HEALTH POLICY
ANALYSIS
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Policy Research Paper № 79

A financial gap in the implementation of the State Benefits' Package Program (SBP) in health institutions of the Single Payer System

Bishkek
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This report, intended to identify a financial gap in the implementation of the State Benefits' Package Program in health institutions working in the Single Payer system at the hospital level (Osh Interoblast Joined Clinical Hospital, Kara-Suu Territorial Hospital of Osh Oblast, the National Hospital of the Ministry of Health, City Clinical Hospital #6 in Bishkek), was prepared with a financial support of the German Development Bank (KfW) by the following working group:

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Abbreviation

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WHO	World Health Organization
SBP	State Benefits' Package
HI	Health institution
MHIF	Mandatory Health Insurance Fund
MH	Ministry of Health
Ds	Drugs
MGs	Medical goods
GBT	General blood test
CUT	Clinical urine test
MHI	Mandatory Health Insurance
DRGs	Diagnosis related group
DB	Data base
CCH	City Clinical Hospital
TH	Territorial Hospital
Medical Records	Medical records of a hospital patient
NH	The National Hospital
OIJCH	Osh Interoblast Joined Clinical Hospital
COJH	Chui Oblast Joined Hospital
AMUs	Administrative and Management Units
EUs	Economic Units
COLDs	Chronic obstructive lung diseases
BA	Bronchial asthma

1. INTRODUCTION

A health system is a combination of all state-run and private organizations, institutions, structures, and resources intended to improve, maintain, and rehabilitate the health of human beings.

The main objectives of any health system include the provision of health, ensure equality in health matters, just financing of the system, protection of people from impoverishment as a result of disease, and responsiveness to the needs and preferences of people (dignity, independency, and respect). To address these matters, the state adopts the State Benefits' Package Program (SBP hereinafter) to ensure the provision of health care to the citizens of the Kyrgyz Republic using new financial methods. The SBP is adopted on the annual basis starting from 2001.

The SBP is a state health standard that determines the volume, types, and conditions for health care provision to the population and ensures the implementation of the citizens' rights to health services as provided by health institutions regardless of their ownership title, that participate in this Program.

In real terms, the state is unable to provide all services free of charge. Therefore, because of insufficient funding and a high level of unofficial payments by population for their treatment, a co-payment was introduced as a mechanism to constrain unjustified medical services.

Co-payment is a shared payment made by population for medical services that are provided in excess of the SBP's funding.

A number of categories of people entitled to benefits, namely the receipt of medical services for a minimum co-payment or free of charge, has significantly expanded in the process of SBP's implementation (18 categories in 2001 and 52 – in 2004). While in 2001-2002 persons entitled to free medical services in hospitals made up 10%, in 2004 the share of people entitled to social privileges after being treated in hospitals increased from 8,8% in 2003 till 24,1% in 2004, and a share of people entitled to privileges based on medical reasons increased from 8% in 2003 to 20,2% in 2004. As such, the number of patients treated in hospitals free of charge or with the minimum co-payment grows every year, which in the majority of cases makes up no less than 45% of the total treated patients.

At that point of time the minimum co-payment as related to the average wage for Kyrgyzstan acted as a limiting factor for unjustified consumption of medical services, however, today, with the account of inflation, the co-payment appears to be very low in order to restrain unjustified consumption of medical services.

Table 1. Average wage in the Kyrgyz Republic in 2001-2011

year	Average monthly wage (som)	Minimum level of co-payment (som)	Percentage of the average wage (%)
2001	1 455	215	14,8
2002	1 684	215	12,8
2003	1 916	215	11,2
2004	2 240	215	9,6
2005	2 613	215	8,2
2006	3 270	215	6,6
2007	3 970	215	5,4
2008	5 378	215	4,0
2009	6 161	215	**3,5**
2010	7 189	215	**3,0**
2011	8 790	320	**3,6**

The co-payment is growing only nominally, however, its specific weight has stabilized and is even decreasing. The drop in the specific weight of co-payment is explained by an expansion of the SBP categories from 27 to 72 (people with 100% of privileges and with some privileges) and the unchanged size of the formal co-payment since 2001.

The sustainability of the health system is, to a significant extent, connected to the effectiveness of a funding system. The Single Payer system was introduced to split the health sector into the payer and providers. The Law “On the Single Payer in financing the health sector of the Kyrgyz Republic” specifies relevant legal and organizational frameworks. The health care financial policy and reforms should be promoted based on the influence of financing on the health system’s objectives.

In the Kyrgyz health system the State Benefits’ Package plays a key role in regulating the provision of medical services and access conditions.

In 2009 the Vice Prime-minister of the Kyrgyz Republic set forth a task to analyze a financial gap in the implementation of the State Benefits’ Package. This financial gap leads to a situation when patients acquire drugs at their own expense in the hospitals that are part of the Single Payer system.

Aiming at performing the above-mentioned task, Order #176 as of 21.04.09 of the Ministry of Health established a working group “On monitoring of accessibility of patients to drugs and medical goods in hospitals”. The findings of the working group on the financial gap in the implementation of the SBP were presented in the 2009 Health Summit with the participation of the donor community. The Summit officially announced that the financial gap in the SBP exists for all and makes up about 27,5%. The biggest burden of informal payments is related to procurement of drugs (43% of the total financial gap) and payments to medical staff (39% of the total financial gap).

This research proposes several options to reduce the existing financial gap:

Option 1. Subsequent increase of the health sector budget.

Option 2. Introduction of co-payment for privileged groups.

Option 3. 20% increase of co-payment.

2. METHODOLOGY OF THE RESEARCH

2.1 Goal and objectives of the research

This research is a follow-up of the work held in 2009. It is intended to study the existing situation in the area of medical service provision in hospitals of the Kyrgyz Republic within the State Benefits' Package. The research plans to identify the existing financial gap in the SBP's implementation at the hospital level.

Objectives:

1. Analysis of the MHIF's treated cases data base for 2009-2011;
2. Analysis of expenditures from the consolidated budget in health institutions for the treatment process based on reporting forms and information provided by HIs;
3. Analysis of procurement of medicines and medical goods, and monitoring of their accessibility for patients;
4. Analysis of managers' performance in health institutions.

2.2 Selection of regions and health institutions for the research

The following was selected for the research: three regions: Bishkek, Osh Oblast, Chui Oblast, and health institutions of different levels: national (the NH), Oblast (OIJCH, COJH), city (CCH#6 in Bishkek), and rayon (TH in Kara-Suu, TH in Sokuluk). A methodology for a factual calculation of expenses associated with a treated case in hospitals of different levels was developed for the sake of efficiency and transparency. At the same time the modules for analysis were also determined.

The overall samples for analysis made up 800 medical records (200 at each level), including:

Pyelonephritis – 50 medical records;

COLDs – 50 medical records;

Bronchial asthma – 50 medical records;

Hepatitis - 50 medical records.

The cost of drugs and medical goods in each medical record is estimated by unit and piece.

2.3 Methodology of the research and data collection

The methodology of this research is based on two approaches. The first one is about determining the size of under-financing of hospitals within the SBP based on the

findings of the integrated household survey in 2009-2010. The findings obtained by this survey relate to year 2009, therefore, in order to generate indicators for 2010 one had to use an extrapolation method.

The second method was about analyzing the performance of health institutions in the selected regions. The following was carried out for this purpose:

- The review of drugs and medical goods available at the time of research;
- Review of the situation of using the drugs and medical goods at the hospital's and patient's expense;
- Review of reasons for prescribing drugs and medical goods at the hospital's expense;
- Review of reasons for buying drugs by the patient himself;
- Review of distribution of funds in the hospital, including for drugs and medical goods;
- Review of the use of drugs in clinical and para-clinical units;
- Review of average cost of meals.

A preparatory analytical work with the data base of cases treated in 2009-2011was performed. The re-grouping and modeling of these cases with the account of clinical homogeneity and costs at different levels provided an opportunity to define some nosologies for subsequent monitoring and analysis at the national, oblast, city, and rayon level. While the 2009 research looked at peptic ulcer, gastritis, cholecystitis, appendicitis, the analysis of the data base of treated cases demonstrated a tendency of reduced hospitalizations on these nosologies.

