

# Development Prospects of Health and Reform of the Fiscal System in Bosnia and Herzegovina

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## PROFESSIONAL PAPER

### SUMMARY

The functions of the health system, according to the key objectives and relationships within the sub-systems that are available to the policy makers and managers in the Health Care system in Bosnia and Herzegovina – B&H, have been elaborated in detail, with the analytical overview of relevant indicators, thus confirming the limitations of the health promotion in B&H. The ability to overcome the expressed problems is in the startup of process for structural adjustment of the health sector, reform of the health care system and its financing. The reform in health system implies fundamental changes that need to take place, in B&H, as a state in health policy and institutions in the health care system, in order to improve the functioning of health systems with the aim of ensuring better health of the population. Reform implies the existence of documents with clearly formulated health policy objectives, for which the state stands, and for which a consensus was reached on the national level with all key actors in the political structure: public promotion of the basic principles for carrying out the reform, its implementation within a reasonable time frame, the corresponding effects for providers and customer satisfaction, as well as improving health services' efficacy (i.e. micro and macro) and the quality of healthcare. In this article, we elaborated the criteria for the classification of health systems, whereby the scientifically-based and empirical analysis is conducted on the health system in B&H and elaborated the key levers of the system. Leveraged organizational arrangements relating to the economic and political environment, organization and management functions, in connection with the services of finance, funds, customers and service providers, from which it follows the framework of state legislation related to health policy and health institutions at the state level are responsible for finance, planning, the organization, payment, regulation and conduct. If we start from the administrative criteria for the classification of "health sub-systems" in B&H, it is difficult to fit them in a pluralistic, decentralized or monistic, because in the system for each organization, there should be health policy at the state level, which is in the most countries represents the Ministry of Health.

**Key words:** Health Insurance Fund of the Tuzla Canton. Services of finance, payment of health services.

Department of Health, Ministry of Civil Affairs, should replace the current lack of health policy at the state level and take a coordinating role in the ongoing reforms at the entity level and state. Without going into the essence of the concept of the current decentralized organization of health care, the establishment of the Ministry of Health as the responsible institution for the unique health policy is a key prerequisite for the successful implementation of reforms initiated at entity and state level and aggregation of the entity in the national strategy.

Funding and resource allocation is a lever of the health system, which refers to the collection, gathering and allocation of resources, as well as mechanisms for payment of health providers as analyzed in relation to the subject of research.

The global development objective of the strategies adopted at the entity level which should be achieved by finance reform is "to establish a modern, rational, fair, efficient and sustainable financing of health care adapted to the needs of the population and economic capabilities of the entity, which provides universal coverage of solidarity."

In this sense, we should bear in mind one of the goals of health policy related to macro efficacy which means that expenditures for health care should take place from the national income, but not below 5%. Using scientific methods of analysis and synthesis, we investigated the financing of health care which is done via thirteen health insurance funds. The system of social health insurance–Bismarck–is applied in the administrative units in the case of research on the principles elaborated in detail.

According to the available sources, B&H is located at 97th place, according to the criterion of GDP per capita of US \$6.035, while Luxembourg holds the first place with US \$69.8 (as measured using parity of buying capacity in the range of 181 IMF member countries) and according to IMF data for 2005.

Following the results achieved, based on research by the administrative units in the case of the study and research by years, the reform of financing in terms of sources of which are only nominally written about the means a modern system, which will consist of a mandatory and voluntary health insurance. This could solve the discrepancy between

expenditure and resources. Certainly in the area of health financing must occur radical changes in the structure of income (an increase in participation, or additional insurance, income growth of farmers, self insured, social vulnerable groups) which would stimulate effective, quality health care in conditions of limited resources.

We have proposed a model of fiscal equalization at the state level in part of contributions to and from salaries as a powerful mechanism for raising funds and which has low administrative costs. This assumption is the introduction of voluntary insurance. Establishing a new health insurance scheme also involves definition of core and additional packages of health insurance rights.

