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# MODERNIZATION OF HEALTH CARE FINANCING IN KYRGYZSTAN

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**Abstract**

In the Kyrgyz Republic, the residual principle of financing the state healthcare system is remained. In this regard, in modern conditions it is urgent to develop a mechanism for attracting additional sources of financing and their effective use. In the analysis of the structure and dynamics of financial resources, potential sources of financing of state organizations in the Kyrgyz Republic for compulsory health insurance have been identified. The main disadvantage of compulsory health insurance in the Kyrgyz Republic is the lack of forms of participation of the insured patient in the economic system of insurance relations. Introducing of personified accounting for compulsory health insurance is proposed for more complete coverage of commercial structures and increase their interest. Informal payments in medicine should not be considered a “bribe”, since in the absence of an adequate regulatory mechanism, this type of payments for medical services appear as an addition to the market price which is not regulated by the state and which cannot be canceled. The only way to formalize this type of payments is legalization.Funds received as a result of the legalization of paid medical services should not be taken outside hospitals and clinics. They should supplement their wage fund and used as a source of motivation.

**Keywords**: state budget, compulsory health insurance, co-payment, paid services, legalization.

# МОДЕРНИЗАЦИЯ ФИНАНСИРОВАНИЯ ЗДРАВООХРАНЕНИЯ В КЫРГЫЗСТАНЕ

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**Аннотация**

В Кыргызской Республике остается остаточный принцип финансирования государственной системы здравоохранения. В связи с этим в современных условиях необходимо срочно разработать механизм привлечения дополнительных источников финансирования и их эффективного использования. При анализе структуры и динамики финансовых ресурсов определены потенциальные источники финансирования государственных организаций Кыргызской Республики по обязательному медицинскому страхованию. Основным недостатком обязательного медицинского страхования в Кыргызской Республике является отсутствие форм участия застрахованного пациента в экономической системе страховых отношений. Для более полного охвата коммерческих структур и повышения их интереса предлагается ввести персонифицированный учет обязательного медицинского страхования. Неофициальные платежи в медицине не следует считать «взяткой», так как при отсутствии адекватного механизма регулирования этот вид платежей за медицинские услуги представляется дополнением к рыночной цене. Единственный способ формализовать этот вид платежей - легализация. Средства, полученные в результате легализации платных медицинских услуг, должны остаться в пределах больниц

и поликлиник. Они должны дополнять свой фонд заработной платы и использоваться в качестве источника мотивации.

**Ключевые слова**: государственный бюджет, обязательное медицинское страхование, доплата, платные услуги, легализация.

## КЫРГЫЗСТАНДА САЛАМАТТЫКТЫ САКТООНУ КАРЖЫЛООНУ МОДЕРНИЗАЦИЯЛОО

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**Кыскача мүнөздөмө**

Кыргыз Республикасында саламаттык сактоонун мамлекеттик тутумун каржылоонун калдык принциби сакталып калган. Ушуга байланыштуу, заманбап шарттарда кошумча каржылоо булактарын тартуу жана аларды натыйжалуу пайдалануу механизмин иштеп чыгуу зарыл. Финансылык ресурстардын түзүмүн жана динамикасын талдоодо, милдеттүү медициналык камсыздандыруу боюнча Кыргыз Республикасынын мамлекеттик уюмдарын каржылоонун потенциалдуу булактары аныкталды. Кыргыз Республикасында милдеттүү медициналык камсыздандыруунун негизги кемчилиги - камсыздандырылган бейтаптын камсыздандыруу мамилелеринин экономикалык тутумуна катышуу формаларынын жоктугу. Коммерциялык структураларды кыйла толук камтуу жана алардын кызыгуусун арттыруу үчүн милдеттүү медициналык камсыздандыруунун персоналдаштырылган эсебин киргизүү сунушталууда. Медицинада расмий эмес төлөмдөрдү "пара" деп эсептөөгө болбойт, анткени адекваттуу жөнгө салуу механизми жок болгон учурда, медициналык кызмат үчүн акы төлөөнүн бул түрү базар баасына кошумча болуп көрүнөт. Бул түрдөгү төлөмдү мыйзамдаштыруунун бирден-бир жолу - бул легалдаштыруу. Акы төлөнүүчү медициналык кызматтарды легалдаштыруунун натыйжасында алынган каражаттар ооруканалардын жана поликлиникалардын чегинде калууга тийиш. Алар эмгек акыларын толуктап, мотивациянын булагы катары колдонулушу керек.