Table2. Hospitalizations on certain nosologies

Health institution	Peptic ulcer (K25)			Chronic gastritis (K29,2; K29,3; K29,4; K29,5)			Chronic cholecystitis (K81,1; K81,8; K81,9)		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
The National Hospital	59	49	40	247	165	105	272	138	70
City Clinical Hospital#6	6	6	12	0	1	0	0	2	0
Osh Interoblast Joined Clinical Hospital	27	24	15	17	6	1	65	34	25
Kara-Suu Territorial Hospital	10	11	1	6	28	6	90	36	17

Health institution	Peptic ulcer (K25)			Chronic gastritis (K29,2; K29,3; K29,4; K29,5)			Chronic cholecystitis (K81,1; K81,8; K81,9)		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
Sokuluk Territorial Hospital	16	14	14	5	6	3	67	58	36
Chui Oblast Joined Hospital	63	44	25	6	9	3	50	30	40

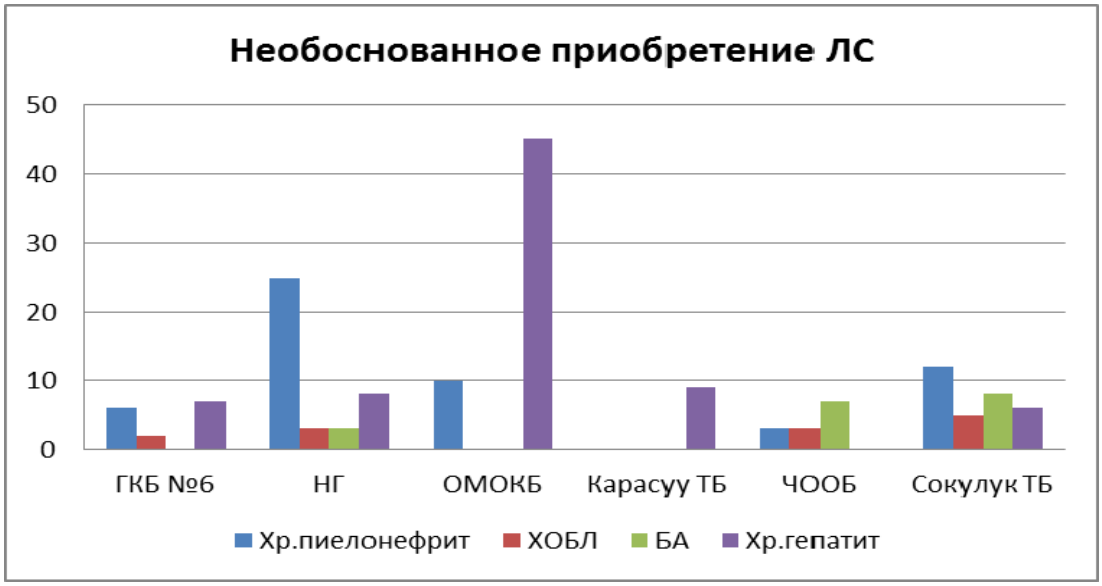
For the sake of this research it was decided to take some nosologies that are not complicated and should be treated at the outpatient level, as per clinical protocols:

- pyelonephritis,
- chronic obstructive lung diseases,
- bronchial asthma,
- hepatitis.

A matrix on these nosologies was created. There was also an analysis of reasons for prescribing and purchasing drugs and medical goods by hospital patients, and polypharmacy on each of the nosologies (800 medical records).

As such, in each medical record's prescription the medicines were marked as "provided by hospital", and in cases when there was no such note it was assumed that they were purchased by patients at their own expense.

Figure 1. Unjustified procurement of medicines

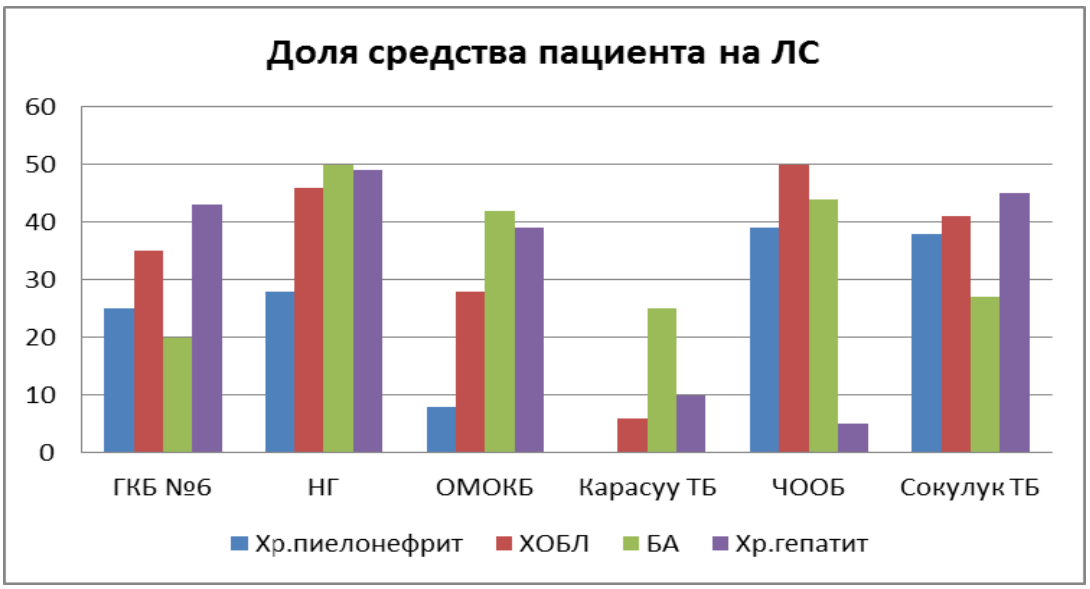


From left to right: CCH#6, the National Hospital, OIJCH, Kara-Suu TH, COJH, Sokuluk TH.

Blue: chronic pyelonephritis, red: chronic obstructive lung disease, green: bronchial asthma, purple: chronic hepatitis

We have calculated the cost for drugs and medical goods at the patient's expense: the number of ampoules, tablets, medicinal bottles, syringes, and dropper sets were multiplied by the number of days, and then the total cost of drugs and medical goods at the patient's expense was calculated. For each nosology the total cost of drugs and medical goods paid by the patients was calculated and then the cost for all patients was totaled. The next stage was to calculate the average amount of cost for drugs and medical goods for each nosology: the total cost of drugs and medical goods paid by the patients was divided by the number of patients that have acquired drugs and medical goods at their own expense.

Figure2. The proportion of patient's funds in the acquisition of drugs

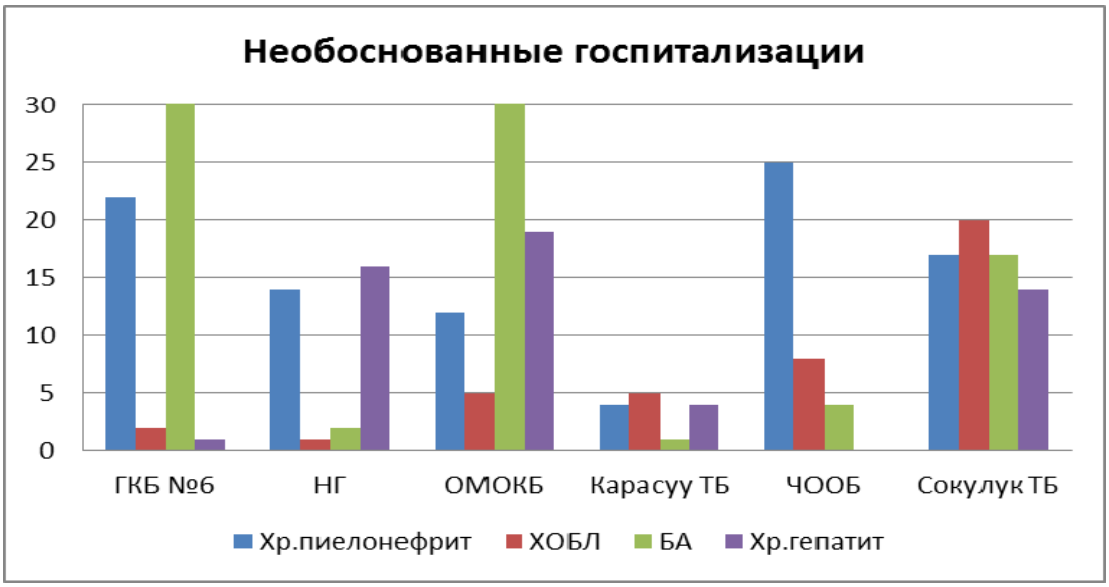


From left to right: CCH#6, the National Hospital, OIJCH, Kara-Suu TH, COJH, Sokuluk TH.