It is certain that the reform of health financing requires negotiation at all levels, but it is certain that the proposed system of fiscal equalization may contribute to the improvement of health system in B&H.

The main sources of revenue are contributions for health insurance, which in total revenues at the state level participation from 95.08%, which is about 15% higher than in neighboring countries (Slovenia, Croatia), because of inequality and high rate of contribution that is not developed in private, voluntary insurance.

Participation of non-tax revenues in total revenues of health insurance in 2006 amounted to 4.92%, which is not sufficient to cover the required rights or regardless if they are legally obliged.

Fiscal equalization of the base and the rate of contributions for mandatory health insurance in a unique way contribute to the efficiency, equity and financial protection of the system.

In earlier chapters, in detail were elaborated the bases and rates for mandatory health insurance as a uniform which can significantly improve economic conditions through the reduction of labor costs, have a stabilizing effect and encourage employment through the overall effects of improved health in B&H.

During the study was found that different rates of contributions to the health care system are ineffective and unfair, that violates the basic goals and objectives of the health system with subsystems in B&H. Possible solutions are as follows:

- Instead of different rates of contributions for mandatory health insurance to introduce a unique gross rate of 12%, on a base that makes the average gross salary of the entities.
- The application of uniform rates per gross basis, a decrease of 5% in the FB&H, an increase of 1.44% in the RS and District of Brcko (DB) 0%, respectively on a gross basis decrease in Federation for 7.61%, 2.53% in the RS, and in DB to remains with the same rate.
- For health insurance of farmers and self insured to introduce a uniform contribution rate from 7.5% to 55% of the average gross income.
- For the category of insured persons with the status of retired, unemployed, socially vulnerable persons, a uniform rate for mandatory health insurance of 3.75% on the basis of 55% of the average gross salary, which replaces 48 different bases and contribution rates in the 12 health insurance funds.

The possibility of implementing this model justifies its use by comparing the experience of Slovenia and Croatia in health finance reform implemented by adapting fiscal burden in the overall development and implementation of new service provider's payment mechanisms.

After analysis of the base and the rate of contributions for health insurance leads to the following indicators (see Table P.1, PP-2):

- Total revenue from contributions at rates after fiscal equalization on the same basis in 2006 amounted to 1334 million, which is 21.49% more likely to have 100% charge rate.
- Total revenue from taxes after fiscal equalization amount to 1141 million in the total structure account for 85.59%, which is less by 9.49%.
- Non-tax revenues after the fiscal equalization amount to 192 million KM in the overall structure account for 14.41%, which is 9.49% more.

Participation funds from health insurance contributions on wages is 68.16%, which is 14.41% less in the structure and is 909.289 million KM and by 0.29% more compared to the previous calculation.

Funding for the personal incomes of 62,429 employees in public administration, education, defense, health care, which is provided from the budget of the Federation are release by rate of 12% gross 104.386 million KM, which is dedicated and can be redirected to support the health promotion budget (DB practice after the application of rates than 12%), which means the Federal Solidarity Fund represent an increase in total tax revenues in FB&H and B&H. Fiscal equalization of contributions for the categories of insured persons with social status have different effects according to administrative units, as in the RS due to payment arrears early in 2006 and 2005 unrealistic parameters for the insured to affect the budget.

As a basis for the recalculation of the fiscal equalization of payment amounts originally used in 2006, after the abstraction of the real assets of insured social status the difference is shifted to the position of the revenue budget in the amount of 33.815 millions.

Total increase in tax revenues of 138.2 million KM as the effect of fiscal equalization will improve the overall efficiency of the system.

Applying the unique base and the contribution rate will prevent reporting outside the workplace or residence, and shall result in an increase in mandatory health insurance coverage. The degree which includes mandatory health insurance will increase from 78% to 83% of which will affect the revenue growth rates to 50.619 million. Reducing salary contributions in the Federation will increase the number of employees, and reduce the pressure on health care from unemployed bureau.