**Негизги сөздөр**: мамлекеттик бюджет, милдеттүү медициналык камсыздандыруу, кошумча төлөө, акы төлөнүүчү кызматтар, легалдаштыруу.

### 1. Introduction

One of the main tasks of any state is to provide its citizens with qualitative and affordable medical services. In the Kyrgyz Republic, financial sources of state programs do not cover the needs of their implementation, which is the main problem of modernization of the healthcare system. The Single Payer system in the Kyrgyz Republic has several sources of financing: the state budget, compulsory health insurance, co-payment and paid services. Despite the multichannel sources, the amount of financing does not correspond to the real needs of healthcare.

In the Kyrgyz Republic, the residual principle of healthcare financing remains. The search for potential sources for healthcare and the identification of ways of their effective distribution and use require an improvement in financing of state healthcare organizations. In this regard, it is urgent to develop a mechanism for attracting additional sources of financing and their effective use.

**The purpose of the article**: the theoretical and methodological justification for improving the effectiveness of health financing and the proposal of a set of measures to modernize the funding system in the Kyrgyz Republic.

### 2. Financial sources of the endowment healthcare system

Healthcare in the Kyrgyz Republic is financed from the following main sources: the republican budget, funds of the Compulsory Health Insurance Fund (CHIF) and the local budget of the Bishkek city,

as well as co-payments of patients. The CHIF combines all the main sources of healthcare finance and distributes them between healthcare organizations across the republic (Table 1).

Analysis of the sources of funds of the Single Payer shows that over 10 years there has been a significant increase in financial resources. In the Kyrgyz Republic, the residual principle of healthcare financing remains.

Healthcare expenditure makes up only 10% of budget expenditures and about 3% of GDP. The main share of the total expenses of healthcare organizations is labor costs - 63.2%, expenses for the purchase of medicines - 11.0%, the purchase of food products - 3.7%. In 2019, hospital expenses for providing 1 patient with medicines for one day on average amounted to 168.90 soms, with food products - 75.89 soms. [1]

Salaries of hospital workers amounted to an average of 12918 soms for doctors, salaries of employees of primary healthcare organizations amounted to an average of 14777 soms for doctors. At the same time, the average salary of a family doctor amounted to 25188 soms, of which 14153 soms are paid according to performance indicators, which is 128.3% of the family doctor's salary established by the state according to the general tariff scale. It follows that despite the multichannel sources, the amount of funding does not correspond to the real needs of healthcare.

Table 1. Dynamics of changes in the total health care expenditures of the Kyrgyz Republic (million soms)

| Main sources | 2009 | 2011 | 2013 | 2015 | 2016 | 2018 | 2019 | 2019 in % to 2009 |
|---|---|---|---|---|---|---|---|---|
| Republican budget | 4008,3 | 6056,7 | 8481 | 8551,9 | 9081,8 | 10466,7 | 11129,2 | 277,7 |
| CHIF | 765,4 | 1062,2 | 1390 | 1855,7 | 1916,0 | 2328,4 | 2388,3 | 304,2 |
| Private | 333,8 | 434,5 | 660,3 | 924,1 | 1328,5 | 1784,3 | 2213 | 662,9 |
| Total | 5107,5 | 7553,4 | 10532 | 115590,9 | 12326,5 | 4579,4 | 15720,5 | 307,8 |

Source: calculated according to the data of the Ministry of Health of the Kyrgyz Republic for 2009-2019.

**3. Financial provision of healthcare under compulsory health insurance**

The system of state financing of healthcare, along with the budget has such a source of financial support as the CHIF. It represents the Single Payer system. For the formation of the fund employers contribute a certain percentage of its wage fund. The funds received in this way are used to pay for the guaranteed package of medical services provided by the state healthcare system. Both budget financing and the compulsory health insurance system are opposed to the private form of financing. The private form provides for the payment of the medical services depending on their volume, where the patient's capacity to pay becomes an important factor, whereas the compulsory health insurance system excludes this factor. Here healthy people contribute certain amounts to the general insurance fund, which is managed by a special insurance institution or insurance company, and then get the opportunity to be treated at the expense of the collected funds. The CHIF under the Government of the Kyrgyz Republic collects, accumulates and distributes incoming budgetary funds and insurance contributions, representing the Single Payer system. It is possible to finance the regions in equal shares. [2] In order to determine whether an insurance system is needed or not, the causes of its origin should be considered. The unpredictability of the disease makes it difficult to plan family health expenditures. A person is forced to

take into account the risk of the disease and the associated costs. In order to avoid large one-time expenses in a situation of uncertainty, people use various forms of insurance.