Blue: chronic pyelonephritis, red: chronic obstructive lung disease, green: bronchial asthma, purple: chronic hepatitis

Also the hospital costs were estimated. Based on acquisition of drugs and medical goods by the hospital patients, the purchase of drugs and medical goods was analyzed, along with the harmonization of their accessibility for the hospital patients in terms of the costs incurred by the patients when treated in hospital.

Figure3. Unjustified hospitalizations

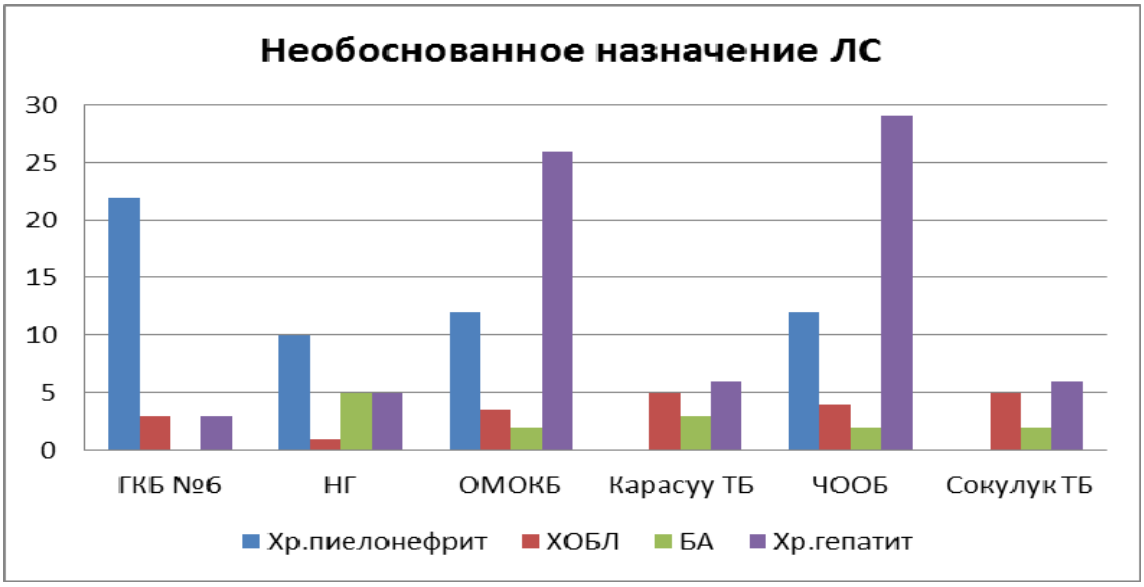


From left to right: CCH#6, the National Hospital, OIJCH, Kara-Suu TH, COJH, Sokuluk TH.

Blue: chronic pyelonephritis, red: chronic obstructive lung disease, green: bronchial asthma, purple: chronic hepatitis

One can note a disproportion and a deficit of the allocated funding. Next steps include specific actions such as the analysis of reasons for prescribing drugs in hospital as per the diagnosis in each medical record and nosology.

Figure 4. Unjustified prescriptions of drugs



From left to right: CCH#6, the National Hospital, OIJCH, Kara-Suu TH, COJH, Sokuluk TH.

Blue: chronic pyelonephritis, red: chronic obstructive lung disease, green: bronchial asthma, purple: chronic hepatitis

Next steps included the analysis of reasons for prescribing drugs in hospital as per diagnosis in each medical record and nosology. A retrospective analysis of each medical card, that was carried out with a focus on prescribed drugs that had been provided by the hospital and those purchased by patients and on direct and indirect fixed costs associated with treating patients, helped to come up with average actual costs per treated case in all clinical units per a health institution. We also considered such parameters of the treatment outcomes as the length of hospitalization, complexity of the case, adherence to minimum standards against actual costs of the treated case and the approved amounts, and the reasons for hospitalization. As we know, the number of hospitalizations is growing from year to year, including for the privileged categories of patients.

Figure 5. Number of treated cases, 2005-2011, including patients with privileges

Green: total treated cases, red: treated privileged categories

In determining average actual expenses per one treated case and aiming at avoiding the distortion of actual amounts we excluded the costs for capital repairs and acquisition of equipment from the total expenditures.

3. TENDENCIES IN FINANCING THE HEALTH SYSTEM FROM 2000 TILL 2010

The Kyrgyz health system has three main funding sources: public, private, and external financing. The state funding is provided by the state budget (republican and local budgets) replenished by tax revenue, and also by the Mandatory Health Insurance Fund replenished by contributions from the payroll fund. The private funds include out-of-pocket cash payments of households. The external funding is represented by the funds provided to the Kyrgyz health system by international organizations.

The *republican budget's* funds are deposited:

- To the Ministry of Health that in its turn funds (a) the tertiary level institutions; (b) boarding and other care facilities; (c) sanitary and preventive services and institutions; (d) administrative expenses, (e) other health related services (e.g. education).
- To other ministries and agencies that finance medical institutions managed by them (e.g. the Military Hospital of the Ministry of Defense).
- The MHIF pools and distributes the funds to the oblasts for financing the primary and secondary health care levels and also the MHI funds from the republican budget and the Social Fund.

At present the local budget financing is done only from the Bishkek city budget. This is explained by the fact that in 2006 there was a transfer from the four-tier budget to the two-tier one based on the law "On financial and economic basis of self-governance" as of September 25, 2003. In this context an agreement was achieved to transfer funding from the oblast level to the republican level.

The mandatory health insurance contributions are pooled in the MHI Fund and they are primarily used for the implementation of the State Benefits' Package and also for MHI additional package intended to provide drugs to the insured population.

Private expenses in Kyrgyzstan are mostly represented by the *households' payments.* Households make cash payments for the received services both at the primary and the secondary health care levels. This type of payments may be both formal (co-payment, or payment according to the list of rendered services) and informal. However, the biggest part of payments is spent to purchase drugs at the outpatient level.

Starting from 2006 some funds of international donors started to come in within the sector wide approach (SWAp) intended to pool all donor funding to support the health sector. The following international organizations provide funding within SWAp: WB, DfID, KfW, SDC, SIDA. The remaining part represented by the parallel funding is spent on different projects in the health sector. This report includes funds received through both SWAp and the parallel funding.

Table 3. Total health sector expenditures

	2000	2005	2006	2007	2008	2009	2010
Total health sector expenditures (mln. som)							
Budget	1 248,2	2 147,6	2 421,0	2 966,9	3 873,0	4 809,1	6 554,2
MHIF	105,1	254,5	466,9	704,469	476,8	682,6	813,2
Private	1 521,4	3 490,7	3 921,9	4 398,4	4 823,2	5 356,6	5 671,7
External shared funding			252,6	529,7	409,1	943,2	823,5
External parallel funding				519,8	709,0	683,4	851,7
Total	**2 874,7**	**5 892,8**	**7 062,4**	**9 119,2**	**10 291,2**	**12 474,8**	**14 714,4**
As a percentage of total health sector expenditures							
Budget	43,4%	36,4%	34,3%	32,5%	37,6%	38,6%	44,5%
MHIF	3,7%	4,3%	6,6%	7,7%	4,6%	5,5%	5,5%
Private	52,9%	59,2%	55,5%	48,2%	46,9%	42,9%	38,5%
External shared funding			3,6%	5,8%	4,0%	7,6%	5,6%
External parallel funding	Н/Д			5,7%	6,9%	5,5%	5,8%
Total	**100,0%**	**100,0%**	**100,0%**	**100,0%**	**100,0%**	**100,0%**	**100,0%**
As a percentage of GDP							
Budget	1,9%	2,1%	2,1%	2,1%	2,1%	2,4%	3,1%
MHIF	0,2%	0,3%	0,4%	0,5%	0,3%	0,3%	0,4%
Private	2,3%	3,5%	3,5%	3,1%	2,6%	2,7%	2,7%
External shared funding			0,2%	0,4%	0,2%	0,5%	0,4%
External parallel funding	Н/Д			0,4%	0,4%	0,3%	0,4%
Total	**4,4%**	**5,9%**	**6,2%**	**6,5%**	**5,6%**	**6,4%**	**6,9%**

