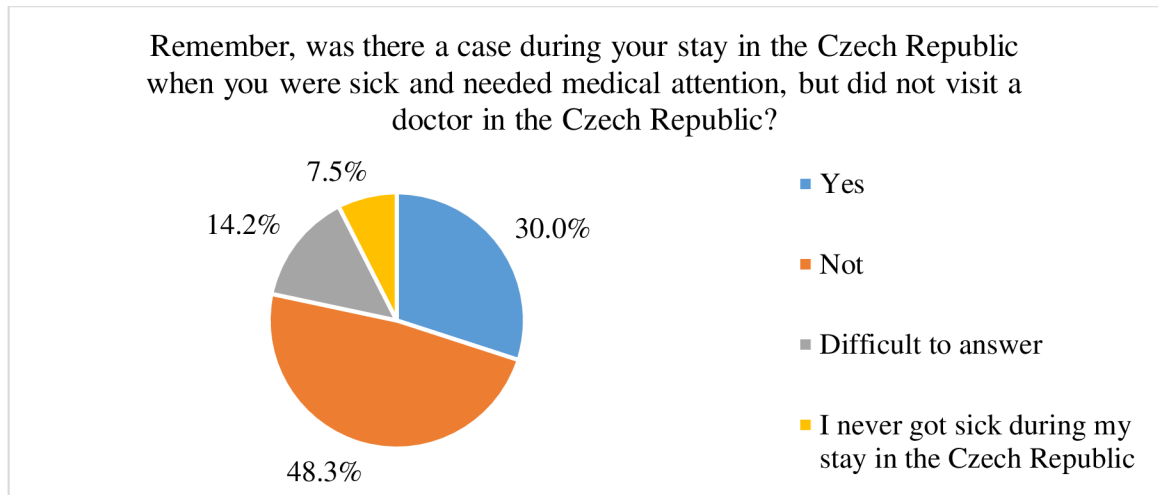


Source: own processing

The above assumption that mistrust and a certain negative perception of the quality of healthcare leads to a decrease in motivation to consult a doctor in the Czech Republic is also confirmed by the answers to the next question. Respondents were asked to remember, was there a case during your stay in the Czech Republic when they were sick and needed medical attention, but did not visit a doctor in the Czech Republic. The answers are shown with the help of figure 18.

Almost a third of the respondents (36 persons, 30 %) state that these situations have occurred. Less than half (58 persons, 48 %) said that no, these situations did not occur in their lives. For 17 respondents (14 %), it was difficult to answer this question. And 9 persons (7,5 %) stated that they had never been sick in the Czech Republic.

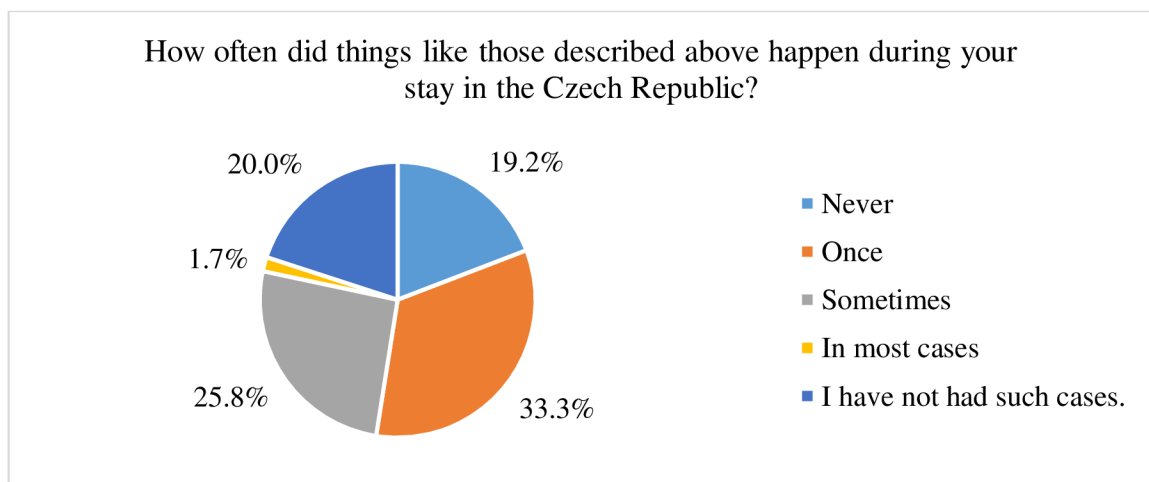
Figure 18 Refusal to visit a doctor in the Czech Republic in a situation where the respondent is ill



Source: own processing

A positive finding is that the situations described above occur in most cases with only 2 respondents (1,7 % of the sample). A quarter of respondents (31 persons, 25,8 %) state that it happens sometimes and a third (40 persons, 33,3 %) – only once. Almost a fifth (23 persons, 19,2 %) state that these situations have never occurred (see figure 19).

