FISCAST

Policy study 10:

# Universal Health Insurance in the Republic of Macedonia and Effects from the Implementation of the Project "Health Insurance for All"

**Authors:**
**Maja Parnardjieva - Zmejkova and**
**Vladimir Dimkovski**

FINANCE THINK
OUT OF THE BOX

# Universal Health Insurance in the Republic of Macedonia and Effects from the Implementation of the Project "Health Insurance for All"

**Authors:**

Maja Parnardjieva - Zmejkova and Vladimir Dimkovski

**Reviewer:**

Rubin Zarevski, PhD

Funded by UK Government

This product is prepared within the project "FISCAST+: Fiscal transparency and accountability improves policies in quality of life, education and health" funded by the UK Government with the support of the British Embassy Skopje. The content of this publication does not necessarily reflect the position or the opinions of the UK Government.

Table of Contents

## 1. Introduction

Everyone is entitled to adequate health care. A significant obstacle to exercising this right is often the high price of health services vis-à-vis individual income. Therefore, the countries' health financing policy is based on risk pooling mechanisms aimed at protecting individuals from the barriers to health services, usually with a particular emphasis on those most affected, namely the most destitute.

Around one-half of the world's population is not covered by any form of social health care, and is forced to incur out-of-pocket expenditures when using health care, i.e. mobilising their own resources to finance health services. More than 90 percent of the population unable to receive adequate health care lives in low-income countries. Even within the countries, the highest risk of a serious disease, death and financial catastrophe related to health expenditure is run by the poorest portion of the population.

One of the top priorities of health systems is the establishment of a system that will ensure financial protection of the population in meeting health needs, i.e. providing health services without the risk of a financial catastrophe and impoverishment (WHO, 2010).

Such concept and goal is known as universal health coverage and is the basis for preventing poverty and resolving inequalities in health systems.

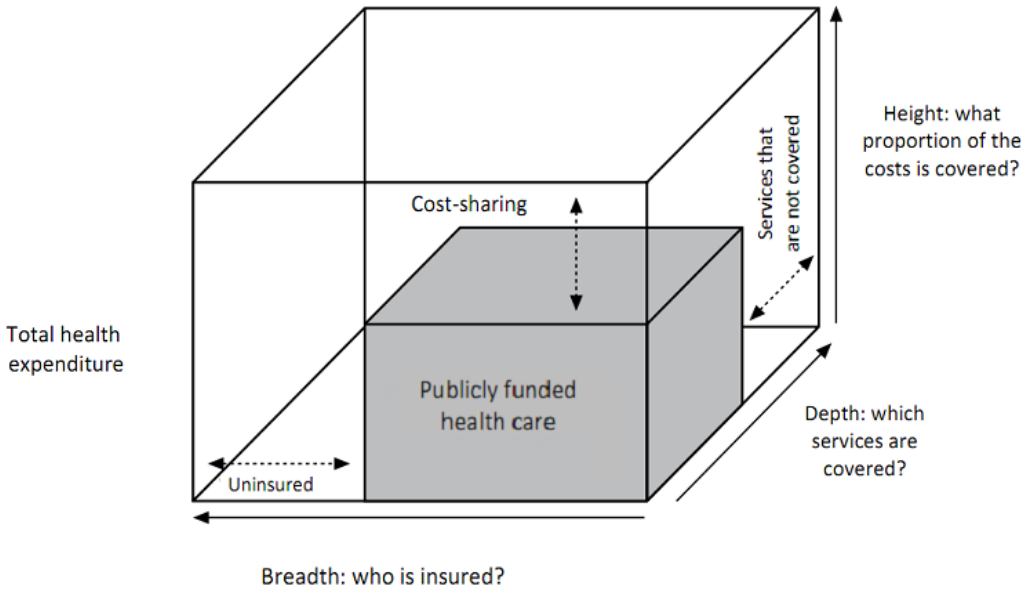
Recognising the importance of the concept and need of establishing adequate health financing systems in the countries, WHO in 2005 with its then 192 members endorsed a resolution titled "Sustainable health financing, universal coverage and social health insurance, calling for countries to develop financing systems ensuring access to services needed by the population without the risk of financial catastrophe.

The priority of universal health coverage was additionally increased by its inclusion in the United Nations as a target group in goal 3 of the sustainable development goals (SDI), whereby UN members committed to ensure a better care level in the agenda after 2015. That is why today the majority of countries, particularly those with low and middle income level, design and implement strategies for progress or attainment of this goal.

The universal coverage concept is not based only on the population's health insurance, which is just one of the three dimensions of this goal (World Health Organization, 2013). Figure 1 shows the three dimensions of universal coverage, namely: breadth in terms of population, depth of health services covered and height indicating the extent of financial protection. With regard to the Macedonian health system, breadth means the number of insured population, depth means health services covered by health insurance, and height means the level of co-insurance paid by insured persons.

Universal coverage may be assessed as fully achieved when these three dimensions are completely filled. However, no country in the world has covered 100 percent of the services for 100 percent of the population by covering 100 percent of the expenses. Even so, all countries strive to achieve an increasingly greater coverage in all three dimensions of universal health coverage, within the possibilities and funds available to them.

*Figure 1 Three main dimensions of the basic package of universal health coverage*




*Source: Adjusted from Busse R, et al. 2007*

Although all three dimensions cover different aspects of the concept, the common thing is that they all impact the level of out-of-pocket expenditures.

Household out-of-pocket expenditures in using health services are the most unorganised form of health expenditure, but on the other hand, they make the largest share in the structure of total expenses in the low- and middle-income countries (World Health Organization, 2014). Their adverse effect on the poor forces people to use expensive coping mechanisms, such as loans with high costs and interest rates, assets and property sale, decrease in other spending. It is estimated that worldwide, about 150 million people are affected by health expenditure, and around 100 million are pushed below the poverty line due to out-of-pocket health expenditures. In addition, predominant share of the poor are not able to afford health care and suffer from ill-health for a longer period.

*Table 1 Health financing sources*

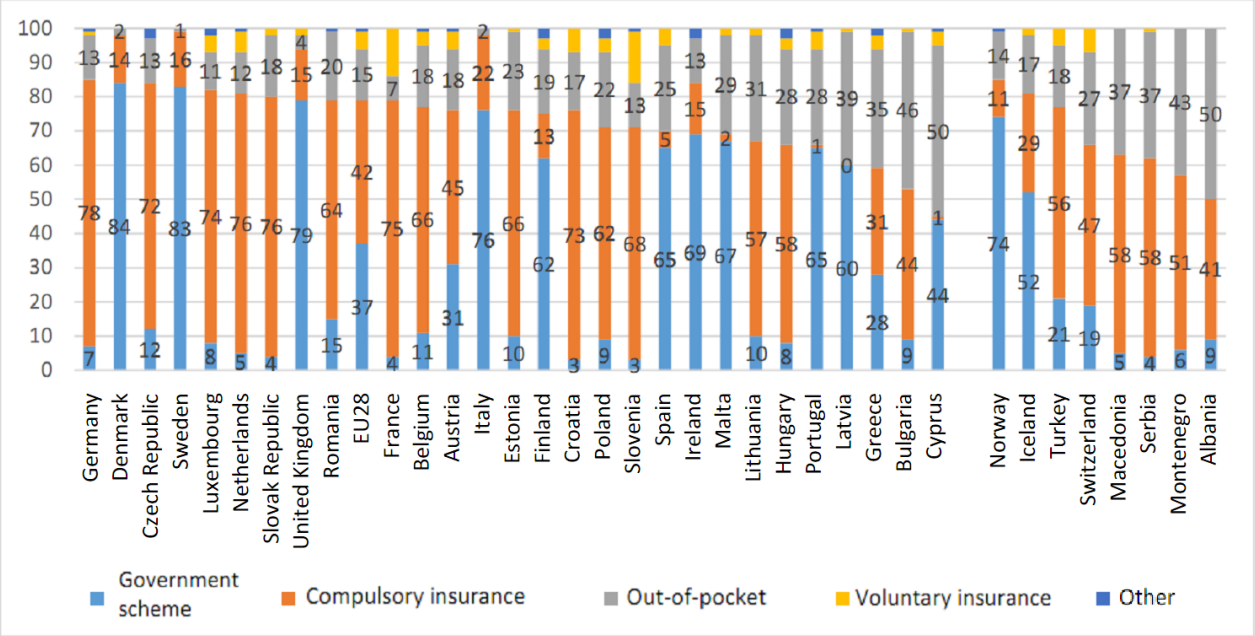
| *Group of countries* | % of GDP | Public funding as % of the total | Private funding as % of the total | External sources |
|---|---|---|---|---|
| *Low income* | 5.7 | 41.1 | 58.9 | 28.4 |
| *Low middle income* | 4.5 | 36.2 | 63.8 | 3.3 |
| *Upper middle income* | 6.1 | 56.0 | 44.0 | 0.2 |
| *High income* | 12.0 | 61.9 | 38.1 | 0.0 |
| *Globally* | 9.9 | 60.1 | 39.9 | 0.2 |

*Source: WHO Global Health Expenditure Database*

If in the low- and low-middle-income countries the high level of out-of-pocket expenditure is due to the absence or weak characteristics of the social health systems; in the middle- and high-income-countries, the high private spending is due to co-insurance in health expenditure (in a different form) or health systems failing to provide adequate health care coverage for the vulnerable share of the population. However, the chart below shows that each country has a unique structure of health expenditure (amount in terms of GDP, relationship between public and out-of-pocket expenditures). Namely, the USA has a market health system where the expenses for health services are the highest and participate with the largest share of GDP; where in 2007, 70 million people had medical debts, and 62 percent of personal bankruptcy was due to medical reasons. In the EU, on the other hand, unmet health care needs, which were previously

in constant decline, increased during the crisis as a result of the decreased public funding for health care and the rise in health care needs, usually by reducing public expenses in terms of GDP and transferring the financial burden for health care to the population; and in 2014, they again reached the level from 2007 (determining that the cyclical health policy produces unfavourable results and gradually going back to the previous level of expenditure) (Thomson, S. et al. 2016).