The system of compulsory health insurance considered in this paper is widespread both worldwide and in the CIS region, representing a way of social protection of citizens in the field of healthcare. It is attractive for countries due to such functions as: conducting an independent examination of the quality of provided health services; accumulating extra budgetary funds for medical care at the expense of employer contributions; guaranteeing payment of the provided medical services from the funds contributed by the insurer.

The implementation of the compulsory health insurance system in the Kyrgyz Republic was conceived as an insurance model, but it cannot be truly called such. Since it only has function of redistributing taxes and insurance contributions collected by tax authorities and the Social Fund. From the moment a compulsory health insurance system is created, funds collected for compulsory health insurance go to the Social Fund and then go to the CHIF. It is noticed that there are no economic forms and mechanisms in the national system of compulsory health insurance that allow the participation of a patient consuming medical services in relations concerning insurance. Contributions to the compulsory health insurance represent a kind of compulsory state tax and the state form of financing the healthcare system.

A study of the economic content of the compulsory health insurance system in Kyrgyzstan reveals that it does not contain the concepts of an insured event and risk. The implementation of financial compensation involves a quantitative factor. This includes indicators such as the cost of a particular service, outpatient visits, and bed days. Thus, this once again shows that the insured patient is not included in the insurance relationship. According to the survey maid for the project of Kyrgyz-Turkish Manas University, 63% of the surveyed patients of the hospital care said they did not know about free medical services under the state guarantees and compulsory health insurance programs. Moreover, they entered into parallel off-system relationships with medical workers such paying informal treatment fees. 28.6% of patients, or almost one in three of respondents said that they paid for the treatment informally. 27.4% of these patients almost always use informal payments, while 43% said they sometimes buy medicine at their own expense. [3] Most importantly, there is no direct motivation that would allow the consumer of medical services to be identified as the main priority in relations with those who provide these services.

The share of compulsory health insurance in the Kyrgyz Republic shall be considered. Following the dynamics of the Single Payer income coming from compulsory health insurance, can be noted that the share of compulsory health insurance funds for ten years has remained almost unchanged (Table 2) and amounted to 15.7% of total healthcare expenditures.

The reason for the low share of insurance revenues is that the public sector employer is represented in the system of compulsory health insurance in the republic as the main payer. He makes significant contributions to the CHIF, but at the same time he has low and fixed incomes, since the main payers are workers of the budgetary sphere with fixed incomes. This means that real sources of compulsory health insurance sphere are extremely limited.

In addition, in Kyrgyzstan there is a norm of insurance premiums, which entered into force in 1997 and since then has not been revised. This norm is 2%. This percentage is calculated from the employer's wage fund. Every month, the employer makes contributions to the CHIF from all types of income in accordance with this norm. In the CIS countries and far abroad current rates are much higher, as can be seen from the Table 3. The collection of social laws of Germany has data showing that the average taxpayer spends 14.3% of his salary on maintaining, restoring and improving his health while the employer spends a little less than half of this amount. These data can vary from 12 to 15%. It all depends on the health insurance fund. As economic studies show, the amount of contributions will only increase. For 10-12 years, it will approach 25%. This is explained by quite objective reasons associated with the natural aging of people and the increase in the cost of medical care. [4]

Table 2. The structure and dynamics of the Single Payer budget

| Main sources | 2009 | 2011 | 2013 | 2015 | 2016 | 2019 | 2019 in % to 2009 |
|---|---|---|---|---|---|---|---|
| Budget | 78,5 | 80,2 | 80,5 | 75,3 | 77,7 | 73,5 | - 5 |
| CHIF | 15,0 | 14,1 | 13,2 | 16,4 | 13,9 | 15,7 | +0,7 |
| Private | 6,5 | 5,7 | 6,3 | 8,3 | 8,4 | 7,2 | +0.7 |
| **Total** | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100 | |

Source: calculated and compiled according to the data of the Ministry of Health of the Kyrgyz Republic.

Table 3. Current rates of compulsory health insurance in the CIS countries, far abroad and Kyrgyz Republic

| Country | Deductions to the compulsory health insurance fund (%) | |
|---|---|---|
| | From employer | From an individual |
| Kyrgyzstan | 2 | - |
| Russia | 5,1 | - |
| Georgia | 3.0 | - |
| Moldova | 3,5 | 3,5 |
| Germany | 7,45 | 7,45 |

Source: State Health Insurance in Germany.