Figure 19 How often were the situations when the respondent refused to see a doctor in the Czech Republic, even when he was sick



Source: own processing

Furthermore, an attempt was made to find out the reasons why the respondents did not turn to a doctor in the Czech Republic in certain cases. 10 statements (see table 22) were presented and respondents were asked to indicate to what extent they agreed with them. To do this, they used the response scale described in the notes to the table below. An average rating was calculated, indicating the average agreement/disagreement with the given statements.

Table 22 Reasons, why respondents did not see a doctor in the Czech Republic

| Statement | Average answer |
|--|---|
| I assumed I could heal/recover myself | 0,75 – rather yes |
| I don't like going to doctors in general | 0,325 – rather not / neither yes nor no |
| I feel embarrassed and for that reason I don't go to the doctor | 0,275 – rather not |
| I do not trust the qualifications of doctors in the Czech Republic | 0,175 – rather not / exactly not |
| I have visited /I'm going to visit a doctor in my country | 0,55 – neither yes nor no |
| I don't know the Czech language well enough | 0,15 – rather not / exactly not |
| Waiting times for doctors in the Czech Republic are very long | 0,773 – rather yes |
| I know my insurance doesn't cover this doctor's visit | 0,33 – neither yes nor no / rather not |
| I don't know if insurance covers such visits to the doctor and decided not to risk my finances | 0,275 – rather not |
| I don't have enough money / I don't want to spend money on visiting a doctor in the Czech Republic | 0,375 – neither yes nor no / rather not |

Scale for answers: Exactly not = 0, Rather not = 0,25, Neither yes nor no = 0,5, Rather yes = 0,75, Exactly yes = 1.

Source: own processing

According to the results, it can be claimed that the most common causes were long waiting times for doctors (0,773 – rather yes) and the assumption or hope that the person will heal on their own (0,75 – rather yes). This indicates a problem with waiting times and a lack of medical personnel in the Czech Republic. However, it should be noted that this results from the opinions of respondents who compare this situation with their previous experiences or expectations. If they were to compare it with other countries (e.g. Great Britain, Germany), it is likely that waiting times in the Czech Republic would be rated better.

Some respondents also said that they chose to see a doctor in their home country (the average answer is 0,55, which is more than „neither yes nor no“ but less than „rather yes“). Other reasons were less important for the respondents, as it can be seen in the table 22.

4.2.3 Evaluation of hypotheses

At the beginning of the work, two research hypotheses were established, which relate to the different attitudes of foreigners with PHI and commercial insurances.

- Foreigners with permanent residence in the Czech Republic are more satisfied with the health care, which is allowed them according to their health insurance, than foreigners with temporary residence.

This hypothesis was confirmed due to the fact that respondents with PHI rate the range of services provided to them under insurance better than respondents with commercial insurance. Average evaluation of the satisfaction with the medical insurance in terms of the covering a sufficient amount of medical services is 66,3 % in the group of PHI holders and 34,4 % in the group of commercial HI holders. Most often, PHI holders gave the answer “rather satisfied” (68,1 %) or satisfied (9,7 %). Among commercial HI holders, the most frequently stated answer was “average satisfaction” – 41,7% or “rather dissatisfaction” (35,4 %).

- Foreigners with temporary residence in the Czech Republic more often than foreigners with permanent residence state the insufficient scope of their insurance as a reason for refusing to visit a doctor in their illness.

To evaluate this assumption, the respondents' answers to the question where they evaluated the degree of agreement with the statements are used. These statements related to the reasons why they can refuse to see a doctor in the Czech Republic even if they are sick. A comparison of responses from respondents with PHI and commercial insurance is provided in the table 23. This is the statement “I know my insurance doesn't cover this doctor's visit.” Respondents with commercial insurance were more likely to agree with the statement than respondents with PHI. The average response is higher for commercial insureds (0,402) than for public insureds (0,265), which is due to the fact that more public insureds mentioned disagreement with the statement. Based on this, it can be claimed that

the research hypothesis was confirmed, i.e. respondents with commercial insurance justified their refusal of the doctor visiting by the insufficient scope of their insurance more often than PHI insured persons.

Table 23 Comparison of the respondents' answers – if the insufficient scope of the insurance can be a reason for refusing to visit a doctor in the Czech Republic

| Statement: „I know my insurance doesn't cover this doctor's visit“ | Total | | PHI | | Commercial HI | |
|--|-------|--------|-------|--------|---------------|--------|
| | N | % | N | % | N | % |
| Exactly yes – 1 | 4 | 6,0 % | 0 | 0,0 % | 4 | 12,1 % |
| Rather yes – 0,75 | 9 | 13,4 % | 5 | 14,7 % | 4 | 12,1 % |
| Neither yes nor no – 0,5 | 12 | 17,9 % | 5 | 14,7 % | 7 | 21,2 % |
| Rather no – 0,25 | 22 | 32,8 % | 11 | 32,4 % | 11 | 33,3 % |
| Exactly not – 0 | 20 | 29,9 % | 13 | 38,2 % | 7 | 21,2 % |
| Total | 67 | 100 % | 34 | 100 % | 33 | 100 % |
| Average answer | 0,332 | 33,2 % | 0,265 | 26,5 % | 0,402 | 40,2 % |