Notes:

1) *When estimating the indicators for private funding of health we used the data of ИОДХ for 2009 and we adjusted the data for 2007-2010 on this basis.*

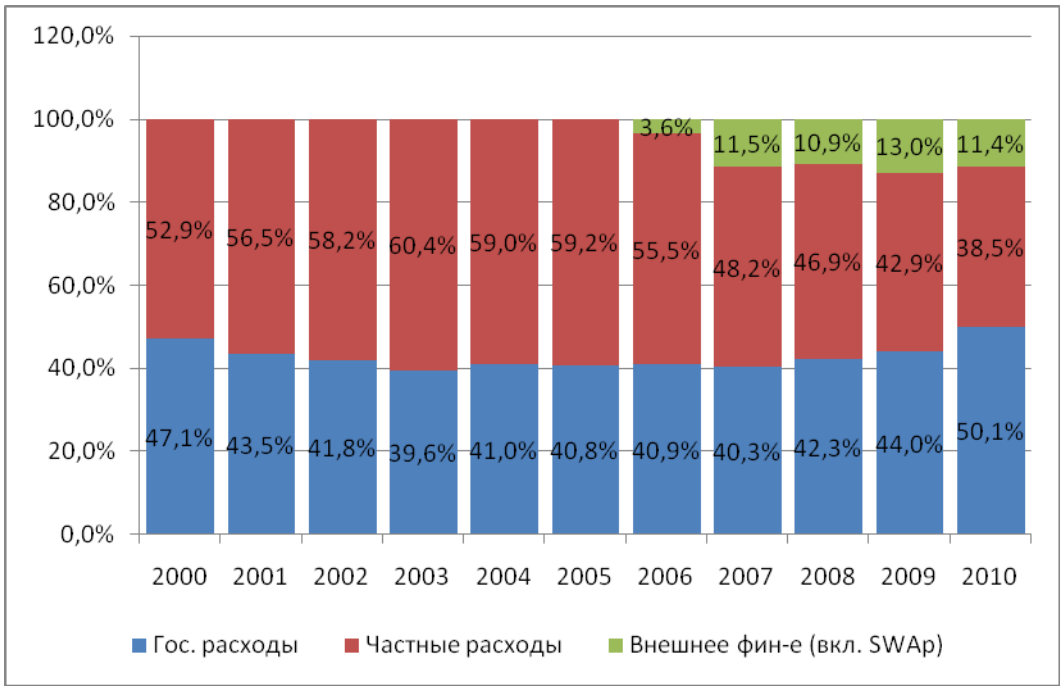
Over the period from 2000 till 2010 the total health expenditures grew from 2,9 to 14,7 billion som, which means a 5 times increase in nominal terms. As a result the health expenditures as a percentage of GDP grew from 4,4% to 6,9% correspondingly (Table 3).

In 2010 the state funding (including the MHI funds) comprised 3,5% of GDP, as compared to 2,1% in 2000, and the private funds made up 2,7% as opposed to 2,3% in 2000. One needs to note that this indicator reached as high as 3,7% in 2005 and 2006 and starting from 2007 one can see a downward trend. As regards the external funding, it comprised less than 1% of GDP.

This trend of growing expenditures for health, especially in part of state financing, is positive. There has been a number of studies of the progress of reforms carried out under the Manas Program noting a series of successes in the financing and restructuring areas, however, demonstrating that reforms were happening in the context of insufficient funding. The insufficiency of funding for the health sector restrained the full capacity of reforms in terms of health and financial protection outcomes.

Until 2008 the structure of total health expenditures was dominated by private expenses of the population with a sustainable growth dynamics from 2000 till 2005 (from 52,9% to 59,2%). However, starting from 2006 a share of private expenses started to decrease having achieved 38,5% of the total health expenditures in 2010. This situation is caused by a number of reasons: on one hand, the total health expenditures in 2007-2010 were expanded due to the external funding which made up over 11% of the total health expenditures in 2010. On the other hand, the private expenses in 2000-2003 were increasing much faster (an average 15,4% per annum) than the state expenditures (an average 4,3% increase per annum) in real terms, thus, the share of private expenses grew to 60,4% of the total health expenditures. However, staring from 2004 until 2010 the level of state expenditures accelerated relative to the private ones (a 13% average annual growth) while the private expenses did not grow over this period in real terms, thus, leading to a reduction of private expenses in the total health expenditures. As a result in 2010 the share of state expenditures for health exceeded the one of the private expenses for the first time ever (50% versus 38,5%).

Figure 6. Total expenditures in the health sector, in %



Blue: state expenditures, red: private expenditures, green: external funding (inclusive of SWAp).

The smallest part in the health sector financing is represented by the funds received from international organizations, namely, a little more than 11% of the total health sector expenditures.

4. CASH PAYMENTS IN THE HEALTH SECTOR

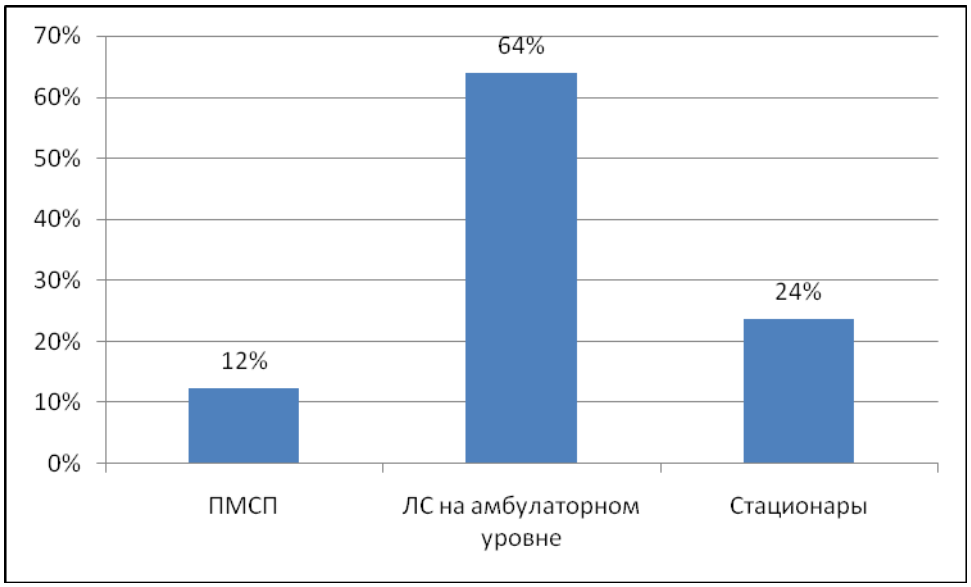
In 2010 the out-of-pocket cash payments in Kyrgyzstan made up about 40% of the total funds received by the health sector. There are two general categories of official payments. The first one is “exclusively” private transactions, such as procurement of medicines from private pharmacies or payments done by the patients to their private doctors. The second on is the official co-payment done for specialized services at the outpatient level, for hospitalization, and the additional drugs’ package at the outpatient level. Informal payments include the ones made directly to the medical staff (mainly, doctors) in state run health institutions and payments for supplies (most often, drugs and surgical materials) or services that should be provided free of charge as part of treatment.

The out-of-pocket cash payments are the most regressive source of funding. The bigger is the share of out-of-pocket payments in the overall health sector funding, the lesser financial protection is enjoyed by a household.

All health care related expenses of the population could be split into three main categories:

1) Expenses associated with hospital services;
2) Expenses associated with outpatient services;
3) Expenses related to medicines at the outpatient level.

Figure 7. Cash payments done by the population, in %



12% - PHC, 64% - drugs at the outpatient level; 24% - hospitals

The biggest share in total private expenditures of the population is represented by expenditures associated with the acquisition of drugs at the outpatient level that made up 64% in 2010 while the expenditures at the hospital and PHC levels comprised 24% and 12% correspondingly.

This research focused on the private expenses of population at the hospital level.

As a rule, the hospitalization represents large expenses for the majority of households. This section reviews two types of expenses: direct expenses associated with cash payments and indirect expenses associated with the attempt to replace some expenses by the support of family members.

It is generally accepted that the patient's family compensate some of the expenses by means of providing meals and bed linens as well as such care as bathing and feeding of their sick family member. Some families take on other responsibilities administering taking medicines and making injections. The analysis of data demonstrated that about 20% of the hospitalized respondents are being taken care of by their family members.