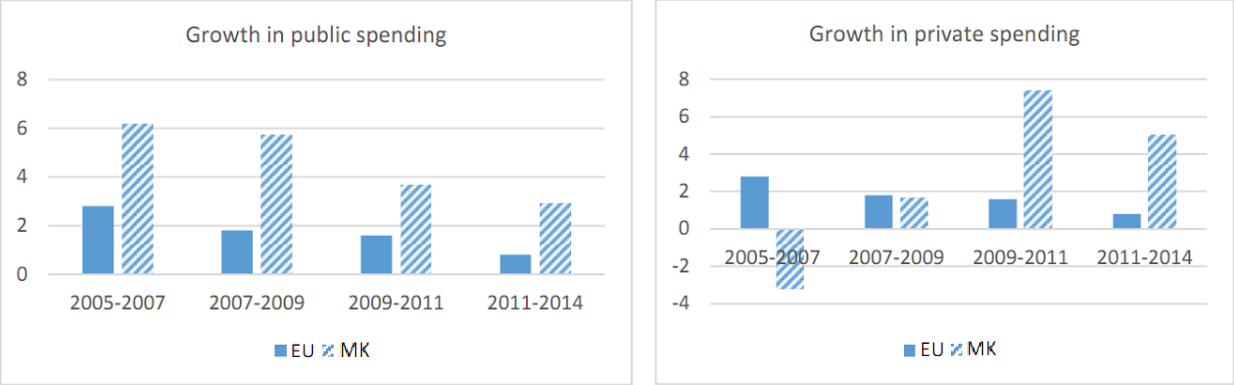
*Figure 2 Health expenditure, structure per counties, 2014*




*Source: OECD Health at a glance 2016*

The emergence of financial crises emphasised the reality of limited health resources, as a significant element hampering the universal health coverage progress. On the one hand, the needs for funding are continuously on the rise based on several factors: aging of the population, chronic diseases, new technology, demand; and on the other hand, the available resources are limited by economic growth. Consequently, it is impossible for any country to offer unlimited free health services for the entire population. Therefore, it is necessary to ensure an optimal way of using the available resources generated in the health system. Also, it is important to pay attention to out-of-pocket payments, namely, although after the financial crises most of the countries increased the share of out-of-pocket payments vis-à-vis public payments for health care, nevertheless, all countries have to avoid this unfavourable trend because it directly affects the impoverishment of the population using health services.

*Figure 3 Annual average health spending growth in EU and in Macedonia, 2014*




*Source: OECD Health at a glance 2016, WHO Global Health Expenditure Database*

Our study focuses on the level of universal health coverage of the population in Macedonia, which is the first analysis of this type for the country. Based on the three dimensions of the concept, we will evaluate the level of universal coverage achieved, and we will assess the effects from the measures in this part of the health and social system in the last 10 years, *inter alia*, those of the project "Health Insurance for All", as one of the main measures.

Namely, this study will present for the first time estimates and analyses in the part of:

- Identification of persons without health insurance in the Republic of Macedonia;
- Comparative analysis of the number of persons living below the poverty line with persons who have health insurance as "poor";
- Calculation of the health insurance contribution and expenses of the insured persons in the health system per categories of insured persons;
- Simulation of the structure of out-of-pocket expenditures, i.e. identification of the highest risks for the population in out-of-pocket expenditures;
- Calculation of the co-insurance level and analysis of the total exemptions in the health system;
- Calculation of the indicators for the impact of health expenditure on the financial situation of households (extent of the so-called "catastrophic health expenditure").

The study should provide specific conclusions related to each dimension of the universal health insurance in Macedonia, with a particular review of the trend and structure of out-of-pocket payments, but also recommendations to improve the system's efficiency.

## 2. Analysis of the situation of universal insurance in Macedonia

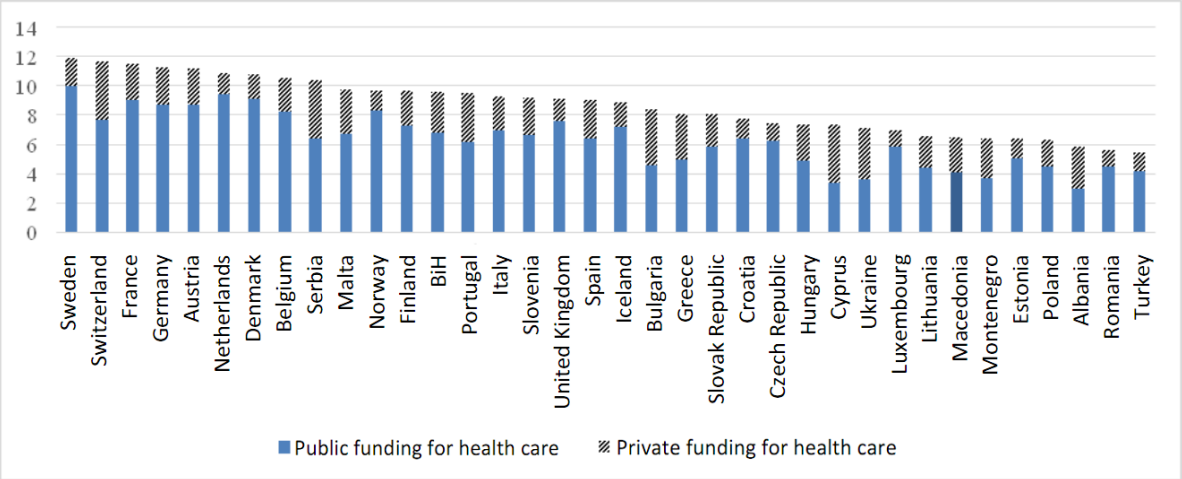
The Macedonian health financing system, as the majority of systems around the world, is a combination of characteristics from the popular health financing models. The system's origin, as in all countries with socialist system in the past, is from the Semashko model present in the Yugoslav health system. In 2000, the system was reformed by implementing the Bismarck model of health insurance, the characteristics of which are still prevalent in the system today. Therefore, the right to health insurance in this system is based on a deducted part of the individuals' income in the form of contribution, which they pay in the single health insurance fund.

The system of compulsory health insurance introduced in this manner is prescribed in the Health Insurance Law, the principles of which include comprehensiveness, solidarity, equality and effective use of funds. This means that the system strives towards an increasingly greater coverage of the population, where all pay an equal percentage of their income or as much as they could afford, and have an equal right to use services based on their needs. At the same time, all factors are obliged to take care of the health care denar and to use it in the most effective way possible. The Law also prescribes that the Budget of the Republic of Macedonia shall determine and pay a transfer to the Health Insurance Fund for financing the majority of services, or the majority of the population's needs for services, than the funds collected in the form of contributions. As of 2014 until 2017, the Budget of RM has not envisaged or paid such transfer to the Health Insurance Fund, i.e. health services purchased by the Fund have for several years been financed exclusively by funds received on the basis of paid contributions.

## Health expenditure in Macedonia, compared to the EU countries (public and private)

In the last 20 years, Macedonia allocates six to 10 percent of GDP as total funds for health care. In 2014, as the last available year for internationally comparable data, Macedonia allocated 6.5 percent of GDP for health care. This percentage is a modest amount compared to the European countries, and a similar amount of funds intended for health care from countries in the region is also seen in Montenegro.

*Figure 4 Total funds for health care as a percentage of GDP, 2014*




*Source: WHO Global Health Expenditure Database*

Although the total amount of funds is an important indicator, from the aspect of financial protection, the structure of funds in the health system is even more significant. As also seen in the previous chart, the structure in the countries concerning the share of public sources of funding and the share of private sources of funding differs; namely, it ranges from 87 percent for the share of public sources of funding in the Netherlands to 55 percent for private sources of funding in Cyprus.

In the analysis of indicators for health care funding published by international organisations, it should be noted that due to the absence of national health care accounts in Macedonia, they have be taken with some reservation, and this particularly applies to out-of-pocket health expenditures. Namely, the research led to the conclusion that the estimates used for private funding, from the database of WHO, are based on the household consumption survey by the SSO, or data about average household health expenditures and the total number of households. The survey, unlike the practice of other countries, does not include further analysis of the health category, which additionally increases the unreliability of this data. Hence, it is evident that data vary from year to year, depending on the answers provided by the household sample represented in the survey.

In Macedonia, the structure is predominantly comprised of public funding for health care. Despite the annual oscillations mentioned above, it is evident that after 2005, in a

period of around 10 years, the share of public funding is continuously increasing compared to the share of private funding in the structure of total health care funds. Thus, by 2013, public funding increased by 10 percentage points, while private funding decreased by the same percentage (Milevska Kostova N., et al., 2017). According to the estimates made for private funding in 2016, they amount to 13.1 billion denars or 34.2 percent of the total health care funds. Health care funds from external sources are in a continuous decline, which is a normal phenomenon with the development of the system and of the country.

*Table 1 Structure of health care funds per years*

| | 1995 | 2000 | 2005 | 2010 | 2013 | 2016* |
|---|---|---|---|---|---|---|
| External funding sources as a % of the total health expenditure | 1.45 | 2.81 | 1.64 | 0.71 | 0.31 | 0.08 |
| Public funding for health care as a % of the total health expenditure | 58.10 | 54.89 | 60.27 | 62.51 | 69.01 | 65.70 |
| Private payments as a % of the total health expenditure | 40.45 | 42.30 | 38.09 | 36.78 | 30.68 | 34.22 |

*Source: WHO Global Health Expenditure Database*
**The data for 2016 are estimates of the authors based on the methodology used by WHO, and information available from HIFM, SSO, OECD, UNECE*

Previous analyses show that, unlike the prevalent number of other countries, both developed and undeveloped, where out-of-pocket expenditures grow in relative aspects, in Macedonia, out-of-pocket payments are quite stable, with a downward trend, which is considered a success for a moderately developed country in protecting the population from impoverishment.