State health insurance in Germany has its own characteristics. The amount of the contribution of the insured person depends solely on his income, while the size of the contribution does not matter. In other words, if a person is insured, then the scope of services will be provided to the extent that is provided in the contract. The same services will be provided to members of his family, automatically they are also insured. But there is a condition that income should not be higher than the established limit. A positive aspect is the availability of equal opportunities in using medical services, since neither age, physical or mental condition, nor financial conditions are an obstacle. [4]

What about Kyrgyz insurance system? Although the majority of the Kyrgyz population (98%) is insured, to the question “Do you get medicines for free from the additional package of compulsory health insurance?” 66.4% of the 375 interviewed patients answered “no”. [3] This means that the State Guarantees Program for insured citizens of Kyrgyzstan does not reach the goal. The main reason is the limited financial resources. As can be seen from Table 4, the structure of insured citizens underwent significant changes: the share of employed citizens decreased from 27.7% in 2009 to 15.4% in 2019, from which a significant part of employer insurance contributions came. This is due to the fact that employers are not interested in making contributions for compulsory health insurance. They have clear desire to make these payments as low as possible, as a particular payer does not know

how his money is used. According to the Table 4 the main part of insurance participants are consumers of compulsory health insurance. Among the citizens using compulsory health insurance, the largest share is children under 16 years old - 34.3%, pensioners - 9.1% and farmers - 12.5%. A part of the population working in commercial structures and having higher incomes is hardly covered by the health insurance system. Insignificant financial resources can be collected from farmers and private entrepreneurs. In addition, the main part of the population of Kyrgyzstan, about 70%, living in rural areas due to the unemployment, does not participate in the payment of compulsory health insurance.

Table 4. Dynamics and structure of insured citizens in the republic for 2012-2015

| Categories of citizens | 2012 | | 2013 | | 2015 | | 2019 | |
|---|---|---|---|---|---|---|---|---|
| | Thou-sands | % | Thou-sands | % | Thou-sands | % | Thou-sands | % |
| Employed | 1146,3 | 27,7 | 806,6 | 20,1 | 782,2 | 19,2 | 946,8 | 15,4 |
| Pensioners | 521,1 | 12,6 | 533,0 | 13,1 | 522,7 | 13 | 557,1 | 9,1 |
| Children under 16 years old | 1779,6 | 43,0 | 1768,8 | 44,0 | 1872,1 | 45,6 | 2102,7 | 34,3 |
| Children from 16 to 18 years old (school-children) | 216,3 | 5,2 | 208,8 | 5,2 | 201,7 | 4,9 | 199,2 | 3,2 |
| Farmers | 389,4 | 9,4 | 606,3 | 15,1 | 583,5 | 14,2 | 766,6 | 12,5 |
| Social security beneficiaries | 77,5 | 1,9 | 83,4 | 2,1 | 87,2 | 2,1 | 67,3 | 1,1 |
| Individuals who independently purchased the compulsory health insurance policy | 4,9 | 0,2 | 8,7 | 0,2 | 38,5 | 0,9 | 8,5 | 0,1 |
| Refugees, funds for whom come from UNHCR | 0,2 | 0,0003 | 0,1 | 0,003 | 0,2 | 0,01 | 0,2 | 0,01 |
| Military personnel | 2,6 | 0,06 | 2,5 | 0,06 | 2,5 | 0,06 | 4,3 | 0,1 |
| Total | | | 4018,2 | 100 | 4105,2 | 100 | 6 138,9 | 100 |

Source: CHIF data for 2009-2019.

However, due to their low income, they are more at risk of disease than the urban population. There is a failure regarding the lack of insurance for such a category of citizens as those who are in the military service, unemployed, students of secondary educational institutions and universities and

others. [5] In this regard, it is necessary to take into account the real situation and provide sources of treatment for unemployed citizens of the country.

There is another factor characterized as an additional source of financial resources that requires attention and which is foreign citizens. Those foreign citizens who have been living on the territory of the Kyrgyz Republic for a long time but do not have health insurance are potential sources for financing compulsory health insurance. In recent years, the implementation of health insurance policies for foreign citizens has been practiced. However, policies do not guarantee quality services, and therefore the number of foreign citizens using them is extremely limited.

Thus, the health insurance income for these reasons is insignificant and requires a change in insurance principles. It is necessary to transform the current budget-insurance system for financing healthcare into a system based on the insurance principle, which needs transparency.

There is no saving scheme in the CHIF, and if a person stops working, he automatically excludes from the insurance system. People would be interested in insuring their health if the system of saving scheme will have place.

In order to cover the commercial structure, it is necessary that representatives of this sphere themselves are interested in it. It is necessary to personify the accounting of compulsory health insurance funds. There is a need to build a normal, flexible, differentiated insurance system which is taking into account the scope of activity, age and other criteria of the insured person and also has transparent and accessible accounts for them.