Allocations for health insurance by fiscal uniform base and the rate in B&H, which are applied by a single existing organization, for categories with social status as a basis for the stability of the health system. Slovenian and Croatian experience shows a significant shift in funding, with the proviso that both the foregoing allocates substantial funds from the budget and the amount of \$195.5 millions represents an increase of 51%. .

Incorporating risk at the state level should be one of the main policies in the fiscal and health system. Equalizing effect in B&H illustrates the following parameters:

Distribution of risks arising from health insurance after fiscal equalization justifies this model in the long term. Here is a case of fiscal equalization and the taxpayer contributions, which provided conditions for the introduction of supplementary insurance. Effects of fiscal harmonization in the FB&H, illustrating the parameters as follows:

Effects of fiscal harmonization in the RS, illustrating the parameters as follows:

Effects of fiscal harmonization in the DB, illustrating the parameters as follows:

The resources collected through the funds of the entity under the coordination of state agencies should be allocated to competitive service providers.

Allocation of funds (third lever of the system) between the different levels of care in B&H, which should be based on the health needs of population customized to financial options and criteria for access and equity has been thoroughly elaborated as the main factor for the sustainability of the health system. Irrational use of funds by donors is the reason for the introduction of new payment mechanisms the countries of the region.

Not without reason, adopted is a new concept of financing hospital services, the concept of paying for primary care in B&H, in order to really use funds from limited resources.

Finance reform in the health sector of B&H, in terms of payment for services involves the implementation of „new payment model“ of hospital services—payment upon diagnosis. This is one of the first documents that to the health sector introduced economic principles of conduct (signed at the state level in July 2007).

Strategic document on the rationalization of hospital capacity in B&H during the debate should serve as the basis for categorization of health facilities that provide hospital services.

The system of payment for family medicine teams have adopted the strategy of primary health care reform, capitation involves payment of the additional stimulation. In this regard the emphasis to primary health care finds its answer in the correct concept, implementation and evaluation of the concept of family medicine.

Funding for payments of services in healthcare by reform orientation involves the introduction of more market principles which justify these changes in the structure of funding sources.

If we look at the coverage of the average health care costs by categories of insured persons in B&H, it is not realistic in the long period to have a dialogue about the payment of services under the new principles, when the insured with the status of pensioners provided cover the cost of only 0.26% or 0.08% in the Federation whereby the model of fiscal equalization percentage of coverage is 0.58%.

The ratio of revenue to cover the costs in 2006 is illustrated in the table as table 1.

Providing health services is a lever of the system that applies to content services to residents and the application

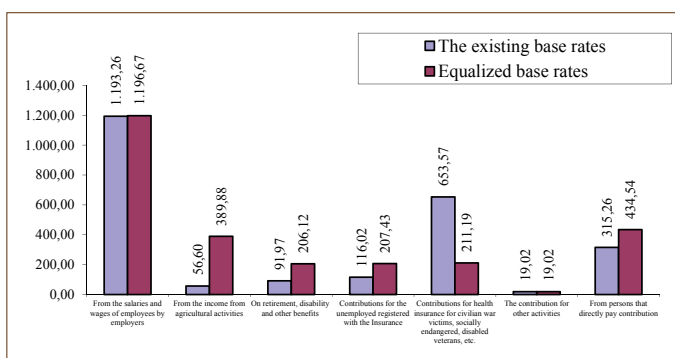


Figure 1. Revenue per insured according to the existing steady rates in B&H in 2006