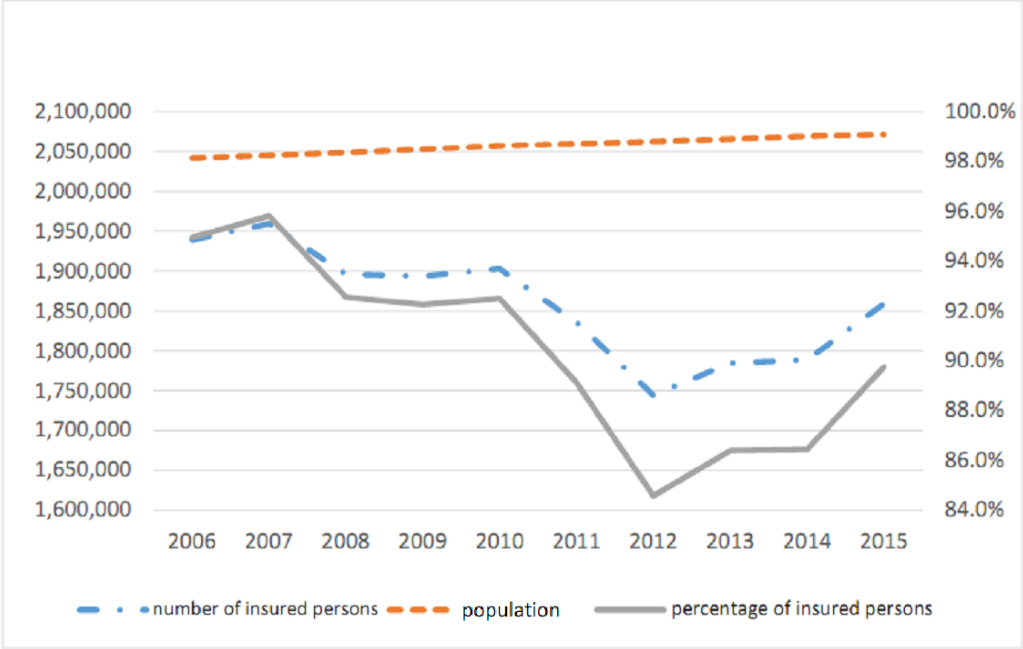
### Dimension 1: Breadth - who is insured?

The number of insured persons in Macedonia ranges from 1.74 million to 1.96 million or, in terms of the estimated population number, from 85 percent to 96 percent. Such percentage of population coverage, compared to other countries with social health insurance systems, is very high. This percentage in comparable countries ranges from 40 to 55 in Albania, 87 in Bulgaria, 94 in Estonia, to 97 in Croatia and 100 in Slovenia and in some former Soviet Union countries (Josef K, et al.2010).

However, due to the oscillations indicated, we could comment with greater reliability the period after the establishment of an IT-system in HIFM and the connection with other institutions as of 2012 onwards. In the previous years, as indicated in the annual reports of HIFM, in several occasions, the database of insured persons was being updated and that caused the number of insured persons to decline in both absolute

and relative amount. In addition, these activities coincide with the introduction of the "insurance for all" measure, which from the aspect of health insurance coverage makes the analysis more complex.

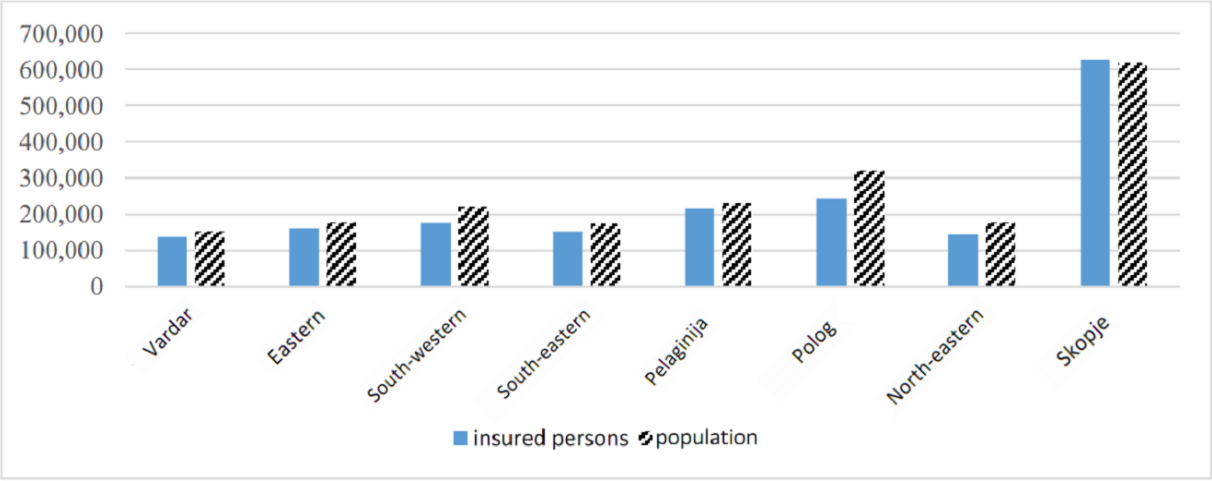
*Figure 5 Number of insured persons and percentage of population coverage*




*Source: HIFM, SSO*

An additional factor to be taken into consideration when analysing health insurance coverage of the population is the "accuracy" of population estimates, which for the needs of this analysis were taken from the State Statistical Office.
The unreliability of data about the population estimates is also indicated by data on the age and regional structure of the population.

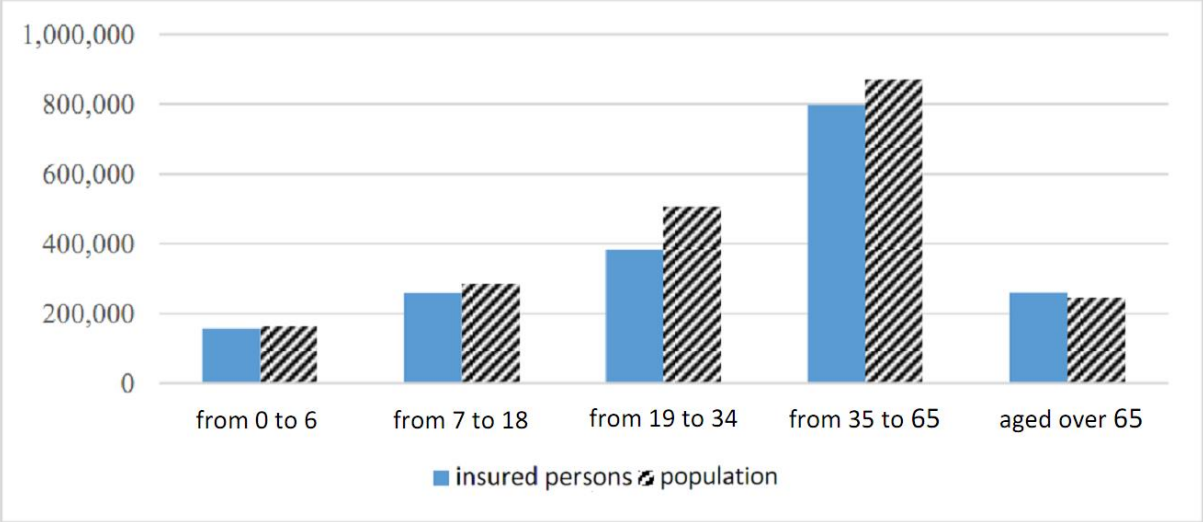
*Figure 6 Insured persons and population per regions in 2015*




*Source: HIFM, SSO*

Namely, in comparing the number of insured persons and population estimates there are differences on regional level; i.e. in the Skopje region there are 1.5 percent more insured persons in terms of the population, while the greatest negative difference is seen in the Polog region where the number of insured persons is lower for notable 23.5 percent compared to the estimated population number.

*Figure 7 Insured persons and population per age in 2015*




*Source: HIFM, SSO*

But, a more important fact for the population estimate is the age group comparison. Namely, in the zero to six years age group, we have the smallest difference because of the birth rate accuracy when making the estimates. There is a difference of around 10 percent in the age groups from seven to 18 years and from 35 to 65 years; while the difference in the group from 19 to 34 years is the highest, 24 percent. However, the difference that particularly brings into question the population estimates is the category of people aged over 65 years, where the number of individuals with health insurance is 6.5 percent higher than the estimated population in this age group.

If some explanation can be found for the previous differences, e.g. there are more insured persons in Skopje than residents due to the daily commutes of people from surrounding towns who work in Skopje, or a failure to update the place of residence, or a failure to update the situation with the emigrants which causes a great difference in the ratio between insured persons and the population in some regions where, generally, the population goes to work abroad (e.g. Tetovo, Gostivar, Kichevo, Makedonski Brod, etc.), the last difference, however, where there are more insured persons aged over 65 than residents in Macedonia aged over 65 is an absolute proof that the population estimate does not reflect the state of play with the population in Macedonia).

Despite these issues in the analysis of the number of insured persons, vis-à-vis the estimated number of population, as authors of this study, nevertheless, we consider that regarding the breadth, the Republic of Macedonia has ensured almost 100 percent of health insurance coverage of its population living in Macedonia.