More frequently the need to provide medical goods was registered with families whose members were treated by oblast hospitals (62%) and republican hospitals (55%). Only 18% of patients treated in private clinics bought additional medical goods. The level of procurement of medicines by patients is higher than the average almost in all hospitals, except maternity houses (41%) and private clinics (31%).

In total 54,5% of the hospitalized respondents noted that they had made additional payments to the medical staff, including 59% of those who did not make a co-payment and 52% of those who did.

The review of data by social and economic status of patients shows that the frequency of informal payments to the medical staff by well-off and poor patients is almost the same. In absolute terms the amounts of payments are considerably different depending on the economic status: better off people pay 4 times more than the poor.

The majority of payments to the medical staff were not done upon the initiative of the patient and his/her relatives, but rather as requested by the doctor, meaning that these payments were informal. Information about that the surgeons and anesthesiologists call a price for an operation themselves finds its confirmation: only 4%

of the respondents who had made payments noted that that was an appreciation gift, and 86% said that the doctor asked them to make this payment, and 9% mentioned that the doctor hinted the payment. The payments to obstetricians and gynecologists are most often done upon the own initiative of patients and the desire to express appreciation.

Overall, the overwhelming majority of the hospitalized made any kind of payments in hospitals. There still persists a high level of informal payments to the medical staff, for medicines, and meals. One has to recognize that the practice of buying extra food is a tradition than a forced measure in the local context. While the food related expenses comprise 26% of all expenses related to hospitalization, this aspect is not considered when analyzing the households' expenses for health services.

Table 4. Cash payments in hospitals in 2010

	Mln.som	%
Meals	284,7	26%
Medicines	406,0	36%
Sundries	41,1	4%
Medical workers	384,5	34%
Total	**1 116,3**	**100%**

Given the food related expenses are not considered when determining the informal payments of population at the hospital level, the figure for these expenditures in 2010 makes 889,9 million som. The expenditures of the state budget for financing inpatient institutions within the State Benefits' Package comprised 1 664,6 million som in 2010. As a result the total expenditures of the hospital level made up 2 554,5 million som. **Based on the performed calculations, the financial gap of the State Benefits' Package Program at the inpatient level comprised 34,8% versus 27,5% generated by the preceding research.**

Table 5. The SBP financial gap in 2010

	2010
State expenditures for hospitals within SBP, in million som	1664,6
Informal payments of the population, in million som	889,9
Total expenditures for hospitals	**2 554,5**
SPB financial gap	*34,8%*

5. FINDINGS OF THE PERFORMANCE REVIEW OF HEALTH INSTITUTIONS

Reporting forms #2 and #4 “Reports on the execution of budget, MHI funds, co-payment, humanitarian aid, and special funds in 2011” were analyzed and tables were generated based on the analysis of the financial reports and data from health institutions.

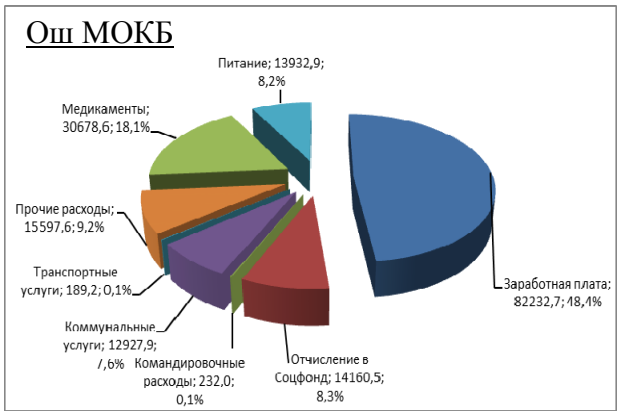
Below one can see the diagrams to determine the specific weight of each expenditure item in the overall actual expenditures of health institutions.

The analysis shows that the main expenditure item of the consolidated budget is represented by salaries making up from 48% to 56% in the surveyed institutions. The expenses for medicines vary from 17% to 21% with the exception of Sokuluk territorial hospital where the expenditures for medicines make up only 8%.

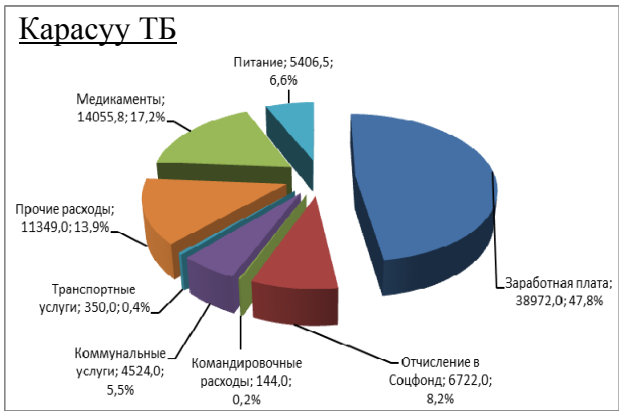
In general, the direct expenses of the patient (medicines and meals) in the surveyed hospitals comprised from 13,5% in Sokuluk TH to 28% in the National Hospital. This situation speaks of the fact that the expenditures per patient are not reaching the mark stipulated in Manas Taalimi Program where this indicator was supposed to be no less than 30% of the total expenditures of inpatient institutions.

Figure 8. Analysis of expenditures of the consolidated budget in 2011 (in thousand som)

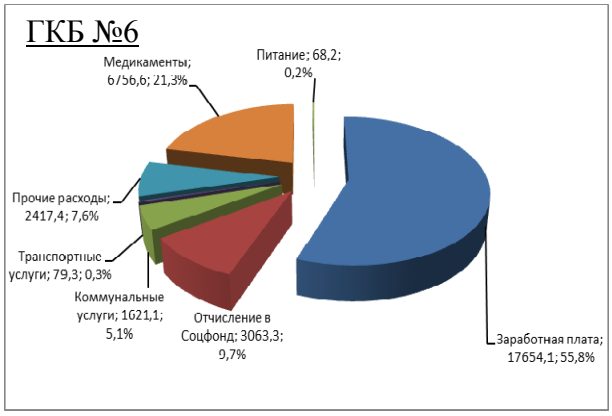
Total consolidated budget in Osh IJCH is 169 951,4 thousand som



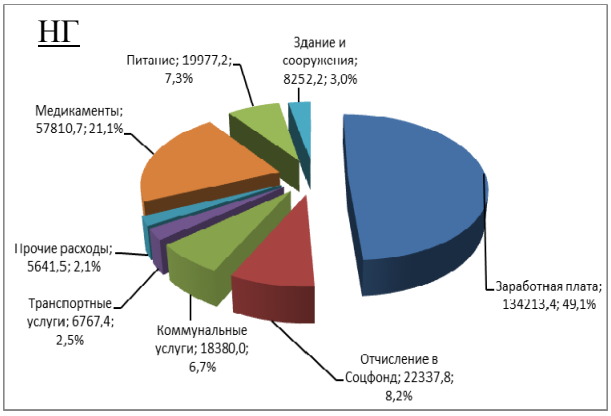
Total consolidated budget in Kara-Suu TH is 81 523,3 thousand som



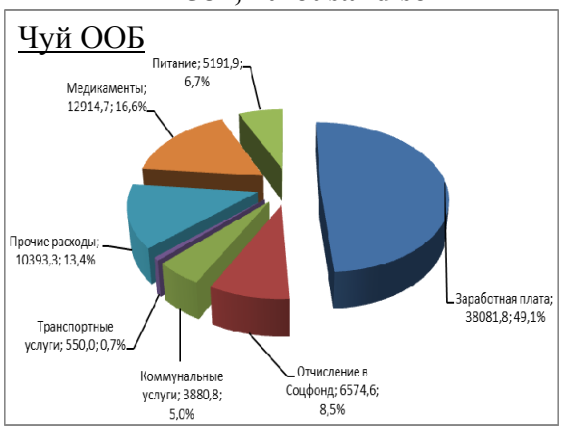
Total consolidated budget of CCH#6 is 31 660,0 thousand som