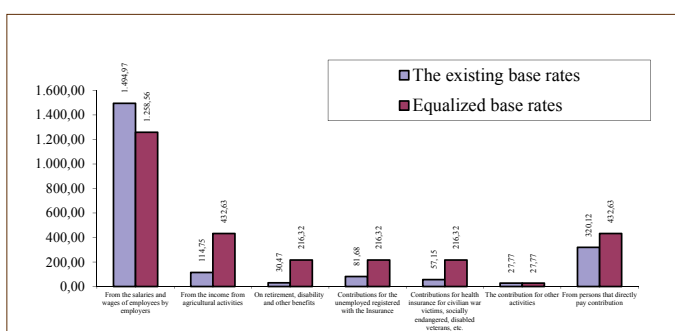


Figure 2. Revenue per insured under existing and uniform rates in FB&H in 2006

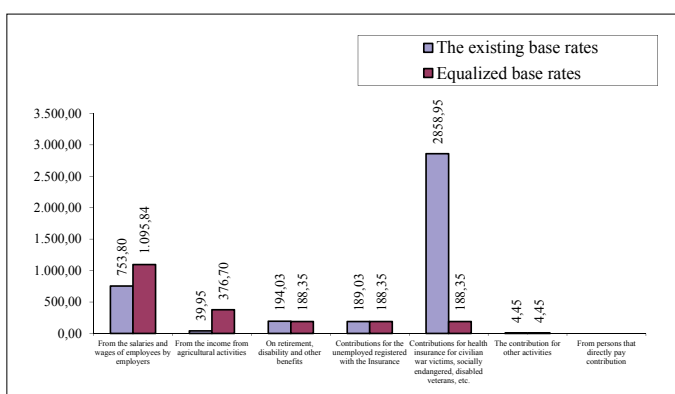


Figure 3. Revenue per insured under existing and uniform rates in RS in 2006

of fiscal equalization is necessary to determine the primary and supplementary packages of right.

- According to the present Constitutional arrangements features health insurance system in B&H are:
  - Health insurance system is decentralized;
  - Right to health protection is achieved via thirteen health insurance funds: in FB&H ten cantonal health insurance funds and the Federal Bureau of Health Insurance and Reinsurance, in RS unique health insurance fund and in DB Health Insurance Fund;
  - Status of the insured person is acquired by the application to the mandatory health insurance and proof required documents (medical identification card);
  - Different base rates for mandatory health insurance and various income per insured person,

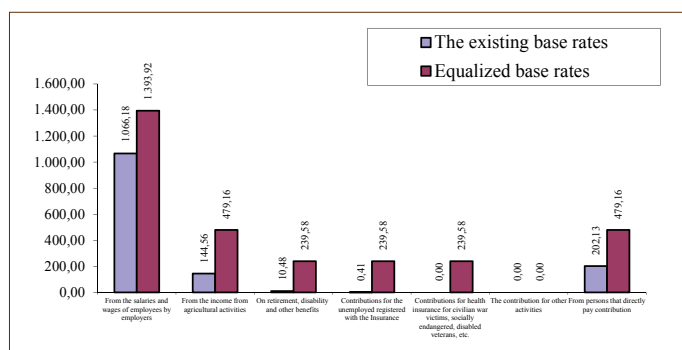


Figure 4. Revenue per insured under existing and uniform rates of DB in 2006

- Risks for higher health care costs are at the entity, cantonal and level of Brcko District;
- Social insurance system (Bismarck system) where the contributions on wages and salaries from primary source for the achievement of rights of health care;
- Unlimited solidarity in the system of mandatory

No.	Income	2006				
		Income by insured person		Cost per insured person	Percent of coverage	
		The existing base rates	Equalized base rates		(3/5)	(4/5)
1	2	3	4	5	6	7
1	Income tax - contributions					
1	From the salaries and wages of employees by employers	1,193,26	1,196,67	354	3,37	3,38
2	From the income from agricultural activities	56,60	389,88	354	0,16	1,10
3	On retirement, disability and other benefits	91,97	206,12	354	0,26	0,58
4	Contributions for the unemployed registered with the Insurance	116,02	207,43	354	0,33	0,59
5	Contributions for health insurance for civilian war victims, socially endangered, disabled veterans, etc.	653,57	211,19	354	1,85	0,60
6	The contribution for other activities	19,02	19,02	354	0,05	0,05
7	From persons that directly pay contribution	315,26	434,54	354	0,89	1,23

Table 1. Revenue per insured under existing and uniform base and the rate and cost per insured person in B&H