Today, due to a significant increase in prices for goods and services, the amount of funds allocated to healthcare from the state budget and compulsory health insurance does not cover primary expenses of healthcare organizations for the provision of quality medical services. The lack of funding for the healthcare system in Kyrgyzstan does not allow the full development of advanced medical technologies. A significant part of the medical equipment in healthcare organizations is morally and physically obsolete; the administrative buildings of healthcare organizations require major repairs.

**4. Analysis of extra budgetary forms of financing healthcare**

Statistics show that the major share of the funds that the state provides to the healthcare sector goes to the needs of beneficiaries. This is a large indicator - 94%, the remaining funds are clearly not enough to ensure the treatment and prevention of diseases of citizens who are forced to finance their services themselves (both citizens and the employer). Thus, one thing is declared, but in reality other economic conditions are observed. In order to receive medical care, it is necessary to bear more and more expenses, as they are constantly growing.

The basic program of compulsory health insurance covers only 57% of the minimum needs of social categories of the population who need free treatment. They must independently pay for medical services in order to solve health problems and survive. As practice shows, this process is spontaneous and unsystematic. There is no thoughtful and objectively determined strategic program for replacing free services with paid ones. Therefore, it is impossible to see something like this in official or legislative documents. Despite this, it really exists.

The connection is seen in the existence of old price lists. Dating back to 2008, some prices are lower than the real cost of medicines treatment. For example, this applies to X-rays and a detailed blood test. For instance, in the city of Talas, an X-ray works only for a hospital and costs 50 soms. Analysis prices do not cover costs. The technology is old, no tomography. Ultrasound costs 25 soms, examination of the gallbladder and liver - 38 soms, puncture of the maxillary sinus - 64 soms, opening of a paratonsilar abscess - 47 soms. And in a private clinic, only a general blood test costs 160-300 soms. [3]

A research made by using the survey method showed that a patient who applied to a medical institution for a surgical operation often contributes, in addition to co-payment, additional payments. Among the respondents, 26.9% expressed this opinion. This can explain why many are in favor of legalizing additional payments. 70.2% of respondents favored legal payment of medical care. To the question “Do you consider it necessary to pay medical personnel for the quality of treatment?” - 36.4% of patients in the clinic answered “yes”. At the same time, 67.8% of patients are completely

unaware of the list of 24 free medical services under the State Guarantees Program. 41.2% of patients believe that quality treatment can only be guaranteed by paying for medical services. Currently, the same medical workers on the same equipment provide both paid and free services. In these conditions, the healthcare system is not able to avoid violations and shadow incomes. 58% of respondents believe that quality treatment can only be obtained by paying for that treatment, and 28.6% of respondents pay directly to doctors for medical services. Whereas the share of revenues from private payments, such as co-payment and official payment for medical services, flowing into the income of the Single Payer, is only 10.8%. This means that the actual payment for services has an informal form. [3] In this paper payments to doctors made through informal channels are not considered as a bribe. The healthcare financing system has not developed a regulatory mechanism. Unofficial payments, which in these conditions supplement the market price, cannot be canceled. And no one regulate this situation. So, those who require legalization of the additional payments seem to be right. Thus, this kind of operations will be in sight, so they can be regulated.

Special funds, in other words revenues from paid services, should become the source of the private fund of the clinic or hospital, used primarily to increase the income of workers providing medical services. In the meantime, these funds, as an additional contribution for the medical service (this may be a payment for medicines, presents to the doctor and his assistants, payments for surgery) are received, bypassing the cashier.

There is another trick of the medical staff - it is a share in the purchase of medicines through a particular pharmacy or laboratory tests. The doctor has a contractual relationship with the pharmacy and laboratory, due to he receives his share of the sold medicine and taken tests. There are frequent cases when certain laboratory tests were not needed. The conclusion is clear - patients pay several times for the service, while they do not receive any guarantee that the treatment will ensure recovery.

Despite the growth of state funding in recent years, the share of paid services in medical care is increasing. There is a spontaneous process of replacing the state budget expenditures on the medical services with private ones, as well as the low quality of free services. Meanwhile, more and more people representing the vulnerable segments of the population are at loss. The social consequence of this phenomenon is growing inequality in obtaining quality medical care.

Paid medical services are carried out in the form of official and unofficial payments of patients for the services (for example, dental, etc.). Special funds are revenues from paid services of medical and non-medical content. The latter include funds received in the form of rent for the facility that the medical institution has on its balance. Some patients need more comfortable conditions and pay for it.