Source: own processing

5 Results and Discussion

The work carried out is devoted to the topic of health insurance of foreigners in the Czech Republic, with an emphasis on foreigners from the 3rd countries, whose number has been increasing considerably in the Czech Republic in recent times. Even the coronavirus pandemic did not cause a reversal of this trend, while the number of foreigners from the EU, on the contrary, has a decreasing tendency.

Health care is one of the indicators of the quality of life and sustainable development of society, which is pointed out by numerous authors, sociologists, economists and researchers. Access to health care is regulated variously in different countries. In the first part of the thesis, for example, various types of health systems and methods of financing health care were described. The literature review shows that various criteria must be taken into account for the selection and management of the health care and health financing system. The need to ensure the availability of health services, to an adequate extent and at affordable prices, is one of the goals of the policy of a modern country. In the Czech Republic, the topic of health care and health insurance of foreigners has been receiving increased attention for a long time. Especially with the growth of immigration, internationalization and globalization trends, this issue is becoming more and more important.

In the practical part of the work, an analysis of the health insurance system in the Czech Republic was carried out with the aim of evaluating the demand for health services from foreigners, the amount of financing needed to satisfy the demand, etc. An important part of the work is the definition of the conditions and rules of health insurance for foreigners. There is some confusion in this area and therefore a summary of the current conditions is a benefit of the work that can be used by a foreigner or other concerned persons who are interested in the topic of health insurance.

The amendment to the Act on Health Insurance for Foreigners from August 2021 changed the shape of the health insurance market in the Czech Republic. Since then, the possibility to choose from several offers of commercial insurance companies has been limited for foreigners. They are therefore obliged to be commercially insured by VZP, if they have a long-term stay in the Czech Republic. This measure is clearly motivated by the need to eliminate inequalities in foreigners' access to health care in the Czech Republic and

to eliminate inequalities in the costs associated with different types of insurance. However, from the point of view of the insured, it is another strict obligation that limits their actions and choices in the market.

It was found that foreigners, especially Ukrainians, have considerable debts to health service providers, which result from their status as self-payers. An amendment to the Insurance Act can help eliminate this problem.

On the other hand, it will probably be associated with an increase in the costs of insurance companies to pay for the health care of foreigners. The calculations conducted in this thesis show, that the costs per person of a foreigner are considerably lower in commercial insurance companies than the costs of public health insurance companies per person.

A positive fact from the point of view of public resources is that foreigners are mostly people of working age who actively contribute taxes and levies to the state budget. At the same time, due to the fact that they are relatively young and healthy, they will use less health care than, for example, the elderly. From this it can be concluded that the involvement of more foreigners in the public health insurance system will be beneficial for public resources rather than costly.

In the Czech Republic, social contributions for the unemployed are lower and less attractive from the point of view of people than, for example, in Germany. Therefore, living on social support appears to be an unattractive prospect for foreigners. They are trying to find work, and for that they will divert money to public budgets. It is another reason why foreigners should not create a problem for the public insurance system in the Czech Republic.

The topic of including foreigners without permanent residence in the Czech Republic in public health insurance has been widely discussed for a long time and has its opponents and supporters. For example, in 2014, a survey was conducted by the STEM/MARK agency among 512 Czechs regarding their opinion on the inclusion of all foreigners from third countries in PHI. At the end of this internet survey, it was found that almost 76 % of respondents are not satisfied with it, and this is because they are afraid of an increase in the amount of the insurance premium (Alföldi-Šperkerová, 2015). However, according to the discussion “Health insurance of migrants and female migrants” (2014), foreigners who come to the Czech Republic are most often young people of working age, which means that they would contribute more to the health insurance system than they would draw from it.

Furthermore, among the positive arguments, they also add the possible elimination of existing inequalities and injustices regarding foreigners' access to health care. To reduce the possible risk of abuse of such changes to the system, it was proposed to provide migrants with a "waiting period", only after which the foreigner would have the opportunity to participate in the PHI.

Why is foreign involvement in PHI so desirable? In addition to the fact that this will reduce the risks of foreign nationals becoming indebted to medical facilities, it will help to increase the quality of life of foreigners in the Czech Republic in general. As PHI covers a greater range of health care and makes more medical facilities available to the insured than commercial health insurance, which was previously compulsory for foreigners. The results of the own survey show that foreigners who have commercial insurance are not very satisfied with the scope and quality of the provided health care, to which they are entitled according to their insurance contract. On the contrary, foreigners insured with PHI rate these facts better. It is another reason that argues that the involvement of foreigners in PHI will be beneficial in terms of increasing their quality of life. The availability and quality of health care are one of the essential indicators of high and sustainable development of society.