No.	Income	2006				
		Income by insured person		Cost per insured person	Percent of coverage	
		The existing base rates	Equalized base rates		(3/5)	(4/5)
1	2	3	4	5	6	7
1	Income tax - contributions					
1	From the salaries and wages of employees by employers	1,494,97	1,258,56	372	4,02	3,38
2	From the income from agricultural activities	114,75	432,63	372	0,31	1,16
3	On retirement, disability and other benefits	30,47	216,32	372	0,08	0,58
4	Contributions for the unemployed registered with the Insurance	81,68	216,32	372	0,22	0,58
5	Contributions for health insurance for civilian war victims, socially endangered, disabled veterans, etc.	57,15	216,32	372	0,15	0,58
6	The contribution for other activities	27,77	27,77	372	0,07	0,07
7	From persons that directly pay contribution	320,12	432,63	372	0,86	1,16

Table 2. Revenue per insured under existing and uniform base and the rate and cost per insured person in the F.B&H

- health insurance for the same medical necessity insured person has the same health service,
- Right to health care are directly dependent on the economic strength of the entities, cantons, and there is no aggregation of risk;
- Participation in health care costs is determined by the decisions of the entities, cantons and DB.
- All the health care systems are grouped in three models: a system of National Health Service–Bevridge model, the social insurance system–Bismarck model

(characteristic of B&H) and the system of private insurance. The purpose of the health system is to preserve and improve human health by providing health care services in an efficient, accessible and acceptable way.

- Within the total population of B&H from 3.915 million in 2006 in Federation lived 59.37%, 37.99% in the RS and 2.63% in DB;
- By the mandatory health insurance in B&H is covered 78% or 3,069,673 people, while 22% or 846,130 residents are uninsured. Coverage of the population with mandatory health insurance is the main indicator for calculating the potential fiscal capacity in this regard is the cost of health care for the population. Coverage of the population by the mandatory health

No.	Income	2006				
		Income by insured person		Cost per insured person	Percent of coverage	
		The existing base rates	Equalized base rates		(3/5)	(4/5)
1	2	3	4	5	6	7
1	Income tax - contributions					
1	From the salaries and wages of employees by employers	753,80	1,095,84	328	2,30	3,34
2	From the income from agricultural activities	39,95	376,70	328	0,12	1,15
3	On retirement, disability and other benefits	194,03	188,35	328	0,59	0,57
4	Contributions for the unemployed registered with the Insurance	189,03	188,35	328	0,58	0,57
5	Contributions for health insurance for civilian war victims, socially endangered, disabled veterans, etc.	2858,95	188,35	328	8,72	0,57
6	The contribution for other activities	4,45	4,45	328	0,01	0,01
7	From persons that directly pay contribution			328	-	-

Table 3. Revenue per insured under existing and uniform base and the rate and cost per insured person in RS

No.	Income	2006				
		Income by insured person		Cost per insured person	Percent of coverage	
		The existing base rates	Equalized base rates		(3/5)	(4/5)
1	2	3	4	5	6	7
1	Income tax - contributions					
1	From the salaries and wages of employees by employers	1,066,18	1,393,92	329	3,24	4,24
2	From the income from agricultural activities	144,56	479,16	329	0,44	1,46
3	On retirement, disability and other benefits	10,48	239,58	329	0,03	0,73
4	Contributions for the unemployed registered with the Insurance	0,41	239,58	329	0,00	0,73
5	Contributions for health insurance for civilian war victims, socially endangered, disabled veterans, etc.	0,00	239,58	329	-	0,73
6	The contribution for other activities	0,00	0,00	329	-	-
7	From persons that directly pay contribution	202,13	479,16	329	0,61	1,46

Table 4. Revenue per insured under existing and uniform base and the rate and cost per insured person in the DB

insurance decreased by 8% in the RS, 5% in the DB, while in FB&H increased by 6% from the average for entire B&H;

- Total number of insured persons in B&H according to the original data by the health insurance funds in the administrative units of the research ranged from 1,696,944 in 2004 to 1,864,191 in 2006;
- The total funding for health insurance in 2006 amounted to 1,098,093,385 KM, which is 22.7% more than in 2005. The main sources of contributions for health insurance, which in total revenues at the state level participated in 95.08%, which is about 15% higher than neighboring countries (Slovenia, Croatia), because of unequal and high rates of

contribution it is not developed as private, voluntary insurance.