From the analysis of legislation, according to which each citizen of the Republic of Macedonia can have health insurance, and from civil society conclusions on the field, we could identify four groups of people lacking health insurance in the country:

- Individuals employed in international organisations who have international private health insurance. (Although these individuals are outside of the compulsory health insurance system, they have, however, health insurance, and for the purpose of this analysis we consider them as included in the system);
- Individuals without documents (identity cards) who, according to the estimates of MLSP, are around 500 persons. (These are the only people in Macedonia who at the moment do not have health insurance because they lack identity cards or certificates of citizenship, and who are marginalised - the most destitute families in the country, and the country has to find a way to include these people in the health insurance system);
- Individuals who do not live in the country and have not been recorded in the health insurance system. (These are individuals who although not updated in the population data are not, however, insured in Macedonia because they neither live nor work in Macedonia, and for the purpose of this analysis, we exclude them from the population number);
- Individuals living in Macedonia, who do not have formal employment, and as they do not need health services at the moment, they are not registered in the Fund as insured persons. However, these individuals know their insurance rights, i.e. that in the moment they need health services, they could immediately register in the Fund and use the services covered by the Fund that very day. Thus, during the short validity of the obligation to pay contributions for fees received from freelance work in the second quarter of 2015, around 3,500 persons obtained insurance on this basis. (For the needs of this project, we believe that these individuals are not a problem in the universal coverage system in Macedonia, because the system provides them with free health care for emergencies even if they are not insured; the system would immediately provide health insurance on the first day of registration in the Fund.)

**Analysis of the effects from the project "Health Insurance for All"**

As part of the initiative adopted within the World Health Assembly for promoting health financing and universal health coverage, in 2009, the legislation in the Republic of Macedonia was amended to ensure the possibility for all citizens to have a basis to obtain health insurance.

This measure also introduced characteristics of the Beveridge model into the system. According to this measure, the country provides funds from the Budget for health care contribution for that portion of the population that was previously without health insurance because they could not afford such insurance financially. This method allows further expanding of the population coverage and provides each citizen with a basis for

obtaining health insurance. With the additional regulation of the legislative framework in 2011 by defining a limit of the income that the persons earned, the measure is directed towards individuals with low-income, and at the same time prevents the system abuse from overspill of other categories of insured persons. This limit of 132 thousands per year, with the adoption of the Minimum Wage Law in 2012, was reformulated in the annual amount of the minimum wage in the country.

With the adoption of this measure, all individuals who obtained the right to health insurance on the newly defined basis were required to register / apply in the HIFM once a year by submitting a declaration of earned income in the past year, in order to establish that they meet the maximum annual income requirement. As of 2015, this obligation was revoked (what remains is the obligation of official communication and verification of the families insured on this basis in the Fund with the PRO's database concerning the tax returns submitted and their amount at a family level). The obligation to register in the Fund applies only to new persons, who were previously not included in this category, and to those whose earned income was changed, higher or lower than the defined limit.

According to the figures of HIFM, the number of individuals-holders in this category ranges from 193 thousand to 234 thousand persons, depending on the years when the compulsory annual registration existed. With the revocation of the obligation for annual registration, the number was stabilised to around 230 thousand holders, or in total with members to around 457 thousand persons.

*Table 2 Fluctuation of the insured persons covered by the project "Health Insurance for All"*

| | holders | members | total | % of the total number of insured persons |
|---|---|---|---|---|
| Sept.2011 | 193,144 | 224,588 | 417,732 | 23% |
| Dec. 2011 | 216,965 | 247,483 | 464,448 | 25% |
| Jun. 2012 | 197,073 | 233,779 | 430,852 | 24% |
| Dec. 2012 | 223,470 | 241,083 | 464,553 | 27% |
| Jun. 2013 | 202,122 | 230,157 | 432,279 | 25% |
| Dec. 2013 | 230,677 | 242,306 | 472,983 | 27% |
| Jun. 2014 | 203,194 | 226,110 | 429,304 | 24% |
| Dec. 2014 | 221,222 | 231,111 | 452,333 | 25% |
| Dec. 2015 | 229,733 | 227,209 | 456,942 | 25% |
| Dec. 2016 | 234,410 | 223,779 | 458,189 | 24% |

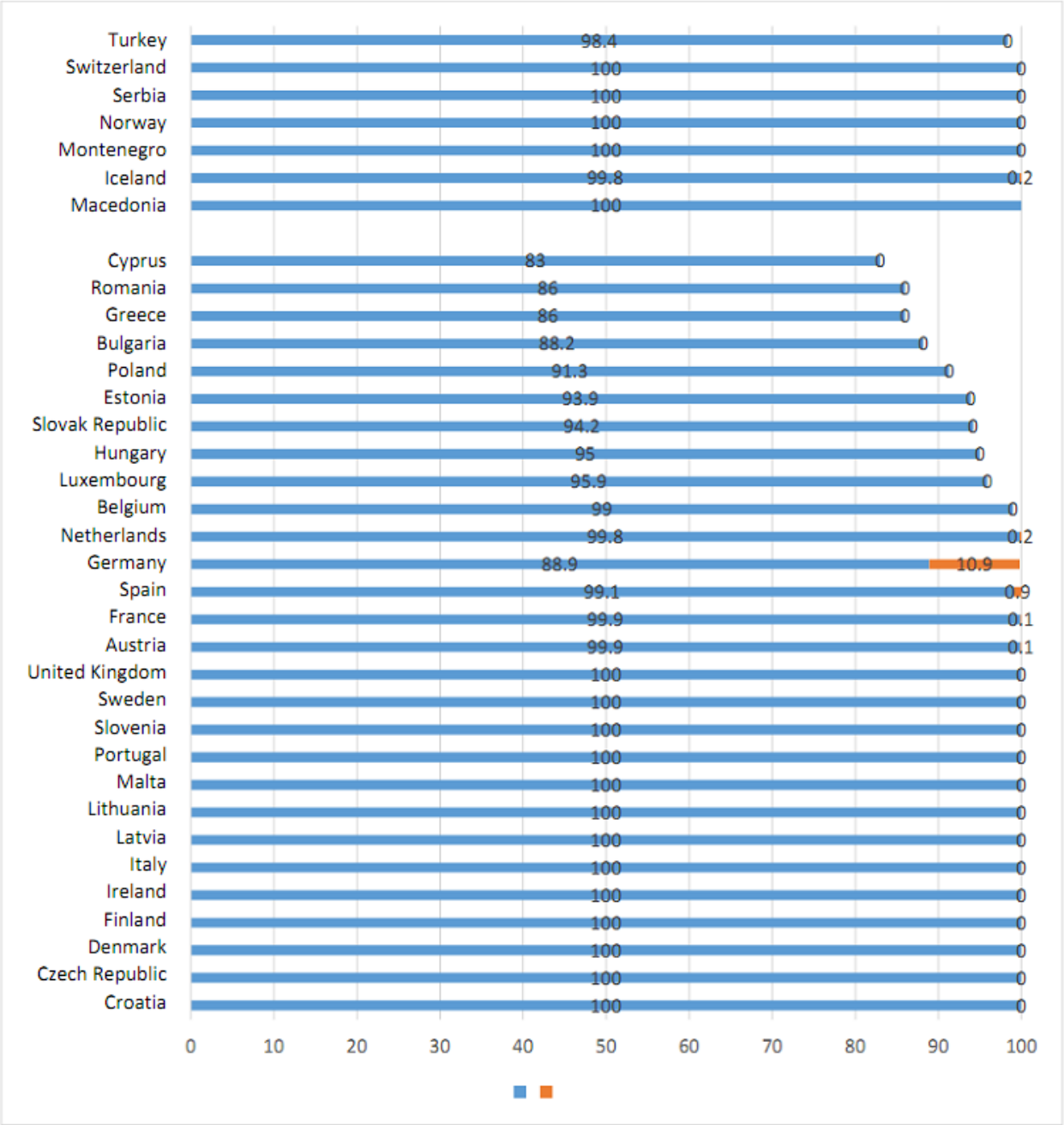
*Source: HIFM*

As mentioned, this measure has a specific social nature, namely, its focus is to provide health insurance to persons without income or with low income. Given that a considerable number of individuals use this basis for the so-called free health insurance (25 percent of the population in Macedonia), with this analysis we want to answer the following questions:

1. **Did the project achieve the expected results?**

Considering that this project included in the health insurance system those individuals who previously could not afford the contribution costs, and given that Macedonia with this measure achieved almost 100 percent health insurance coverage of its population, the project definitely achieved the expected results. In fact, this was also confirmed by OECD in the Health at a Glance 2016 Report, where Macedonia was placed in the group of countries that had established a system for 100 percent universal coverage of the population.

*Figure 8 Percentage of universal health coverage*




*Source: OECD Health at a glance 2016, WHO Global Health Expenditure Database*

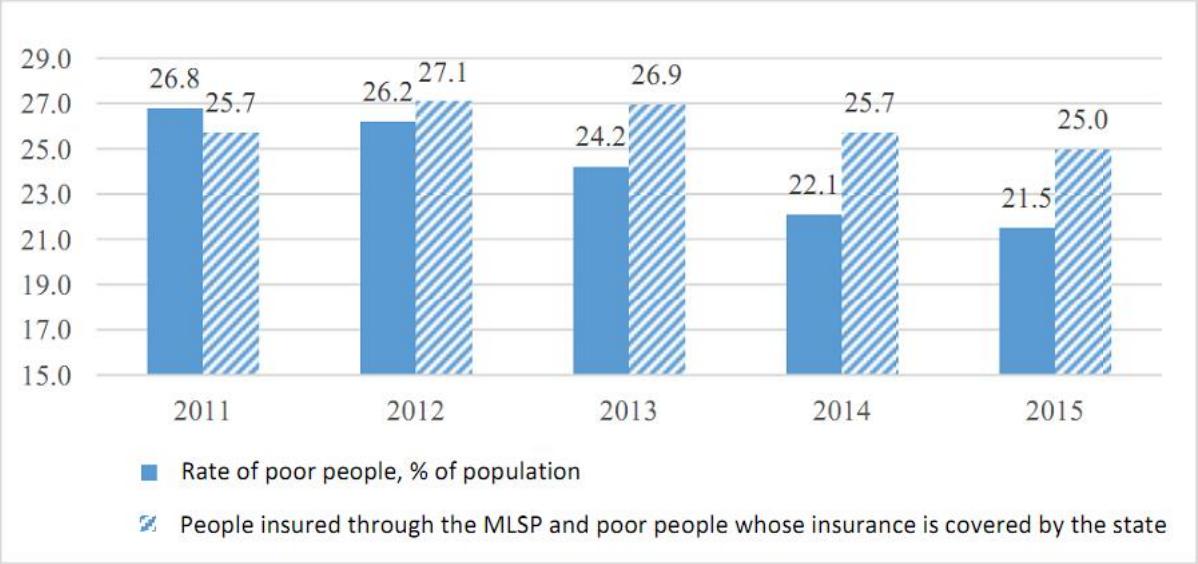
2. **Is the number of persons insured on this basis commensurate with the number of people living below the poverty line in Macedonia?**

We raise this question because the purpose of the project is to cover those people in Macedonia who are below the poverty line, and for whom the country pays health care contributions. Whereas those individuals above the poverty line are assumed to earn enough to pay contributions in the health insurance system.