The burden of the PHI system needs to be assessed not only from the point of view of the financial costs encountered by public budgets, but also from the point of view of the physical burden on healthcare facilities. There is a certain problem in the Czech Republic, consisting of a lack of doctors and non-medical medical personnel. This means that an increase in the number of patients can create a risk of queues, longer waiting times and a decrease in the quality of healthcare provided in general. Support for healthcare and education in this area, which will support the creation of new job resources, should be important elements of national policy.

6 Conclusion

The main aim of the thesis was fulfilled by the comparing the health insurances, offered for foreigners from the third countries with temporary and permanent residence in the Czech Republic, and identification the differences between offered types and to evaluate these offers from the users' views.

It can be assumed that public health insurance (PHI), which is usually used by citizens of the Czech Republic, is only available for certain categories of foreigners from third countries – mainly for persons with permanent residence and employed persons. Other foreigners – about half of whom are in the Czech Republic – have the right and at the same time the obligation to conclude a contract with a commercial insurance company. Changes in the law in August 2021 brought a certain modification in the health insurance systems, which consists in the fact that foreigners with a long-term stay must conclude a commercial insurance contract with the company VZP. It narrows the gap in access to health services for foreigners with PHI and commercial comprehensive insurance, as it was before, but it also increases costs for foreigners and limits the options to choose from different commercial insurers.

There were made calculations of the costs of commercial insurance companies for the health care of foreigners from third countries and the costs of public insurance companies for the health care of foreigners in this thesis. It can be concluded that the costs of commercial insurance companies are considerably lower than those of public insurance companies (e.g. in 2020 they amounted to 7 205 CZK per person at commercial insurance companies and 34 517 CZK per person at public insurance companies). However, foreigners who were not participants of PHI are often self-payers, and many of them subsequently owe large sums of money to health care facilities for the provision of care. The recovery of payments is quite a difficult matter, especially due to the limited possibilities to influence foreigners and their ability to pay in the Czech Republic.

Primary research, carried out in the form of a questionnaire among 120 foreigners from third countries, shows that many of them prefer to visit a doctor in their home country, regardless of the type of insurance they have. They justify this by the lengthy and difficult processes involved in obtaining health services in the Czech Republic.

60 % of PHI holders and 40 % of commercial insurers participated in the primary research. It made it possible to compare these types of insurance from the point of view of foreigners, and in this way to fulfill the set goals of the work. The survey results show that PHI holders rate the range of health care services available to them much better than holders of commercial health insurance. They also rate communication with the health insurance company better. On average, the price of health insurance in the Czech Republic is perceived equally by respondents with both types of insurance – for most respondents, the price is perceived as rather expensive. Price perception is likely influenced by the fact that respondents believe they are not spending as much on health care as they are paying for their insurance. They are mostly young, healthy (they rarely consult a doctor and often believe that they can heal themselves without the help of doctors) and often visit doctors in their home countries. It can be seen in particular from the answers of the interviewed Ukrainians.

Part of the research were open-ended questions, where some of the respondents expressed their opinions on the advantages and disadvantages of health insurance and the health system of the Czech Republic. These opinions, as well as other results of the work, indicate that the issue of adjusting the rules of health insurance for foreigners from third countries is still relevant in the Czech Republic. Given the specifics of people's mentality, ways of using healthcare services or past experiences, it may be appropriate to slightly adjust the conditions of health insurance for foreigners, which will suit them better, increase their quality of life and satisfaction with life in the Czech Republic. High satisfaction is especially important for foreigners from those groups who create an active and qualified workforce on the Czech labor market, transfer money to the state budget and build a healthy segment of society. Foreigners in the Czech Republic make up 6,3 % of the population in 2021, which is a significant share, and their influence on the socio-economic processes in the Czech Republic cannot be underestimated.

From the point of view of the public budget and the business of commercial insurance companies, it is also important that the existing health system meets the requirements and needs of society. As part of the analysis, it was found that 14,3 % of health care costs for foreigners who are not PHI participants remain unpaid. In the case of health care provided to Ukrainians, the share of unpaid health care is even higher – 22,2 % in 2021. Converted to 1 patient who is not a PHI participant and who was provided with health care, this amounts to 15,4 thousands CZK, for Ukrainians – 23,2 thousands CZK. This creates significant risks

for the stability of the health system, therefore, from this point of view, the steps to unify the rules of health insurance for foreigners can be evaluated positively.

The work indicates the need and importance of continuous improvement of the health insurance system for foreigners. Certain recommendations can be discussed separately, such as the introduction of a temporary “trial” period for all foreigners entering the territory of the Czech Republic, during which they must take out commercial insurance and subsequently become mandatory PHI participants. Another recommendation that can improve the current system is the consideration of more factors that determine the amount of health insurance advances - i.e. to consider not only the amount of income, but also age, length of stay in the Czech Republic, past experience with health care, financed from public budgets or insurance companies, etc.