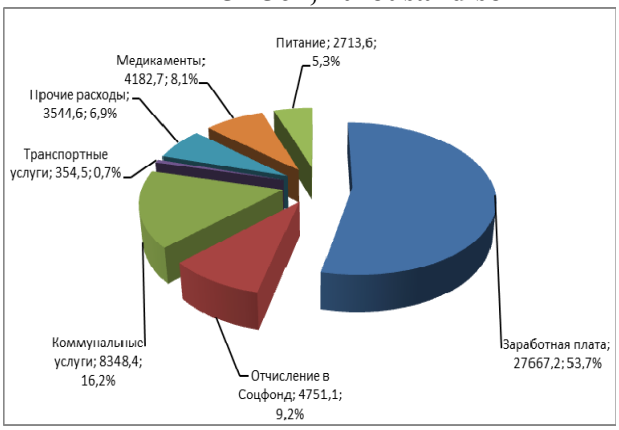
Total consolidated budget of the National Hospital is 273 380,2 thousand som



Total consolidated budget of Chui OJH is 77 587,1 thousand som



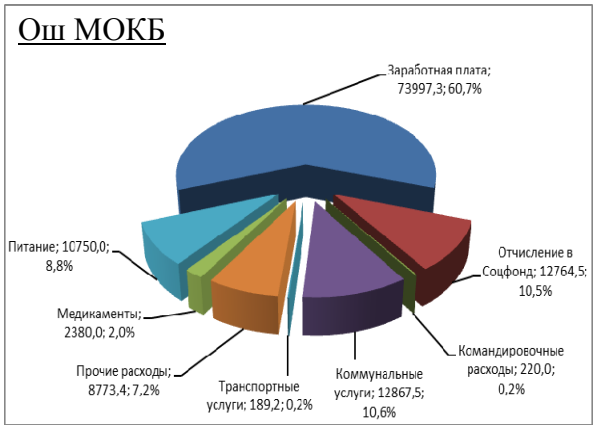
Total consolidated budget of Sokuluk TH is 51 562,1 thousand som



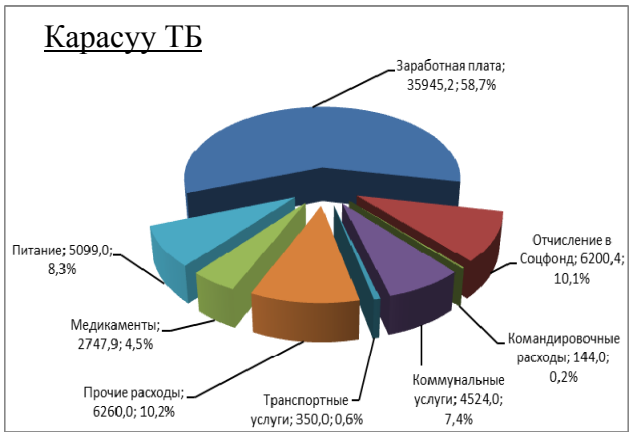
The republican budget directed the following towards the SBP: the guaranteed wage and Social Fund contributions, utilities services, transportation services, and other expenses while the expenses for meals and medicines have a relatively small share.

Figure 9. Analysis of expenditures from the republican budget in 2011 (in thousand som)

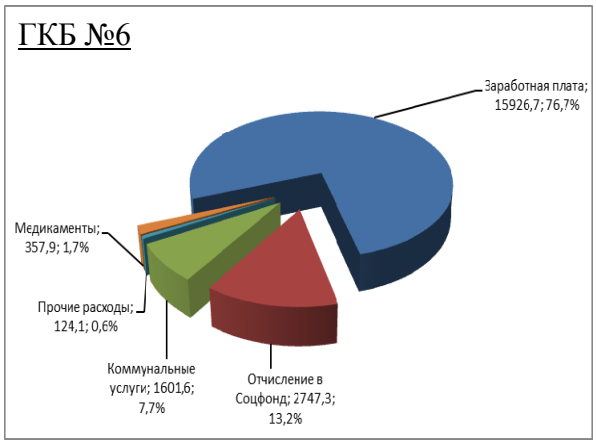
Total republican budget for the Osh IJCH is 121 941,9 thousand som



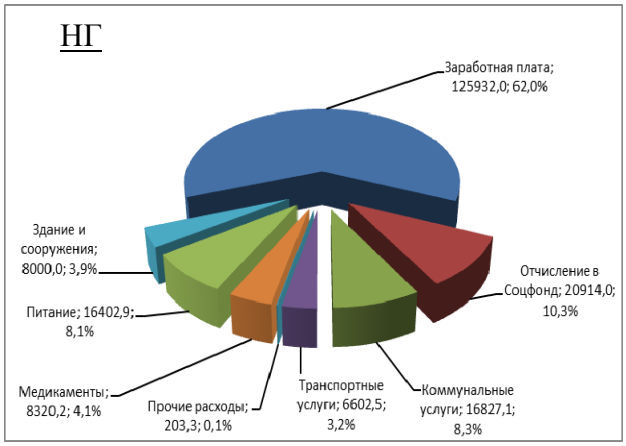
Total republican budget for Kara-Suu TH is 61 270,5 thousand som



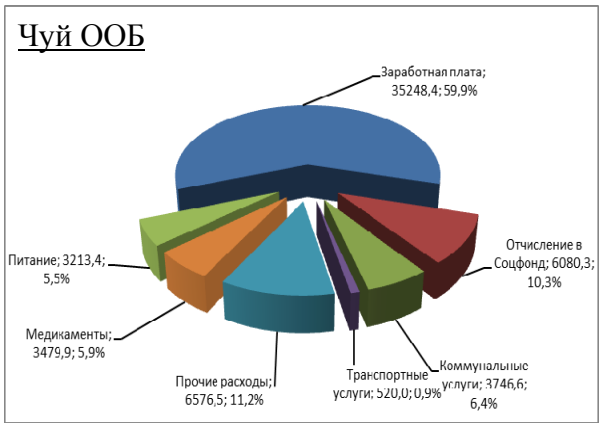
Total republican budget for CCH#6 is 20 757,6 thousand som



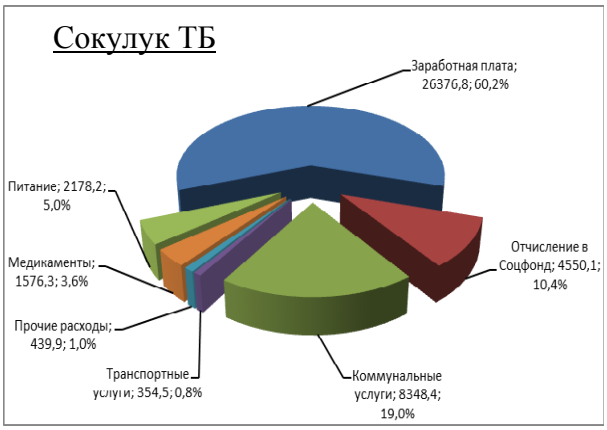
Всего Total republican budget for the NH is 203 202,0 thousand som



Total republican budget for Chui OJH is 58 865,1 thousand som



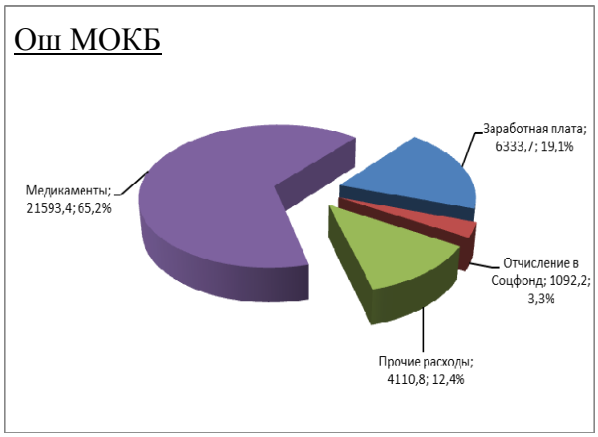
Total republican budget for Sokuluk TH is 43 824,2 thousand som



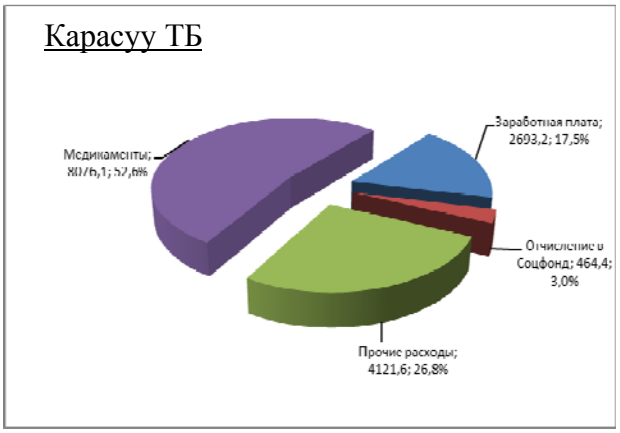
At the same time, the funds of mandatory health insurance are, as a matter of priority, allocated to finance direct costs per patient. The MHI expenditures for drugs comprised from 40% in Sokuluk Hospital up to 68% in the National Hospital while the payroll expenditures were as low as 20%.