To answer this question, we believe it is necessary to compare the poverty indicators in the country with the coverage of poor people by the measure as one of the ways for its evaluation.

The chart below provides a comparison between the poverty rate from the Income and Living Conditions Survey conducted by the State Statistical Office in the period 2011-2015 regarding the persons insured through the measure and persons insured through the Ministry of Labour and Social Policy (social welfare recipients etc.). According to the chart, as of 2012 the number of persons with health insurance as socially vulnerable groups is higher compared to the poor population in the country. Although the number of persons in both categories is decreasing, the difference between them is increasing; thus in 2015, the difference between the two categories was 3.5 percentage points.

*Figure 9 Poverty rate and persons insured through the MLSP and MH, per years*

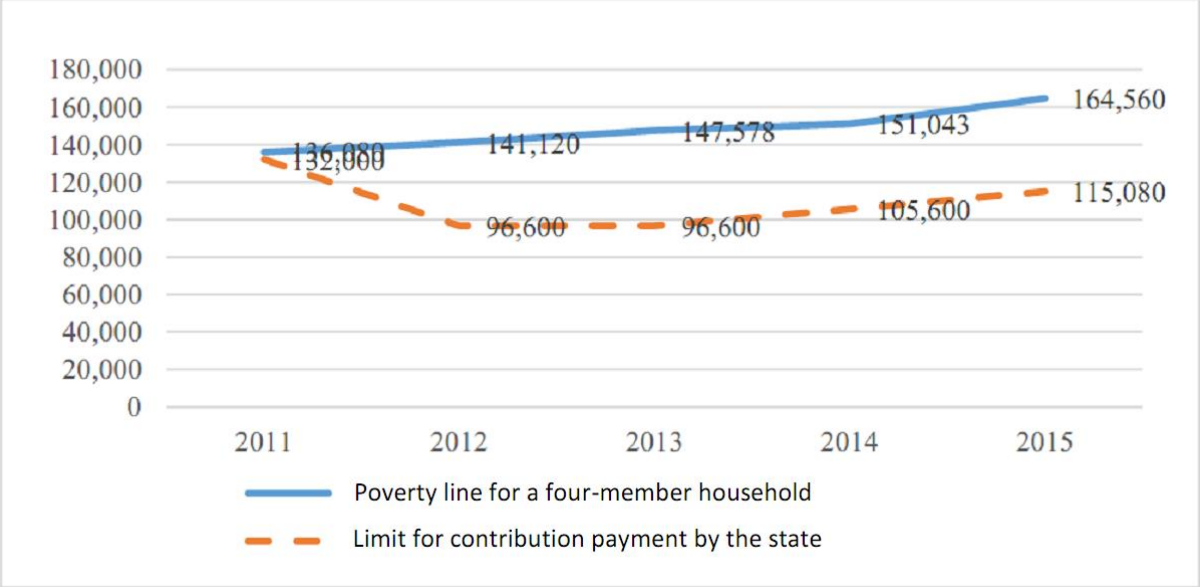



*Source: HIFM, SSO*

The logical reason behind this situation could be the lower poverty line defined by SSO compared to the limit laid down by law for one person with his or her family to be insured at the expense of the state.

To confirm this thesis, we tested it in a chart presenting the financial threshold on an annual level under which a four-member family is defined as poor regarding the annual financial income and in which case that person and his or her family could be insured at the expense of the state.

*Figure 10 Poverty line and limit for contribution payment by the state, per years*




*Source: HIFM, SSO*

The income line for defining the poverty line and income limit for insurance of a family at the expense of the state coincide in the first year of the introduction of the "Health Insurance for All" project, but then the limit is determined on the level of annual amount of minimum wage, which is a lower level than the poverty line. This leads to the opposite conclusion from what was mentioned regarding the number of poor people vis-à-vis the number of persons insured as poor, i.e. although the income limit of poor people for health care contributions paid by the state is lower than the poverty line, their number is higher compared to the number of poor people in the country.

The answer to the question posed as to whether the number of persons insured on this basis is commensurate with the number of people living below the poverty line is negative because the number of persons insured as poor (whose contributions are paid by the state) is higher than the number of poor people in Macedonia. This indicates to the need of a detailed analysis relative to the project arrangement and its modification so as to obtain greater effectiveness of the funds used for this purpose, or to reduce the number of people insured on this basis, because they have income exceeding the poverty line.

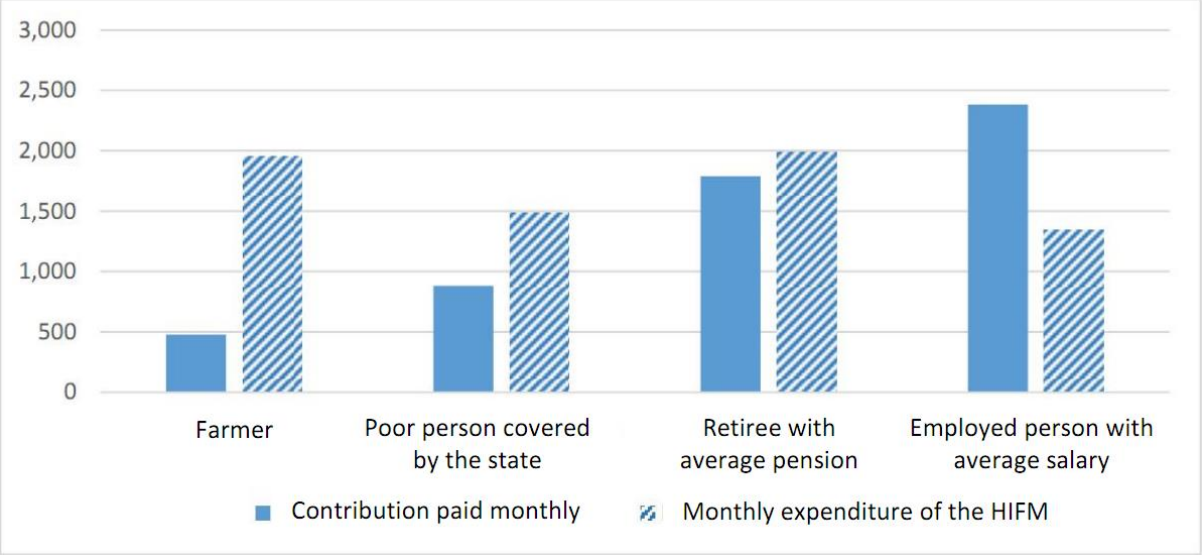
3. **Are the financial costs of this project (contributions paid) commensurate with the actual costs of these insured persons?**

To answer this question we need to compare the data about the amount of paid contributions by the Ministry of Health with the expenses for health services incurred by the insured persons. Given that always, statistically, poor people also have more serious health issues, it is assumed that the average monthly costs for health services for all

insured persons would be lower than the average monthly costs for services for this category of people.

Based on the available and received data for health expenditure incurred for health insurance, for the first time in the country, we estimated the costs for the four largest groups of insured persons covering 97 percent of all insured persons. In the calculation we used data from HIFM (annual reports, reports on insured persons, and data about health expenditure), SSO (population estimates, communications on average salary paid), PDIFM, legislation and other sources. The calculation refers to 2015, thus the largest portion of data relates to that year, but taking into account the availability, some older data was used and adjusted in the calculation. Given that costs in the health system generally depend on the sex and age, the expenditure calculation for each category reflects their demographic structure. At the same time, due to the principle of holders and members in the insurance, the cost is adjusted at the level of insurance holder; or to compared it with the contribution payment (which is done by the holder), the cost reflects the expenses of the holder with his or her members (or of the entire family).

*Figure 11 Comparison of the paid and spent amount in health insurance (denars)*




*Source: Estimate by the authors with data from HIFM, SSO and PDIFM*

It can be concluded from the figure that contributions paid on behalf of the groups of insured persons do not correspond to the costs incurred by the Health Insurance Fund for health care of these insured persons. If the category of poor people insured by the state is shown on a total annual level, then the total health expenditure for it would be 4,190 million denars, which is a 72 percent higher amount than the funds allocated by the state for this purpose (2,440 million denars). Or seen through the prism of public and private spending, if these persons did not have health insurance, they would have had to pay this amount out-of-pocket or, in a worse scenario, if they could not afford the costs, their health condition would deteriorate.

Therefore, accentuating the difference in the contributions and expenditures, it is proposed that the amount of the contribution rate should be redefined for this category. Namely, each category of insured persons, in accordance with the law, has a defined rate and basis for calculation of the health care contribution.

*Table 3 Rates and basis for payment of the health insurance contribution*

| Insured persons | Contribution rate | Calculation basis |
|---|---|---|
| **Actively employed persons** | 7.30% | gross salary |
| **Active farmers** | 7.30% | 20% of the average gross salary |
| **Retired persons** | 13% | pension |
| **Unemployed persons (without insurance)** | 5.40% | 50% of the average salary |

*Source: Annual Report of the HIFM for 2016*

Based on the analyses performed, it can be concluded that despite the high costs for this group of insured persons, the payments by the Ministry of Health are much lower. In fact, the solidarity is very evident here because individuals making higher payments for health care (usually employed persons, retirees etc.) are in a way subsidising the Budget of the Republic of Macedonia, which pays the health care contributions on behalf of the most destitute people in the country, but with unrealistic rates, i.e. lower than what is needed to cover the expenditures for health services. However, solidarity in a given system should be aimed at enabling the richer to help the poorer and not the other way around, like in this case, where the employed persons and retirees help the Budget of the Republic of Macedonia, which pays less than what is needed for the poor category of insured persons.