The work has an obvious benefit both from the point of view of foreigners (up-to-date information on insurance conditions, advantages and disadvantages) and from the point of view of authorities and health insurance companies, as it provides information that can help in the development of improvement measures for the health system and health insurance system. For health insurance companies, it would be particularly appropriate to increase the quality of informing the insured foreigners about the procedures they must follow when drawing health services and using insurance.

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8 Appendix

| | | |
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Appendix A Questionnaire form

Questionnaire

on the topic of health insurance for foreigners in the Czech Republic

The survey is conducted as part of writing a diploma thesis at the Czech University of Life Sciences in Prague (ČZU). The final version of the work, in which the results of the survey will be used, will be in the public domain and available for review in the university's thesis catalog. The work can help to attract the public attention to the issue of medical care for foreigners in the Czech Republic. The survey is anonymous, so please provide honest and complete answers.

Attention! Only foreigners from third countries (Ukraine, Russia, Kazakhstan, Uzbekistan, Belarus, etc.) who have been living in the Czech Republic for more than a year on the basis of a long-term or permanent residence permit (dlouhodobý pobyt / trvalý pobyt) can take part in the survey. In connection with the goal of the thesis, the survey **is not** intended for citizens of Ukraine with a visa of patience (viza strpění) / for the purpose of temporary protection (za účelem dočasné ochrany), as well as to foreigners who have acquired Czech citizenship.

Thanks in advance for your time!

1. What's your gender
 - male
 - female

2. Your age (indicate the number of completed years):
..... years old

3. Are you a citizen/citizen of:
 - Ukraine
 - Russian Federation
 - Republic of Kazakhstan
 - The Republic of Belarus
 - Other country:

4. How long have you been living in the Czech Republic?
- 1-2 years
 - 3-4 years
 - 5-6 years
 - 7-8 years old
 - Over 8 years
5. What city in the Czech Republic do you currently live in?
- Prague
 - Brno
 - Pilsen
 - Another city:
6. What type of residence permit do you have in the Czech Republic?
- Long-term stay (dlouhodobý pobyt)
 - Permanent residence (trvalý pobyt)
7. What is your current purpose of stay in the Czech Republic:
- Education
 - Work (employment)
 - Business (company / own-account worker)
 - Family reunion
 - Permanent residence
 - Other:

Questions about health insurance in the Czech Republic

8. What is your current health insurance?
- VZP
 - pVZP
 - MAXIMA
 - Slavia
 - UNIQA

- ERGO
- Other:
- Difficult to answer

9. Do you think that your medical insurance covers a sufficient amount of medical services?

- Absolutely not – 0
- Probably not – 0,25
- Medium – 0,5
- Rather yes – 0,75
- Exactly yes – 1
- Difficult to answer

10. How would you rate the quality of communication with the insurance company?

- Very bad
- rather bad
- Medium
- rather good
- Very well
- I didn't have to contact the insurance company

11. Who pays for your health insurance currently?

- I myself
- The employer, completely
- Employer and me
- Husband / wife
- Parents

12. How would you rate the cost of your health insurance in the Czech Republic?

- Very expensive
- Rather expensive
- Medium
- Rather cheap

- Very cheap
- Difficult to answer

13. Do you have debts / unpaid invoices for medical services in the Czech Republic that were not covered by insurance?

- Yes
- Not
- I do not want to answer

14. Would you like other health insurance?

- Absolutely not
- Probably not
- Medium
- Rather yes
- Exactly yes
- Difficult to answer

List the advantages and disadvantages that you think your health insurance has:

.....

.....

.....

Questions about health care in the Czech Republic

15. How would you rate the quality of medicine in the Czech Republic in general?

- Very bad
- Rather bad
- Average
- Rather good
- Very good
- Difficult to answer

16. Do you think you are receiving medical care/contacting doctors in the Czech Republic:

- Often
- Rarely
- Never

17. Indicate the type of medical care that you received in the Czech Republic, and which, in your opinion, was the most significant:

- I have never received medical assistance in the Czech Republic
- Dental services
- Accompanying pregnancy and childbirth
- Non-surgical treatment of injuries (wounds, fractures, dislocations, etc.)
- Operations related to injuries
- Elective surgeries (e.g. chronic diseases)
- Emergency operations (eg appendicitis)
- Testing, ultrasound, x-rays, MRI, etc.
- Own answer:

.....

- Difficult to answer

18. Estimate how much it costs you personally to visit a doctor and medical services in the Czech Republic?

- Very expensive
- Rather expensive
- Medium
- Rather cheap
- Very cheap
- Difficult to answer

19. In your opinion, is the quality of medical care for Czech citizens and foreigners from third countries different?

- Not exactly different
- Rather no different

- Neither yes nor no
- Rather different
- Exactly different
- Difficult to answer

20. Have you personally encountered situations in the Czech Republic when, as a foreigner, you were denied medical assistance / you received medical assistance in insufficient volume or quality? If yes, please briefly describe the situation:

- Not
- Yes:

.....