Special funds supplement the budget of a medical organization directly, bypassing state participation. There are some forms of personal expenses that exist in the healthcare system of the Kyrgyz Republic and have a medical focus. These are: the direct purchase of medicines, the provision of paid services at full cost, informal payments for the provision of services. Due to paid services, the medical institution has the opportunity to introduce new treatment technologies. In addition, the budget deficit is mitigated, which is important in the context of the transition to market relations. But there are also disadvantages, such as the absence of control function, spontaneous development of relations regarding the payment of medical services. Also, the price list is not updated, the volume of services is not determined. Public health personnel and state-owned equipment are used to provide paid services. This tendency is obvious and entails the use of hospital wards which are on the expenses of the state for the treatment of paid patients.

The consequences are manifested in the inefficient use of healthcare resources and over-limit utility costs. In these conditions, it is difficult to talk about optimizing the care provided in hospitals. There is a contradiction. With the increase in the scope of provided services on a paid basis per capita, the length of the patient’s stay in the hospital increases, and with it the bed capacity also increases. Hence the hospital resource is distributed over many cases of hospitalization, which affects the cost of one case - it becomes lower.

At the same time, the level of quality of the provision of medical services to the patient becomes lower. Paid services also determine the appearance of excess capacities at a medical institution for

which funds are spent, and this entails their inefficient use. Logically, the extra capacities that have appeared should be closed and it doesn't matter what source of financing they have. Special funds coming to healthcare institutions for paying additional services to citizens have increased 8.6 times in the whole country for 8 years (Table 5). However, their share in the healthcare budget does not exceed 6%. This means that a significant portion of the service charge takes the form of "informal payments".

Table 5. The revenues of special funds in the healthcare system of the Kyrgyz Republic by territory for 2009-2016 (million soms)

| Territories | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2016 to 2009 in % |
|---|---|---|---|---|---|---|---|---|---|
| Bishkek | 32,1 | 33,8 | 42,0 | 63,8 | 95,8 | 287,6 | 244,0 | 254,4 | 7,9 |
| Regions | | | | | | | | | |
| Chuy region | 10,1 | 13,1 | 16,2 | 19,6 | 26,0 | 33,7 | 49,0 | 66,7 | 6,6 |
| Osh region | 15,3 | 28,3 | 39,0 | 51,5 | 56,5 | 62,4 | 101,4 | 119,0 | 7,8 |
| Batken region | 2,0 | 3,2 | 5,8 | 6,5 | 8,5 | 21,2 | 17,6 | 29,4 | 14,7 |
| Djalal-Abad region | 5,6 | 7,7 | 9,2 | 10,9 | 16,6 | 30,8 | 50,0 | 87,0 | 15,5 |
| Issyk-Kul region | 5,5 | 6,4 | 7,8 | 10,3 | 14,8 | 19,7 | 47,5 | 31,2 | 5,7 |
| Naryn region | 1,3 | 1,6 | 2,3 | 3,4 | 4,0 | 7,6 | 15,9 | 19,2 | 14,8 |
| Talas region | 0,6 | 0,9 | 1,0 | 2,0 | 3,2 | 3,8 | 6,7 | 23,5 | 39,2 |
| Total | 73,0 | 95,0 | 123,3 | 168,0 | 225,4 | 466,8 | 532,1 | 630,4 | 8,6 |

Source: data of the Ministry of Health of the Kyrgyz Republic for 2009-2016.

Revenue by region is uneven. The highest growth is observed in Talas region (39.5 times), and then comes Batken (14.7 times) and Osh (7.8 times) regions. In Bishkek, Chui and Issyk-Kul regions, the growth rate of revenues from the special funds are about the same. This can be explained by the fact that due to the lack of treatment and diagnosis technology in the regions, patients are forced to go to the capital or regional centers and pay for medical services. The direction of expenditure of special funds for providers of medical services by cost sections should be considered. Funds allocated for financing primary healthcare grew 3.4 times, and for hospitals - 8.2 times. For 2008-2016 the growth of financing from special funds of the main items of expenditure, such as the cost of medicines is only 23% and nutrition - 7.4%. Moreover, most of the funds are aimed at increasing salaries of medical staff, utility costs and other expenses. Thus, sick people who need state support provide additional payment to doctor's salaries, while a small proportion of that payment is used for treatment and nutrition in hospitals. As noted above, existing tariffs are outdated and do not cover all types of medical services that are actually paid informally. In expenses the section of "Other expenses" occupies a significant share, however it was impossible to decode the content of this section of expenses.