### 4. What is the reason behind the continuous increase in the number of people whose health insurance is paid by the state?

As evident from Table 1, there is a continuous increase in the number of persons insured as poor whose contributions are paid by the state (the oscillations throughout the year until 2015 were explained earlier). Does this mean that the population is increasingly poorer or that the system has some weaknesses from a control aspect. Considering that the number of these individuals is continuously higher than the number of poor people, we are led to the conclusion that the number of these category of insured persons is constantly growing due to control weaknesses. We would mention here three potential weaknesses, although they were not subject to any previous analysis, and this is the first attempt to analyse the control system of this legal solution:

A) One of the reasons for this phenomenon is abuse of the system, i.e. submitting false declarations about the income level when registering in HIFM. During 2014, the Fund by comparing data with the PRO detected around 20 thousand false declarations by these individuals, which corresponds to the difference between the two categories reached in 2015 (Chart 4).

B) Until 2015, the Fund was obliged to document and submit these false declarations to the Public Prosecutor's Office for criminal liability of these individuals due to the submission of false information, and causing damage to the state budget. In 2015, the Health Insurance Law was amended and the obligation of the Fund to detect and prosecute these offences was revoked. Thus, the system loosened the control and penal policy for these persons, allowing them to continue using free health insurance without any consequences, but also encouraging others to do the same.

C) With the revocation of the annual declaration, the obligation remained that the Fund shall leave in the system the insured persons who in accordance with PRO's data at a family level submitted annual tax returns in an amount lower than the limit defined in the law. This set-up of the system assumes that all citizens in Macedonia submit the annual tax returns, even when their only income is for instance based on rents, tourism income etc., and that if someone has not submitted a tax return he or she has not earned income throughout the year, so the state provides that individual with free health insurance. This study cannot assess the extent of the validity of this assumption, but for the existing legal solution to be justified, it is necessary for the PRO to confirm that all persons who have any income in Macedonia have fully declared the income through the annual tax returns, or in practice this means that in Macedonia there is no grey or informal economy.

## Dimension 2: Depth

The Macedonian basic package of health services is defined through a negative list, namely, everything that is not defined in the 25 items under Article 10 of the Health Insurance Law is covered by health insurance. With this approach, the basic package of health services characterises the system as broadly set-up. Thus, specific services such as dental care for all persons and levels are covered by health insurance, which is not the case in other countries that have even more funds available than the Macedonian system. In addition, the process of public health modernisation introduced numerous methods and technologies, *inter alia*, such that in some more developed and more restrictive countries are not covered by compulsory health insurance.

Besides said extensions of the package through new methods and technologies in public health care, in the past period, the regulation was subject to several more amendments increasing the spectrum of services covered by the Fund. They include:

- Biomedical assisted fertilisation (in vitro) up to the fourth child;
- Possibility to receive specialist and some surgical procedures in private health care institutions;
- Laser correction of dioptre;

- New devices (diapers etc.);
- Medicines that are not on the positive list, but are purchased by hospitals upon prior approval by the Ministry of Health and the Health Insurance Fund.

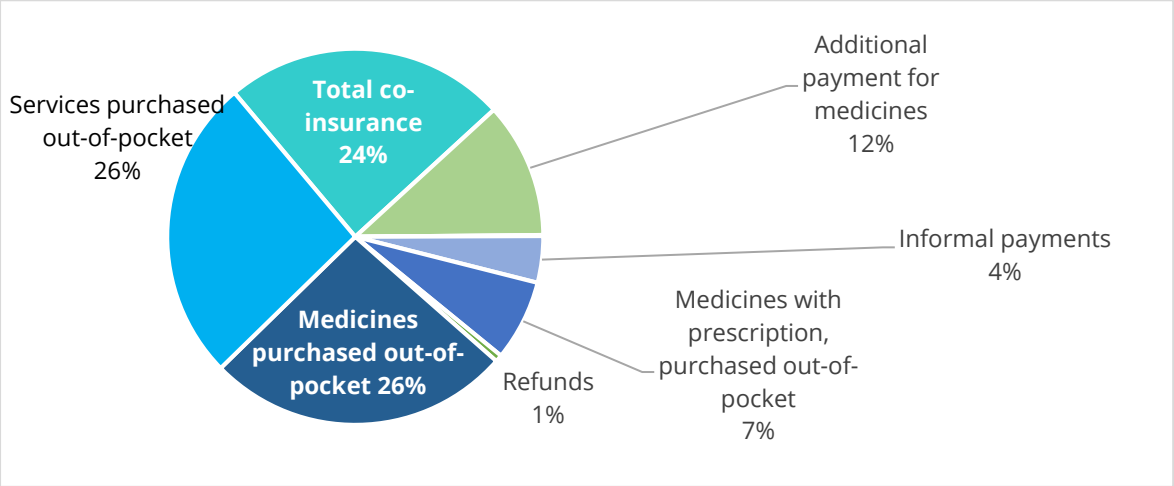
Individuals finance directly (out-of-pocket) the use of services not covered by the package, i.e. listed in Article 10 of the Law. However, even health services indicated in Article 9 (positive list) are financed out-of-pocket if they are purchased in institutions that have not signed an agreement with the Fund or outside of the procedures prescribed in the Law.

**Simulation of the structure of out-of-pocket expenditures**

The survey conducted by the SSO, unlike the practice in other countries, concerning resources used for health purposes makes no distinction of the allocation of health expenditure. Namely, this amount includes all expenses related to health in any aspect, which would mean that, besides the co-insurance, private health services and medicines, this category also includes various cosmetic and medical preparations, vitamins and supplements and other non-health expenditures.

In this study, based on specific data from the institutions, foreign studies and assumptions, we tried for the first time to make a simulation of the structure of out-of-pocket health expenditures. In this way, we could identify the greatest risks in out-of-pocket expenditures for the population, and consequently give some recommendations for overcoming the risks.

*Figure 12 Simulation of the structure of out-of-pocket expenditure in 2015*




*Source: Estimate by the authors according to data from SSO, HIFM, WHO, "My Term"*

The simulated structure of health expenditure is done with the "top-down" approach, i.e. we broke down the data about the total out-of-pocket expenditure into segments of known costs such as co-insurance, additional payment for medicines, refunds and private health insurance, and then we estimated the prescriptions realised privately, and we also included some information from international surveys or studies by international organisations (informal payments). The remainder of private funds, after

defining the previous items, was equally allocated for medicines and health services purchased privately in full.

It is important to stress that if we separate the costs on all bases related to medicines, they have a dominant role with 49 percent of the out-of-pocket health expenditures. The dominant part of medicines is expected because a large portion of this type of surveys conducted in countries with middle- and high-income-level have shown the same result.

The complex analysis in this study leads to the conclusion that in RM the medicines are the most dominant costs incurred by citizens, which they pay from their own income. This also includes medicines that are on the positive list (for which there is co-insurance and additional payment of 16 percent); medicines that are on the positive list, but the individual decides to use i.e. purchase them without going to the doctor and without a doctor's recommendation; and also to purchase and use medicines that are not on the positive list (with or without a doctor's recommendation).

Next step after this finding is to conduct the necessary, detailed analysis of the medicine consumption by MALMED (data that the institution should receive and monitor on a regular basis, and which it perhaps does not receive or analyse). The analysis is needed to show what medicines are being purchased privately by the population and to investigate the reasons behind that (whether, perhaps, these medicines are antibiotics and antidepressants that without medical recommendation increase the risk of inappropriate use or wrong diagnosis given by the individuals themselves; or these are medicines that are not on the positive list, which could be a useful data when expanding / revising the positive list; or these are privately purchased medicines that are on the positive list, but there were no quotas for them in the pharmacies and so the individuals had to pay for them out-of-pocket). Each reason may stimulate the undertaking of appropriate measures by competent institutions (educating the population on the excessive and detrimental use of medicines, increasing the medicine quotas, revising the positive list, scientific research, expert supervision of doctors concerning their recommendations outside of the medical protocols, etc.).

**Two insurance packages**

In the text above we mentioned harmonisation as a potential change in the system, or approximation of the contribution to the health expenditure for some of the categories, option that requires additional budget funds. As an alternative, and in accordance with the conclusion that Macedonia has a very broad health care package, which requires continuous financial strengthening of the system, we propose to consider the development of two health care packages, one broadly defined like until now for everyone who pays contributions in health financing (employed persons, retired persons, self-employed persons etc.), and another narrower package for persons not paying contributions, but the contributions for them are paid by the state. Thus, the unfairness in the system concerning low payments by the state will be overcome, when the proportion of expenditure in the health system for services for these individuals is

much higher. But, what is perhaps even more important it that this will stimulate those individuals trying to abuse the system by obtaining free health insurance to declare their actual family income so as to enter in the group of users of the broad health care package. This measure may also be seriously accepted as a measure for reducing grey economy in the country by motivating people to declare all their income.

## Dimension 3: Height

Besides setting apart a contribution from their income, when using health services, people also participate in the health service price. Main goal of cost-sharing, like in other types of insurance, is to serve as a control mechanism of the insurer, i.e. to control the motive for the increased use of health services, or the moral hazard, and thus to be a source of income in the system. On the part of the insured person, this cost increases his or her financial burden. Macedonia applies the system of co-insurance, i.e. a defined fixed amount, which is related to the amount of the health service price.

More measures have been taken in the cost-sharing, or the payment of co-insurance. The co-insurance rate in the Law is limited to 20 percent of the service value although, in practice, the co-insurance is much lower than this limit.