21. Remember, was there a case during your stay in the Czech Republic when you were sick and needed medical attention, but did not visit a doctor in the Czech Republic?

- Yes
- Not
- Difficult to answer
- I never got sick during my stay in the Czech Republic

22. How often did things like those described above happen during your stay in the Czech Republic?

- Never
- once
- Sometimes
- In most cases
- I have not had such cases.

23. What was the reason why you did not see a doctor in the Czech Republic? Indicate how the given reason matches your situation

| | Absolutely not | Probably not | Neither yes nor no | Rather yes | Exactly yes |
|--|-------------------|-----------------|--------------------------|---------------|----------------|
| I assumed I could heal/recover myself | | | | | |
| I don't like going to doctors in general | | | | | |
| I feel embarrassed and for that reason I don't go to the doctor | | | | | |
| I do not trust the qualifications of doctors in the Czech Republic | | | | | |
| I have visited /I'm going to visit a doctor in my country | | | | | |
| I don't know the Czech language well enough | | | | | |
| Waiting times for doctors in the Czech Republic are very long | | | | | |
| I know my insurance doesn't cover this doctor's visit | | | | | |
| I don't know if insurance covers such visits to the doctor and decided not to risk my finances | | | | | |
| I don't have enough money / I don't want to spend money on visiting a doctor in the Czech Republic | | | | | |

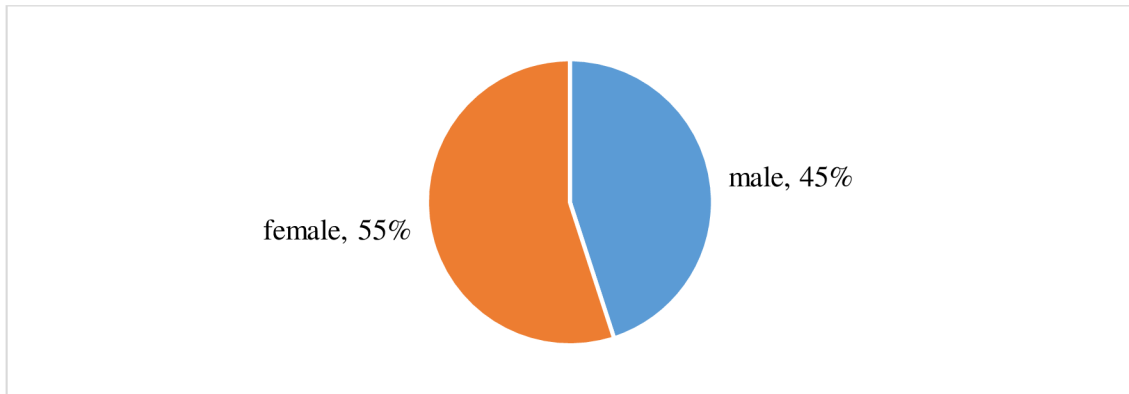
24. How did you resolve the above situation?

- No way
- Self-medication
- Consulted a doctor in another country
- Appealed to friends/relatives who work in medicine
- I have not had such situations.

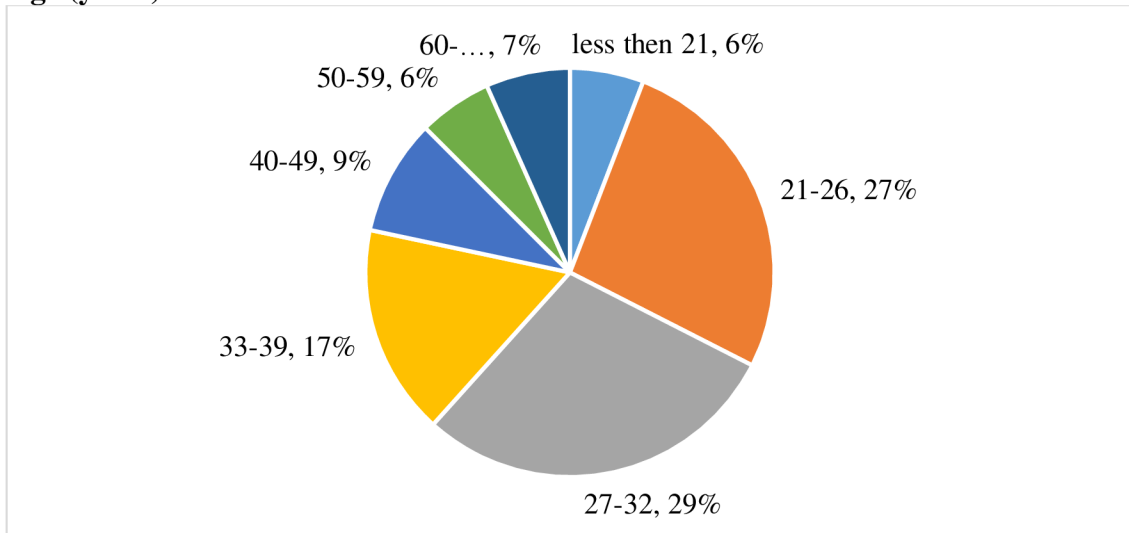
Thank you for your responses!