Figure 10. Analysis of MHI expenditures in 2011 (in thousands som)

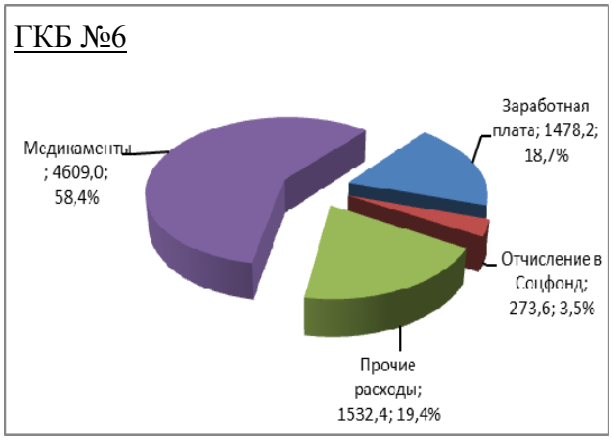
Total generated: 34 537,7 thousand som
Total financed: 33 130,1 thousand som



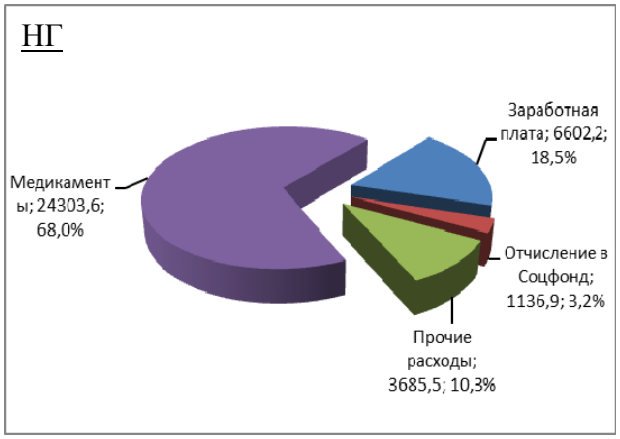
Total generated: 14 248,8 thousand som,
Total financed: 15 355,3 тыс.сом



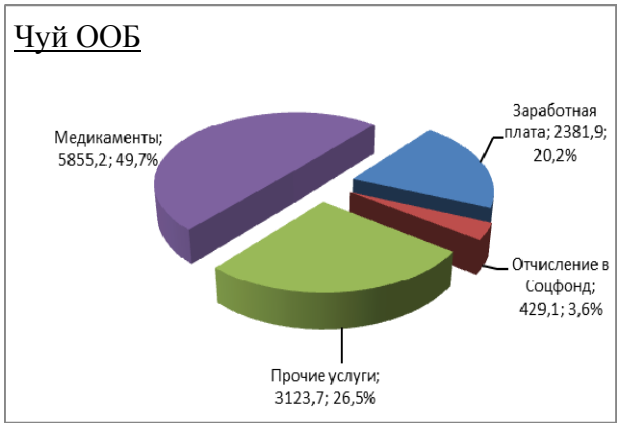
Total generated: 8 523,8 thousand som,
Total financed: 7 342,7 thousand som



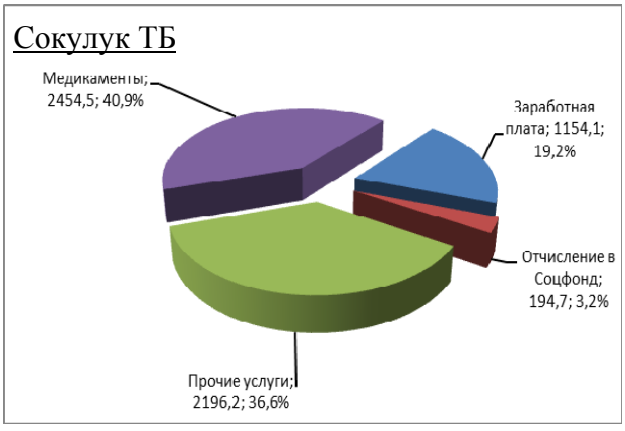
Total generated: 34 791,4 thousand som,
Total financed: 29 319,5 thousand som



Total generated: 13 272,5 thousand som,
Total financed: 11 789,9 thousand som



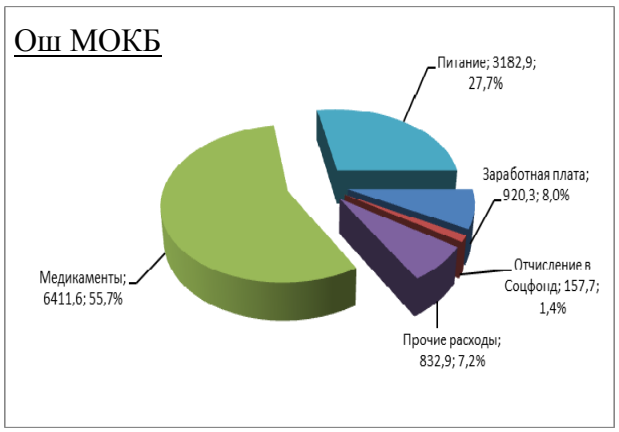
Total generated: 6 221,6 thousand som,
Total financed: 5 999,5 thousand som



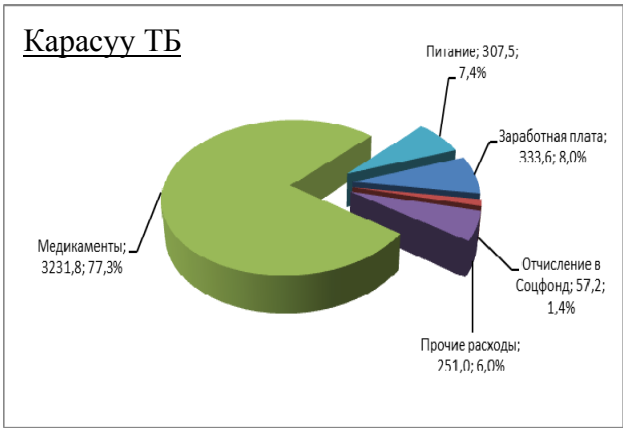
The co-payment funds (as per the available instructions to distribute the co-payment funds by expenditure items) are as a matter of priority spent on covering the direct costs per patients, same as in case of the MHI funds. As such, almost all surveyed hospitals directed the co-payment funds towards provision of patients with medicines. The share of these expenditures comprised from 54% to 80% of the total accumulated funds with the exception of the Sokuluk Hospital where the co-payment financed only 9% of medicines with more than a half of the co-payment funds being spent on financing other expenses.

Figure 11. Analysis of expenditure items covered by co-payments in 2011 (in thousand som)

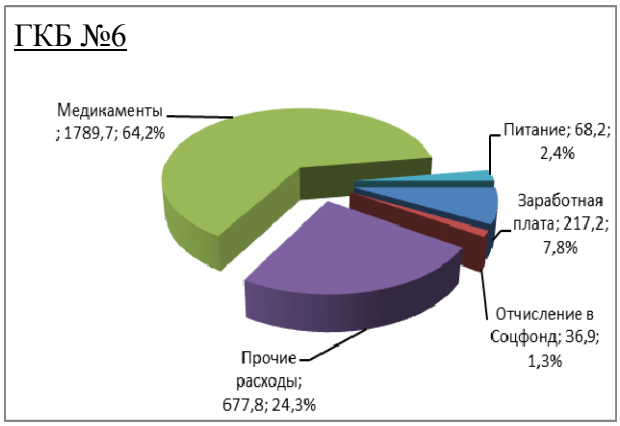
Osh IJCH
Total received: 11 505,4 thousand som,
Total spent: 11 505,4 thousand som