In Macedonia there are two types of limitation regarding the co-insurance rate: a maximum amount that could be paid for a single service and that is 6,000 denars; and a maximum amount for co-insurance that could be paid by one person annually. The annual limit is 70 percent of the average salary, but it is defined at a lower level of 40 percent and 20 percent of the average salary for specific age and social categories.

Apart from these, the system also includes additional exemptions from co-insurance payment, which are based on the social or health status of the population, such as blood donors and organ donors, different social categories, retirees with low pension, different rare and communicable diseases etc.

An important change in terms of co-insurance, particularly for financial protection of the population, is the limit of co-insurance rate for treatment abroad. Namely, before 2013, individuals referred for treatment abroad had to cover 20 percent of the total costs, which considering that referrals for this type of treatments are issued for the most complex conditions means that in some cases they had to pay even 50 thousand euro. The limit of 12 thousand denars provided an important financial protection for these cases (families) when using health services.

### Co-insurance as a share of the out-of-pocket health expenditures

One part of the structure of out-of-pocket health expenditures for which there are relatively accurate data is the share in service price or co-insurance.

The co-insurance rate in Macedonia is set at a maximum 20 percent of the service value, whereas the bylaws of the Fund define a scale calculating the co-insurance rate depending on the service value. If we compare the total annual co-insurance amount presented in the previous chart in relation to the value of health services performed, the average co-insurance in Macedonia is at a level of 5.6 percent of service value. This percentage is almost four times lower than the legal maximum, which is due to the vast

number of exemptions from co-insurance payment and low rates of the co-insurance defined per service.

With a view to explaining the reasons for such a low co-insurance level in the system, we made an analysis of the number of persons exempted from co-insurance payment. Thus, using different laws, bylaws and state programmes, we identified the number of persons on all grounds and we grouped those who are exempted from co-insurance payment for all or some of the services. Therefore, 42.5 thousand persons per year are exempted from co-insurance payment for health services (with the exception of medicines, orthopaedic aids and treatment abroad), while 160 thousand persons are exempted from a substantial portion of health services such as retired persons with low pension for all inpatient services and pregnant women, women who have recently given birth and infants for birth-related services. Apart from these exemptions, the system also exempts the co-insurance payment for various specific services covering over 100 thousand persons of the population.

*Table 5 Exemptions from co-insurance in 2017*

| **Persons exempted from co-insurance payment for most of the services** | **42,500** |
|---|---|
| Blood donors and organ donors | 30,000 |
| Social categories according to the HIL | 9,000 |
| Persons who during the year reached the defined limit (70, 40 or 20% of average salary) | 3,500 |

| **Persons exempted from co-insurance payment for multiple services** | **160,000** |
|---|---|
| Inpatient care for retired persons with pension below the average | 12,000 |
| Women who have recently given birth and infants up to one year of age | 40,000 |

| **Persons exempted from co-insurance payment for specific services** | **100,770** |
|---|---|
| Diabetes | 39,500 |
| Growth hormone | 55 |
| Haemophilia | 315 |
| Sports medicine | 5,000 |
| PSA-testing of men aged 50-55 and 45-50 with a family risk | 20,000 |
| Cytology-based screening for PAP-testing | 20,000 |
| Treatment in the mental health centres | 700 |
| Dialysis patients | 1,500 |
| Specific diseases | 5,000 |
| Malignant diseases | 7,300 |
| In vitro | 1,400 |

*Source: Adjusted from HIFM, HIL, Programmes of the Ministry of Health*

According to the table, over 300 thousand persons are exempted from co-insurance payment on different grounds. If this number of persons is compared to 1,358,799 patients who sought medical assistance at least once in 2016 ("My Term"), it turns out that 22.3 percent of patients were exempted from co-insurance payment for the health service received.

It can be concluded from the average co-insurance presented and the percentage of persons exempted from co-insurance payment that in this dimension of the universal health coverage the state removed all financial barriers for health care use. In this context, we believe that this level of co-insurance and numerous exemptions lead to another problem, which concerns the purpose of having a share in the insurance "damage", i.e. the extent to which this can be considered as a control mechanism for excessive use of the system, which would have an adverse effect on the financial sustainability of the system, which has only modest funds available in any case. Therefore, we believe that a revision is needed, primarily for specific exemptions, which do not play an important role in improving the access to health services, such as the exemption for retired persons with a below average pension, who even previously were subject to the maximum annual co-insurance of 40 percent of the average net salary, or if they have monthly income of less than 60 percent from the average net salary, this limit is on the lower level of 20 percent.

Without the intention to underestimate the effects of some measures in the co-insurance practice, such as the limit for treatment abroad mentioned above, and the exemption for women who have recently given birth and infants, which has produced effects in the improvement of health indicators, particularly in the Roma population, we believe that policy-makers have to be careful with the additional changes in the co-insurance rate given the already reached high level of exemptions and low co-insurance.

**Other indicators for access to health services**

The Income and Living Conditions Survey, based on the respondents' answers, provides indicators for the health system affordability. The indicators include percentage of people who needed health services during the year, but did not seek medical assistance, and a division of the reasons for unmet health service needs. The indicator for financial barriers of the system from these parameters is the percentage of unmet health service needs because the respondents could not afford them.

According to the SSO's survey of 2015, 2.1 percent reported they had an unmet health need due to financial reasons, which is almost identical to the EU level of this answer. In 2015, this indicator in the lower income groups is minimally higher than the European average. Compared to 2010, when this survey was conducted in Macedonia for the first time, the country indicators note a significant progress, namely in 2015 they reached the European level.

*Table 4 Unmet health needs that people could not afford, as a % of the income quintiles*

| | Quintile | | | | | |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | Total |
| **Macedonia** | | | | | | |
| **2010** | 20.2 | 13.6 | 7.8 | 6.4 | 2.3 | 10.1 |
| **2015** | 4.7 | 3.7 | 1.6 | 0.5 | 0.1 | 2.1 |
| **Croatia (2015)** | 2.6 | 0.7 | 0.4 | 0.3 | | 0.8 |
| **Serbia (2015)** | 8.5 | 5.2 | 3.2 | 1.1 | 0.9 | 3.8 |
| **EU28 (2015)** | 4.1 | 2.6 | 1.7 | 1.1 | 0.5 | 2.0 |

*Source: Eurostat*

Compared to the countries in the region, Croatia's total indicator of 0.8 percent is significantly higher than Macedonia's indicator and thus higher than the European average; while Serbia with 3.8 percent notes a lower level of the population's financial protection when using health services.

### Impact of the out-of-pocket health expenditure on the financial situation of households

The most important indicators about the level of a population's financial protection when using health care are those measuring out-of-pocket expenditure in relation to households' available funds. Such main indicator is the level of "catastrophic health expenditure" in the country. In this context, as catastrophic health expenditures are considered those that push households to reduce the consumption of basic necessities to cover health expenditure.

These indicators are usually estimated by data from the household consumption surveys. In Macedonia, until now, no estimate or analysis has been made for this type of indicators, and they are not included in the SSO's publication arising from this survey. In addition, due to this institution's lack of openness, the authors of this study were denied access to data from the survey necessary to calculate and make a more thorough analysis of such indicators for Macedonia and their fluctuation throughout the years. Consequently, a survey was conducted for the needs of this study on a sample of 1,200 households with 4,068 members in total, which included a calculation of their monthly expenditure. The survey is representative at the national level with stratification per regions and per settlement type, in accordance with the methodology applied by the SSO.

There are two basic methodologies for the threshold over which health expenditures are considered as catastrophic. The first one is applied when measuring the fulfilment of sustainable development goals and sets the threshold at 25 percent of the total household capacity to pay; whereas the second one is applied by WHO and it sets the threshold at 40 percent of non-subsistence expenditures, i.e. the remainder of household funds after food consumption. We applied both methodologies to the survey

data and the two approaches produced a similar result, namely 1.89 percent of people had health expenditure higher than 25 percent of the total household expenditure and 2.24 percent of people had health expenditures higher than 40 percent of the household's remaining resources after food consumption. Also, the analysis of these households with catastrophic health expenditure shows that most of them or 75 percent have a total consumption higher than their total income.

On the other hand, in the total number of households participating in the survey 32.5 percent of people had no health expenditure at all, and 37.3 percent had expenses lower than five percent of their total monthly expenditure. In absolute values, the average monthly health spending from this survey is 1,010 denars per household or 298 denars per person.

*Table 5 Catastrophic health expenditure per country*

| Country | more than 25% of the total expenses | more than 40% of the total expenses (net of food) |
|---|---|---|
| **Bosnia and Herzegovina** | 0.3 | 0.5 |
| **Bulgaria** | 2.1 | 2.9 |
| **Estonia** | 2.7 | 2.5 |
| **France** | 1.7 | 0.8 |
| **Georgia** | 4.8 | 5 |
| **Latvia** | 1.8 | 2.4 |
| **Moldavia** | 3.2 | 4.6 |
| **Russia** | 2.4 | 4.7 |
| **Turkey** | 0.7 | 0.4 |
| **Ukraine** | 0.3 | 1.1 |
| **Average** | 2 | 3 |
| **Macedonia** | **1.9** | **2.2** |

*Source: World Health Organization and World Bank, 2015*
*Note:* Data for Macedonia are estimates by the authors

According to the comparable data of such indicators available from other countries, namely from 10 countries of Europe and Central Asia, the indicators calculated for Macedonia, as seen in the table, are below the average.

Limiting factor when using this survey is that the estimate was based on the monthly household consumption, unlike the SSO's survey, which is conducted based on annual data. The annual analysis is more appropriate because it would eliminate household income and expenditure of seasonal nature (for instance, income of agricultural families).