Appendix B Characteristics of respondents

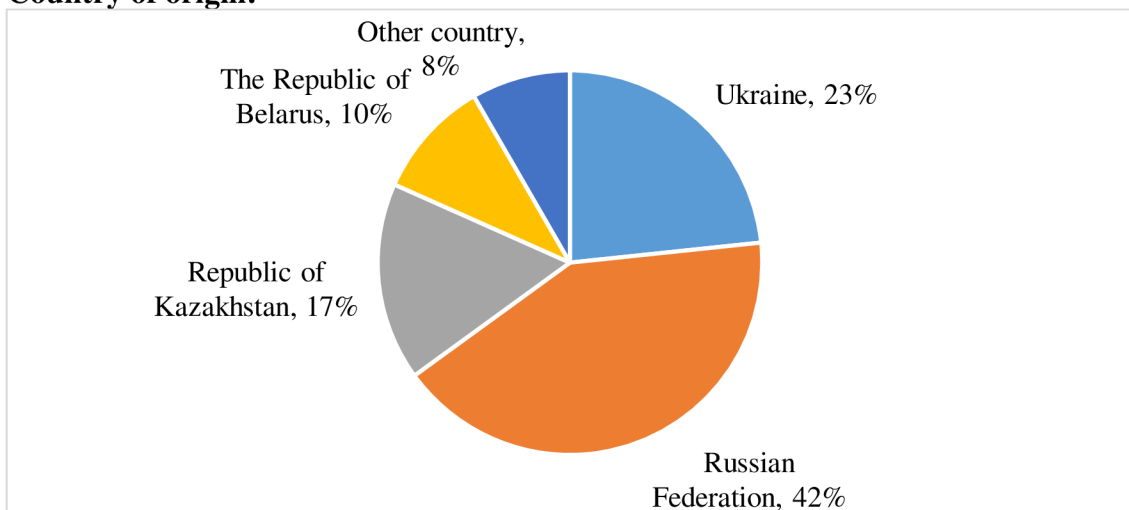
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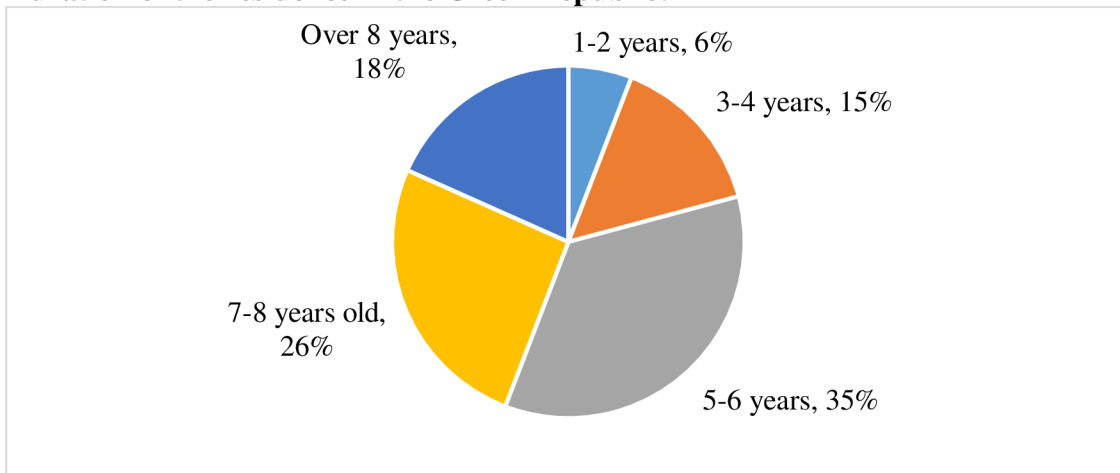
Age (years):