- Participation of non-tax revenues in total revenues of health insurance in 2006 amounted to 4.92%, which is not sufficient to cover the rights or does not fulfill the legal obligation;
- In the process of analyzing the available documents to the relevant indicators, in conjunction with the subject of research in administrative units and research for years and problems in applying the existing base and the rate of contributions for mandatory health insurance has been confirmed that:
  - Base for calculating contributions are different: gross wages or gross earnings, with in the calculation of contributions cannot be lower than 55% of gross salary in FB&H, 50% of gross salary in RS and 300 KM in the DB;
  - Contribution rates for health insurance are determined as the gross rates and gross rates range from 25%, 18% and 15% at the entity level for insured persons are employed, and have a variety of fiscal effects on the health system, earnings and employment;
  - There is no joining of risk at the state level, and as a result of different fiscal burden of contributions for health insurance per insured person employed in 2006 totaled: 1495 KM in the FB&H, the RS 754 KM, and 1066 KM in DB;
  - Absence of payment grades are suitable for the abuse of the lowest basis for calculating contributions;
  - Different contribution rates hamper the work of entrepreneurs and brings them at a unequal position;
  - Twelve sub-sectors in health insurance affects the creation of 84 bases and contribution rates for the insured status of workers, pensioners, the unemployed, farmers, civil war victims and other insured persons, and the system of health insurance makes it non-transparent—the absence of restrictive criteria for entry into the insurance system as conducive to abuse and work illegally;
  - Nontax revenues in total revenues range from 1.18% in RS, 5.54% in FB&H and 36.11% in the DB, as shown by low participation in the budget, makes the health system a non efficient, and system of health insurance unfair because insured with the social status are not protected from high medical costs in case of need;
  - Non transparent and unequal access to health insurance with respect to the base and the contribution rate is at a disadvantage of citizens, which is one of the causes of low coverage in mandatory health insurance as confirms data that in B&H is uninsured 22% or 846,130, RS 30% or 448,114, DB 27% or 27,458 in the FB&H 16% or 370,558 people;
  - Greater coverage of health insurance means more budget, but also increased allocations to policyholders who fulfill their rights by competent authorities;
  - In the overall structure of insured persons those

insured with the social status account for 50%, and the funds collected based on these categories of health insurance in the total amount to 11.68%, which requires a review of current methods of calculation, the base and the contribution rate with the introduction of new mechanisms;

- Fiscal system of contributions for health insurance is a fragment and incommensurable with neighboring countries and as such does not provide arguments for the reform of the payment of health care reform as possible without the funding, which usually select the payment system for services.
- Following the results achieved, based on research by administrative units and research for years, the reform of health financing in terms of resources involves the establishment of a modern system, made up of mandatory and voluntary health insurance that will solve the drastic imbalance between expenditure and resources required.

Adequate amendments to the regulatory framework in the field of the fiscal system of health insurance contributions, and elimination of organizational constraints without negative effects on our economic system, it is possible to apply a model of fiscal equalization base and the rate of contributions for mandatory health insurance.

Implementation of model is possible taking into consideration the results in regards to the problem and the subject of research at the entity level, DB and FB&H:

- Instead of different rates of contributions for mandatory health insurance to establish a single gross margin of 12%, the base consisting of the average gross wage in the entities and DB;
- Application of uniform rates per gross basis, a decrease of 5% in the FB&H, an increase of 1.44% in the RS and in DB by 0%, or a gross reduction for the Federation of 7.61%, an increase in the RS of 2.53%, and the same rate in DB;
- For health insurance of self insured farmers to establish a single contribution rate from 7.5% to 55% of average gross wages;
- For the category of insured persons with the status of retired, unemployed, socially vulnerable persons, introduce uniform rate for mandatory health insurance of 3.75% on the basis of 55% of the average gross wage, which replaces 48 different bases and the contribution rate in the 12 health insurance funds.