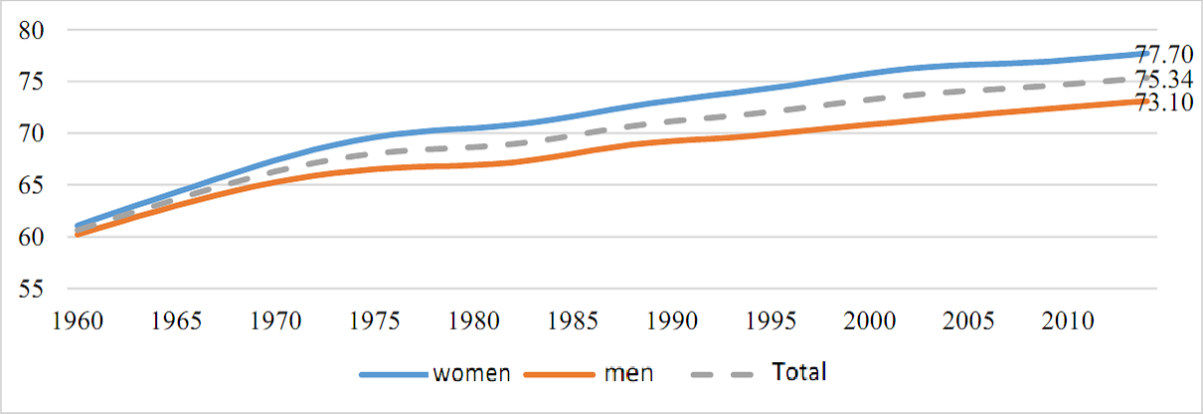
In addition, due to lack of annual data, it is not possible to estimate the second indicator for impoverishing health expenditures, which measures the share of households with health expenditures that pushed them below the poverty line in the country (calculated on an annual level). Given that the survey was structured according to the model of

SSO's survey on consumption, another limiting factor is the reservation mentioned concerning the use of health spending data, i.e. the high likelihood that the health expenditure category also includes some non-health items.

### Impact on health indicators

The chart below shows the fluctuation in life expectancy in Macedonia. It notes a trend of continuous growth, and in the analysed period, life expectancy increased from 74.4 years in 2008 to 75.3 years in 2014, or by 0.9 years in a period of six years. This life span level is an indicator similar to the European average, and according to the world ranking, the country is ranked 57 in terms of average life expectancy.

*Figure 13 Life expectancy in Macedonia*




*Source: WHO Health for All Database*

As seen in the chart, the increasing trend of life expectancy is a continuous process during the entire time frame covered in the figure, which is due to numerous factors such as measures undertaken in the country and external factors, primarily, the progress in medicine. Hence, the impact of the policy for easier access to health services and financial protection in their use cannot be shown separately neither for the growth in life expectancy nor for the indicators of population mortality and morbidity.

## 3. Conclusion and recommendations

One of the main objectives of health systems, besides keeping population healthy and providing treatment for the sick, is to protect people from the financial risk of high health expenditure.

Having regard to the elaboration and analysis of all aspects of the universal health coverage concept for the population in Macedonia, but also comparing the country to other countries at its income level and to more developed countries, it can be concluded that the system ensures a high level of financial protection for the population when using health services.

Despite the lack of accurate data for the population living in the country, it can be concluded that almost the entire population is covered by health insurance, with a minimum portion that is not covered and that requires a wider approach to find a systemic solution (translated into legislative amendments). This entire population has equal access to all rights provided in the basic health service package, which is broadly set-up with minimum limits about what is not covered by health insurance. Basic health services such as primary care and emergency care are available without any payment by patients, while for the majority of other services in the system, according to the analysis, persons' share in the use of said services is a minimum percentage of the total health service amount. In addition, the system among other rights provides many co-insurance payment exemptions.

Despite this set-up of the system aimed at ensuring high financial protection of patients in the system, the indicator for out-of-pocket health expenditures, which shows a downward trend in the last 10 years, is still on a relatively high level of 34 percent from the total health expenditure. As elaborated in the study, there is a high reservation in using this data due to the absence of national health care accounts. However, even from this uncertain number, we can conclude that one half of these expenditures is related to medicines, but also there is a large percentage of funds paid for using "private" health services, meaning services in private hospitals. If services in private hospitals are related to their business and marketing strategy aimed at the upper class and persons who do not trust the public sector, medicines although, in theory, as expected take up a large portion of out-of-pocket expenditure have to be subject to further analysis by policy-makers.

Such generous set-up of the system must also be seen through the financial prism of the system. If, on the one hand, the Macedonian system with 6.5 percent of GDP for health care has relatively modest funds available, on the other hand, we have a system offering practically everything to everyone with minimum cost-sharing. This imbalance may be one of the reasons behind the level of out-of-pocket expenditures mentioned above, and on the other hand is a risk to the financial sustainability of the health system. Namely, each expending of rights, in any of the three dimensions analysed, creates a need of additional funds, but also a need for analysing and potentially enhancing the capacities of health care institutions providing health services to insured persons, in order to fulfil the newly awarded rights and health needs of the population. If these rights are not accompanied with an adequate level of funding, on the one hand, that will bring into question the financial sustainability and, on the other hand, the staff potential available to the health system.

The health and financial authorities in the country have to seriously start analysing this challenge, whether some rights already offered by the system are justified, and to review with particular attention the proposals for new rights arising from the political programmes.

This need is also additionally accentuated by the global pressure to increase health resources. To that end, countries for several years have been intensively working on introducing HTA (Health Technology Assessment) systems through which each novelty (new medicine, technology, method etc.) will be evaluated and ranked according to the effect on continuing the life span, quality of life and price, thereby introducing the most efficient novelties in accordance with the resources available in the system.

In the segment of health expenditures' impact on households' financial situation, the Republic of Macedonia, in accordance with the catastrophic expenditure indicator, calculated for the first time (with all the limitations in the estimate), is below the average compared to other countries with similar and even higher development level, which is positive for the health system of the country.

The analysis performed relative to the population's financial protection when using health services, led to the following recommendations:

- The lack of a state census of the population is a limiting factor, not only for this study, but also for the analysis necessary for policy makers to undertake measures in this area. To that end, it is recommended to update data about the population in Macedonia by conducting a state census;
- After the new state census of the population is implemented, it is necessary to carefully compare the Fund's database of insured persons with the census data, in order to identify the persons not covered by the health insurance system and make a more detailed analysis and check the reasons why they are not in the system and if, perhaps, the system should undergo some improvements;
- The Law should define a health insurance mechanism for the persons lacking personal documents / citizenship and living in Macedonia for a longer period, who are not insured because of those reasons;
- The Republic of Macedonia through its responsible institution (SSO) should develop national health care accounts as the most reliable way for assessing out-of-pocket health expenditure and, hence, for financial protection provided by the system to the population in the use of health services;
- Revise the rate of health care contribution payment through which the Ministry of Health insures persons registered in the system as poor, who cannot afford to pay contributions;
- Make an analysis of the justification for defining two health care packages, one for those paying contributions in the Health Insurance Fund and another package for persons whose health care contribution is paid by the state or increase the contribution rate paid by the state for persons below the poverty line;
- Strengthen the control mechanisms between institutions to check whether persons using free health insurance at family level really do have lower total income than the legal limit;

- Strengthen the legal sanctions for persons detected as circumventing the system for free health insurance and financially damaging the country by hiding their income from the institutions;
- Introduce controls by the PRO for everyone failing to submit annual tax returns, and exercising the right to free health care;
- Revise some of the co-insurance exemptions not related to improving the population's access to health services, and carefully manage the policy in this part of the health system considering the risk they bring to the system's financial sustainability;
- Focus on the policy in the area of medicines causing out-of-pocket expenditures for the population, and find the reasons behind these phenomena, and also define measures to improve the situation, i.e. reduce private burden for medicines in Macedonia (namely, stimulating the promotion of medicine use without additional payment, setting up HTA systems (for introducing new therapies, increased control of prescription and issuance of medicines, etc.);
- Monitor continuously the indicators for catastrophic health expenditure, both as a trend in Macedonia and compared to other countries, but based on an annual data estimate, in order to timely signal the health policy makers if the indicators deteriorate;
- Also, calculate the indicator for impoverishing health expenditures for Macedonia and continuously monitor it, in order to get a complete insight into the impact of out-of-pocket expenditure over the households' financial situation in the country.
- To ensure a sound health system in the medium and long term, it will be necessary to make an analysis of the financial sustainability of the existing health system, which, as we mentioned in this study, provides a wide package of awarded rights with a relatively modest level of funds.

## 4. References


- Busse R., Schreyögg J., Gericke C. (2007) Analyzing changes in health financing arrangements in high-income countries: a comprehensive framework approach. *HNP Discussion Paper.* Washington, DC, World Bank.
- HIFM (2017) *Annual Report for 2016*, Health Insurance Fund of Macedonia, Skopje.
- Kutzin, J., Cashin, C, and Jakab, M. (2010) *Implementing Health Financing Reform: Lessons from countries in transition*. The European Observatory on Health Systems and Policies, World Health Organization Regional Office for Europe, Copenhagen.
- Milevska Kostova, N., Chichevalieva, S., Ponce, NA., van Ginneken, E. and Winkelmann, J. (2017) *The former Yugoslav Republic of Macedonia: Health system review.* Health Systems in Transition. WHO Copenhagen.
- OECD/EU (2016) *Health at a Glance: Europe 2016: State of Health in the EU Cycle*. OECD Publishing, Paris.
- Thomson, S., Evetovits, T., Cylus, J. and Jakab, M. (2016) *Monitoring financial protection to assess progress towards universal health coverage in Europe*. Public Health Panorama 2(3), p. 249-400.
- World Health Organization (2010) *The world health report 2010, Health Systems Financing: The path to universal coverage*. WHO Geneva.
- World Health Organization (2013) *The world health report 2013: research for universal health coverage*. WHO Geneva.
- World Health Organization (2014) *Making fair choices on the path to universal health coverage*. Final report of the WHO Consultative Group on Equity and Universal Health Coverage. WHO Geneva.
- World Health Organization and World Bank (2015) *Tracking universal health coverage: first global monitoring report*. WHO Geneva.


FISCAST
Fiscal Accountability, Sustainability and Transparency in Macedonia
FINANCE THINK
OUT OF THE BOX
Funded by
UK Government