**5. Co-payment**

An important source of additional financing for health facilities is the funds of citizens paid by them in the form of co-payment for treatment in hospitals. Co-payment is the participation of citizens in the payment of the cost of the medical services they receive, provided by healthcare organizations functioning in the Single Payer system, on an outpatient and inpatient level, in excess of the amount of funding for the State Guarantee Program. Funds received by health organizations in the form of co-payment are not subject to taxation and withdrawal to the state budget.

Co-payment at the inpatient level is paid for surgical and therapeutic services, in accordance with the amounts established by the State Guarantee Program. [6] Co-payment at the outpatient level is paid for laboratory and diagnostic tests (with the exception of basic laboratory and diagnostic tests provided under the State Guarantee Program free of charge) carried out in family medicine centers, general practice centers, outpatient diagnostic departments of general hospitals, consultation and diagnostic departments of tertiary level hospitals.

Co-payment is a one-time payment. It demonstrates the consumer's participation in the payment of each medical service received and is considered as an additional source of financing for various level providers of medical services. In most countries, co-payment is introduced in order to limit the excessive needs of patients receiving medical care which is paid from insurance funds.

Three types of payment schemes are known depending on the agreement of the financial parties. This can be 1) contribution, 2) co-insurance (in the cost of medical care a certain proportion is established accepted per unit, and this proportion is paid by the insured for each unit), 3) complicity (services are paid depending on the category of population). Co-payments are quite common in Western countries, where public health is at a high level, and each of them uses it in their own way. This refers to the amount of co-payments. It can be either purely symbolic, as for example in Sweden, or rather high, like in France. In the Russian Federation, as well as in the Kyrgyz Republic, the so-called "natural co-payment" takes place. This means that patients themselves buy medicines, food, and bring their bedding and dishes to hospital wards. However, this is not enshrined in law. [7] In some countries, and there are many of them, along with the employer, the insured make some of the contributions. Thus, co-payments are included in the compulsory health insurance system.

The example of Sweden shows that the state takes the main burden of financing medical expenses, nevertheless, the population is also involved in this process, 10% is on the share of population. Detailed consideration of the expenses which falls to the population to maintain their health emphasizes the following services: a visit to a doctor - 100-300 SEK; staying in the hospital for one day - about 80 SEK. There are benefits for young people under the age of 20. They can use the services of a dentist for free. The adult population receives compensation. After initially spending 700 SEK, the patient receives further treatment at a discount of 35-70%. The percentage is set depending on the total cost. There is a limit on the amount of medicines purchases. It reaches $100 per year. For this amount, patients spend their own money, further expenses (depending on their size) are carried out according to the subsidized system. [8]

The type of payment such as contribution involves the payment of a certain amount in cash before the insurance mechanism and the provision of medical care. For example, a patient pays the first $50 in cash to cover the cost of treatment in a hospital, or $200 to cover the cost of outpatient services for the year. The second type of payment - complicity in the payment of services - is a one-time payment, which provided for each service that the patient receives, for example, $5 for a prescription. The third type of payment - co-insurance - provides for the payment of a certain percentage of the total amount by the patient himself. For example, a patient pays 20% of the cost of treatment. Co-payment is considered as an additional source of financing for suppliers of different levels. Co-payment schemes include medicines, optics, in some countries certain rates have been introduced for visiting a doctor or staying in a hospital.

**Co-payment by population categories**

The level of co-payment also depends on categories of the population. This is done to protect the low-income population, or those who suffer from severe chronic diseases. The amount of co-payment

should be close to the real costs for each individual patient, otherwise he will not know what the co-payment is for.

In the Kyrgyz Republic, funds paid in accordance with co-payment are transferred to the Single Payer system. In accordance with this, they accumulate in a single fund. Further, they are distributed depending on how many treated cases have been reported in hospital reports. Data is taken over the past year.

An insignificant proportion of co-payment and special funds are noted (Table 6). This is explained by the fact that, according to the State Guarantees Program, the list of beneficiaries has expanded. In addition, there have been insignificant changes in the co-payment for treatment since 2002. So, if in 2013 1.3 million people, or 24.8% of the total population, acquired benefits for free medical care under the State Guarantees Program, then in 2019 - 1,075 people, or 18.7% of the country's population. 17.2% of these are citizens with social status benefits.