Applying uniform base and the rate of contributions for health insurance should leads to the following results:

- Total contributions at rates after fiscal equalization on the same basis in 2006 amounted to 1334 million, which is 21.49% higher than the existing ones, with 100% probability of collection;
- Total tax revenues after fiscal equalization amount to 1141 million in the total structure account for 85.59%, a decrease of 9.49%;
- Non-tax revenues after fiscal equalization amount to 192 million KM in the overall structure account for 14.41%, which is 9.49% more than in the current calculation;
- Share of funds from health insurance contributions

on wages is 68.16%, which is 14.41% less in the structure and amounts to 909.289 million and is 0.29% more compared to the previous calculation.

Funding for the personal incomes of 62,429 employees in public administration, education, defense, health care, which is provided from the budget of the Federation with the release rate of 12% gross 104.386 million, earmarked to be redirected to support the health promotion budget (DB practice after the application rate of 12%), which means the Federal Solidarity Fund represent an increase in total tax revenues in FB&H and B&H.

As a basis for the recalculation of the fiscal equalization payment amounts originally used in 2006, after the abstraction of the real assets of the insured by social status in the RS, the difference which is routed to the revenue budget is in the amount of 33.815 million.

Use of unique base and the contribution rate to prevent the reporting of out of work or residence, and the effect on increasing the coverage of health insurance. The degree includes mandatory health insurance would increase from 78% to 83%, which would affect the revenue growth rates to 50.619 million. Reducing payroll contributions to the Federation would increase the number of employees, and reduce pressure on health care through the Labor Office.

Consolidation of risk at the state level should be one of the main policies in the fiscal and health system. Applying the proposed base rate and health insurance contributions of employees the average expenditure per insured amount of 1196.67 KM, which is at the level of calculation for the current system.

Distribution of risks arising from health insurance after fiscal equalization justifies this model in the long run. Here is a fiscal equalization and the taxpayer contributions, which are provided conditions for the introduction of additional security and upholding the working hypothesis that bringing the fiscal burden of this kind in the real framework creates the conditions for the introduction of supplementary insurance.

The funds collected through entity funds under the coordination of state agencies should allocate competitive service providers. Allocation of funds (third lever of the system) between the different levels of care in B&H, should be based on the health needs of the population, adjusted to material resources, and criteria of accessibility

and equity, and is the main factor for the sustainability of the health system.

Irrationally spending of funds by the donors requires the use of new payment mechanisms by insured-in hospitals, capitation in family medicine, the consultative service to the specialist level, as in these countries in the region presented in the study;

Funding of payments for services in healthcare reform orientation involves the introduction of more market principles which justify these changes in the structure of funding sources. It is unrealistic to reform health care payments under the new model in the long term if the insured with the status of pensioners at the state level provides cover for the costs of only 0.26% and 0.08% in the FB&H, without accepting the recommendations on the model of fiscal equalization, where the percentage of coverage is 0.58%.

The possibility of implementing this model justifies its use by comparing the experience of Slovenia and Croatia, which health finance reform implemented by adapting the overall fiscal burden in total development and introducing new mechanisms for payment for services.

Reform course of fiscal policy in respect of contributions for mandatory health insurance in B&H should be directed towards the introduction of unique base and the rate of contributions for health insurance and their share in total revenues to 80% thus creating the preconditions for the introduction of supplementary insurance as well as in Croatia and Slovenia. These reforms must be accompanied by applying new models of payment of health services.

Implementation of fiscal equalization and the base rate for health insurance contributes to improving health care in Bosnia and Herzegovina, thus ensuring the transferability of rights for health insurance and create conditions for universal coverage of health insurance.

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