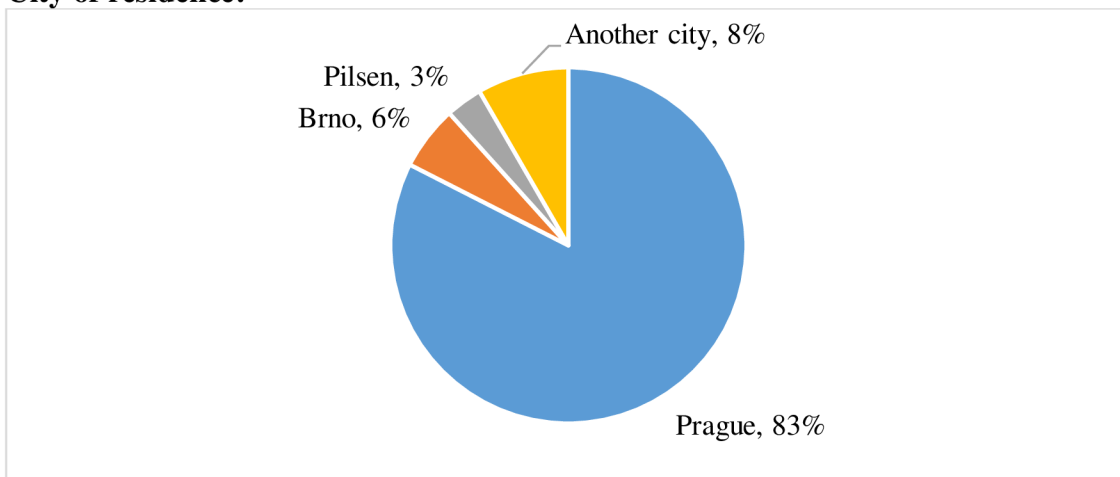
Country of origin:



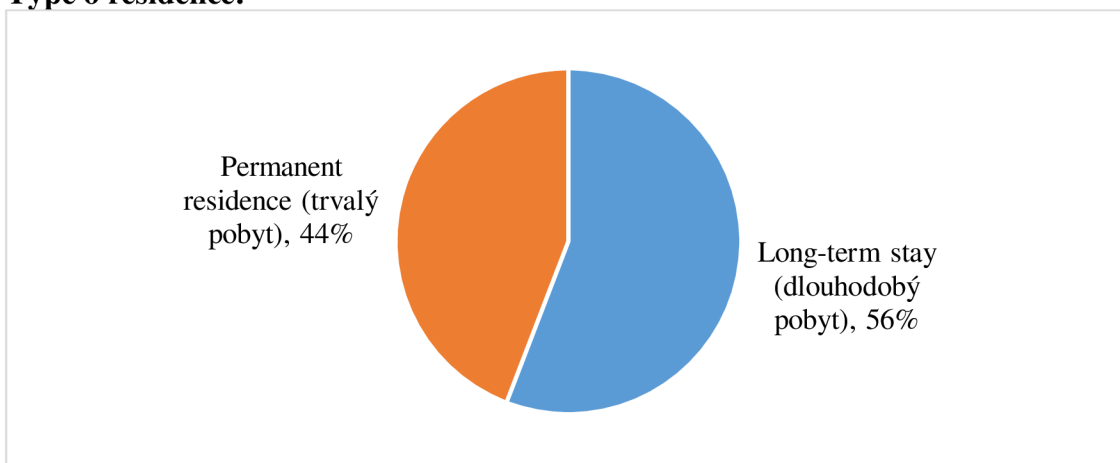
Duration of the residence in the Czech Republic:



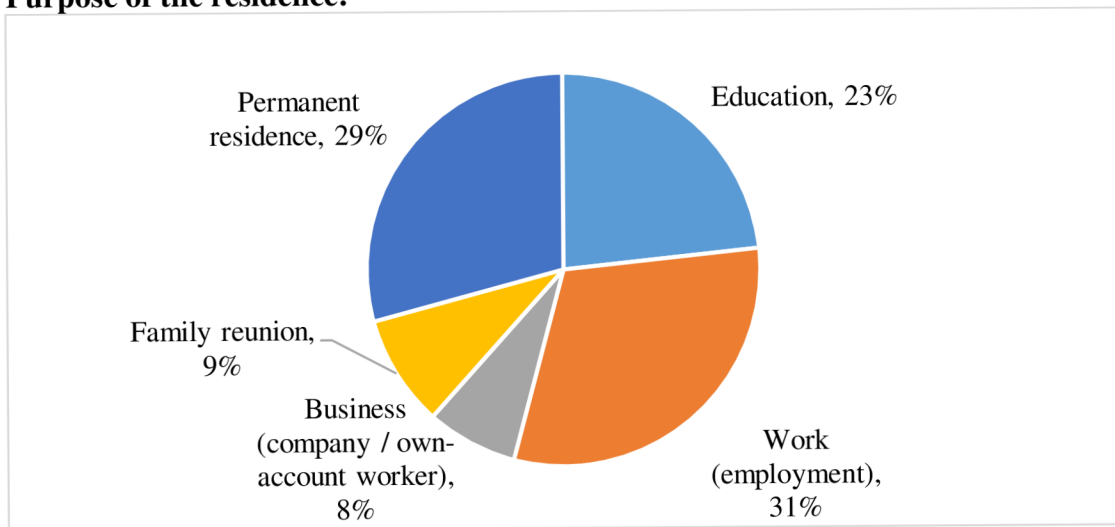
City of residence:



Type o residence:



Purpose of the residence:



Source: own processin