Table 6. Dynamics of sources of financing the consolidated budget of the Single Payer system for 2014-2019. (million soms)

| Sources of financing | 2014 | 2015 | 2016 | 2018 | 2019 | 2019 in% to 2014 |
|---|---|---|---|---|---|---|
| Republican budget | 7,092 | 7,915 | 9,082 | 10466,7 | 11129,2 | 1567 |
| Compulsory health insurance funds | 1,843 | 1,641 | 1,916.0 | 2328,4 | 2388,3 | 1327 |
| Co-payments funds | 434.9 | 393.2 | 480.6 | 550,3 | 551,7 | 127 |
| Special funds | 466.8 | 560.6 | 847.9 | 744,5 | 543,6 | 117 |
| Local budget of Bishkek | 1,075.1 | 575.3 | _ | _ | _ | _ |
| Total | 10,911 | 11,086 | 12,326 | 14 579 | 15234,6 | 1398 |

Source: CHIF data for 2013-2016.

The co-payment made by patients during hospitalization remained unchanged. So, pensioners up to 70 years old, persons awarded the Veteran of Labor medal, people receiving social benefits pay the minimum amount of co-payment. This is 330 soms during the hospitalization in the therapeutic department, 430 soms during hospitalization for surgical interventions. The insured category (children over 5 years old, employed population, farmers and farm members, persons with a compulsory health insurance policy) pay the average level of co-payment which is 840 soms/1090 soms (the fraction indicates therapy/surgery). In city, district, regional hospitals, in republican organizations and national centers this price goes to 1160 soms/1510 soms. Other citizens pay the maximum level of co-payment, which is 2650 soms/3440 soms in city and district hospitals, 2980 soms/3870 soms in republican organizations and national centers. There are different opinions about the co-payment, especially its size. The prevailing opinion is that the size has remained unchanged since 2002. Since that the cost of medical services, at the same time the cost of other services and products has increased. Consequently, the cost of this part of medical services should also increase. Co-payment has a significant disadvantage associated with the fact that the patient has to pay for the same services several times. However, there is no guarantee of full recovery.

Many medical leaders believe that co-payment is not necessary, since patients themselves buy medicines at their own expense, and in this regard there are many complaints and indignations. In addition, the very principle of establishing the amount of co-payment is unfounded. In Kyrgyzstan in 2003, UNDP conducted a survey among residents of the Issyk-Kul region about family spending on medicine during the year. These costs - an average of 1200 soms - were laid in the basis of co-payment, which has nothing with the costs of a particular patient, especially for a specific type of disease.

"The amount of co-payment is determined based on the health care needs for financial resources" - this is stated in the "Regulation on the procedure for co-payment of medicines by the population" [9]. Hence, it is difficult to establish criteria for the size of payment for an individual patient and even more difficult to take into account the real costs of treatment. Co-payment in 2016 amounted to only 4% of the Single Payer income. The drawback of the current process is that the patient does not really have state support. In reality, some patients cover the expenses of others. In this case, it is fairer for the patient to pay part of the costs of medical care. In our opinion, fixed co-payments for medical services should be removed and a differentiated co-payment should be practiced, which will concern medicines, the cost of which the patient will not pay in full, but in part. This practice is widespread in Turkey and it is worth paying attention to it. The experience of other countries also indicates a trend associated with increased consumer responsibility in financing their own treatment. That means the form of co-payment.

**Conclusions:**

Based on the analysis of funding for the health system and public health organizations, the potential sources of financial resources in the system of Compulsory health insurance have been identified, priority pathways in the allocation of financial resources in the public health system have been proposed, and financial sources of increased motivation for medical personnel have been proposed.

- In order for the state guarantees to be consistent with their real financing, it is necessary to specify the types of free medical care within the framework of state guarantees and paid medical services.
- In order to encompass a commercial structure, it is necessary that representatives of this sphere themselves are interested in this. It is necessary to personify the accounting of compulsory health insurance funds.
- It is necessary to create a system of insurance for foreign citizens as a potential source of financing healthcare system.
- There is a need to determine the sources of treatment for unemployed citizens. It is necessary to build a flexible, differentiated insurance system with accounts that are transparent and accessible to the insured person, taking into account the scope of activity, age and other criteria.
- Payments received by a doctor through informal channels should not be considered as a bribe. The health financing system has not developed a regulatory mechanism. It is necessary to legalize these additional payments.
- Special funds or revenues from paid services should become the source of the private fund of the clinic or hospital, used primarily to increase the salaries of medical workers.
- The amount of co-payment should be differentiated and close to the real costs for each individual patient, otherwise he will not know what the co-payment is for.
- Fixed co-payments for medical services should be removed and a differentiated co-payment should be practiced, which will concern medicines, the cost of which the patient will not pay in full, but in part. This practice is widespread in Turkey.

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