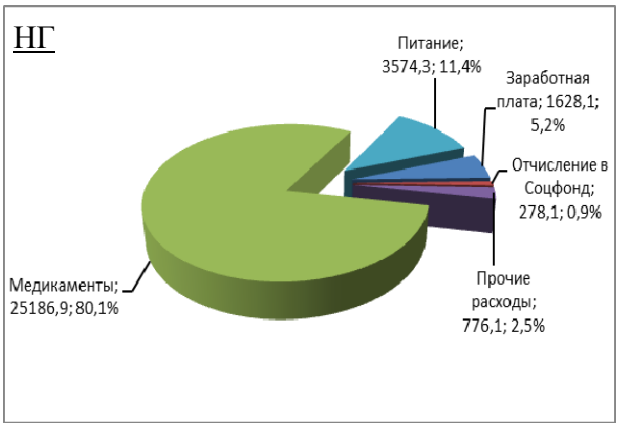
Kara-Suu TH
Total received: 4 185,5 thousand som
Total spent – 4 181,1 thousand som



CCH#6
Total received: 2 860,7 thousand som,
Total spent: 2 789,8 thousand som

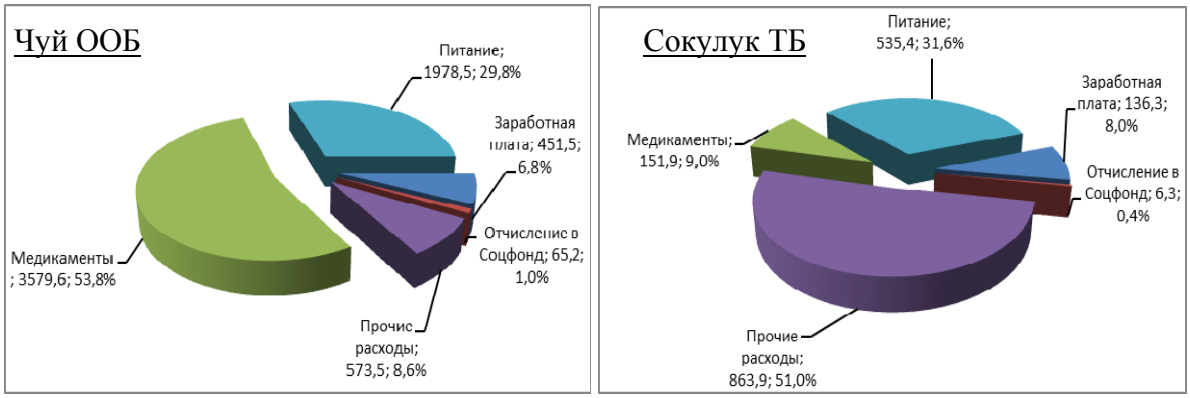


The NH
Total received: 31 462,8 thousand som,
Total spent: 31 443,5 thousand som



Chui OJH
Total received: 7 123,8 thousand som,
Total spent: 6 648,3 thousand som

Sokuluk TH
Total received: 1 693,2 thousand som,
Total spent: 1 693,8 thousand som

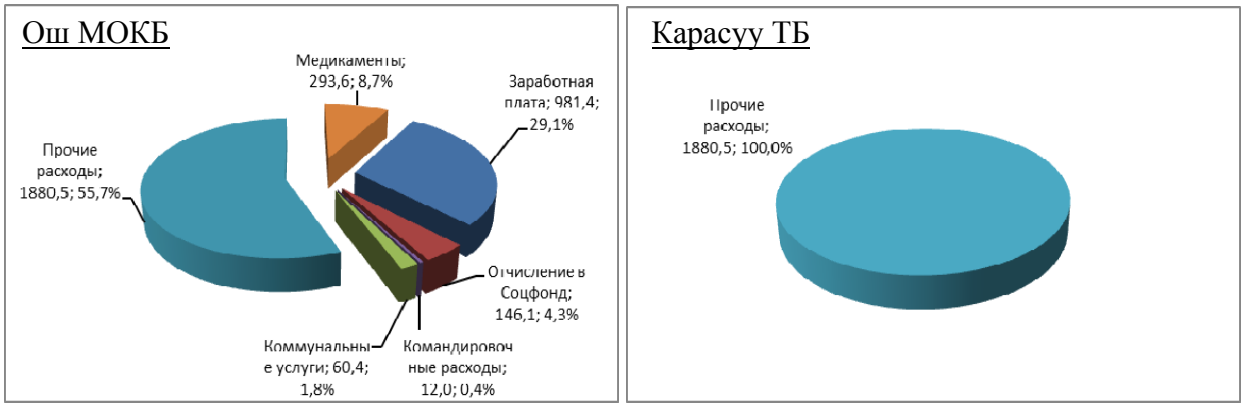


As regards special means, they were primarily allocated to cover other expenses and pay for utilities.

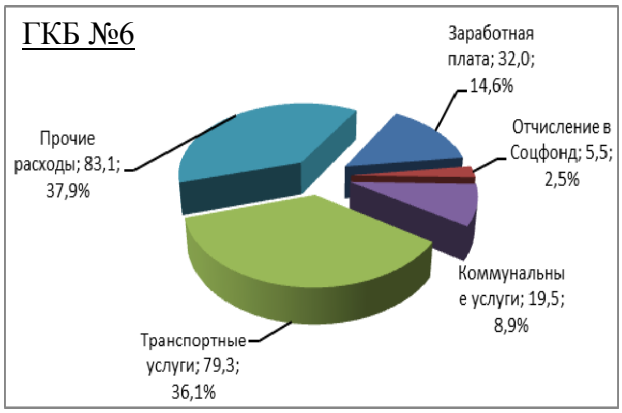
Figure12. Analysis of spending special means in 2011 (in thousand som)

Osh IJCH
Total received: 3 374,0 thousand som,
Total spent: 3374,0 тыс.сом,

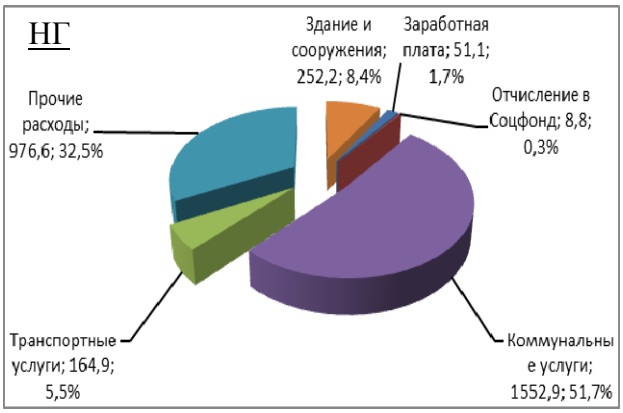
Kara-Suu TH
Total received: 718,9 thousand soms,
Total spent: 716,4 thousand som



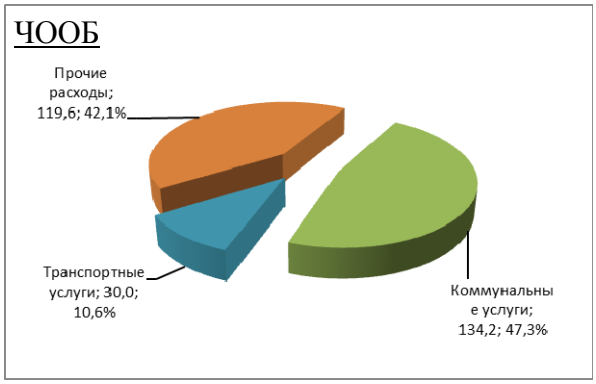
ССН#6
Total received: 220,0 thousand som,
Total spent: 219,4 thousand som



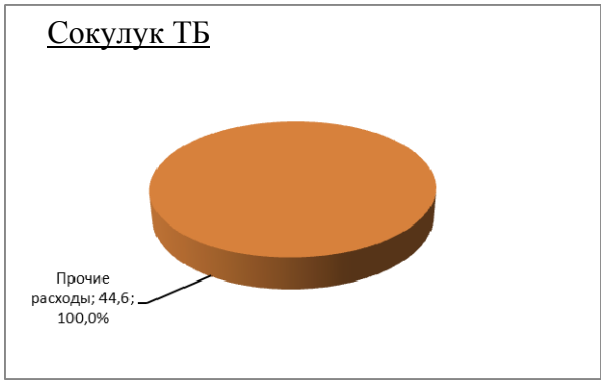
The National Hospital
Total received: 3 476,7 thousand som,
Total spent: 3 006,5 тыс.сом,



Chui OJH
Total received: 311,1 thousand som,
Total spent: 283,8 thousand som

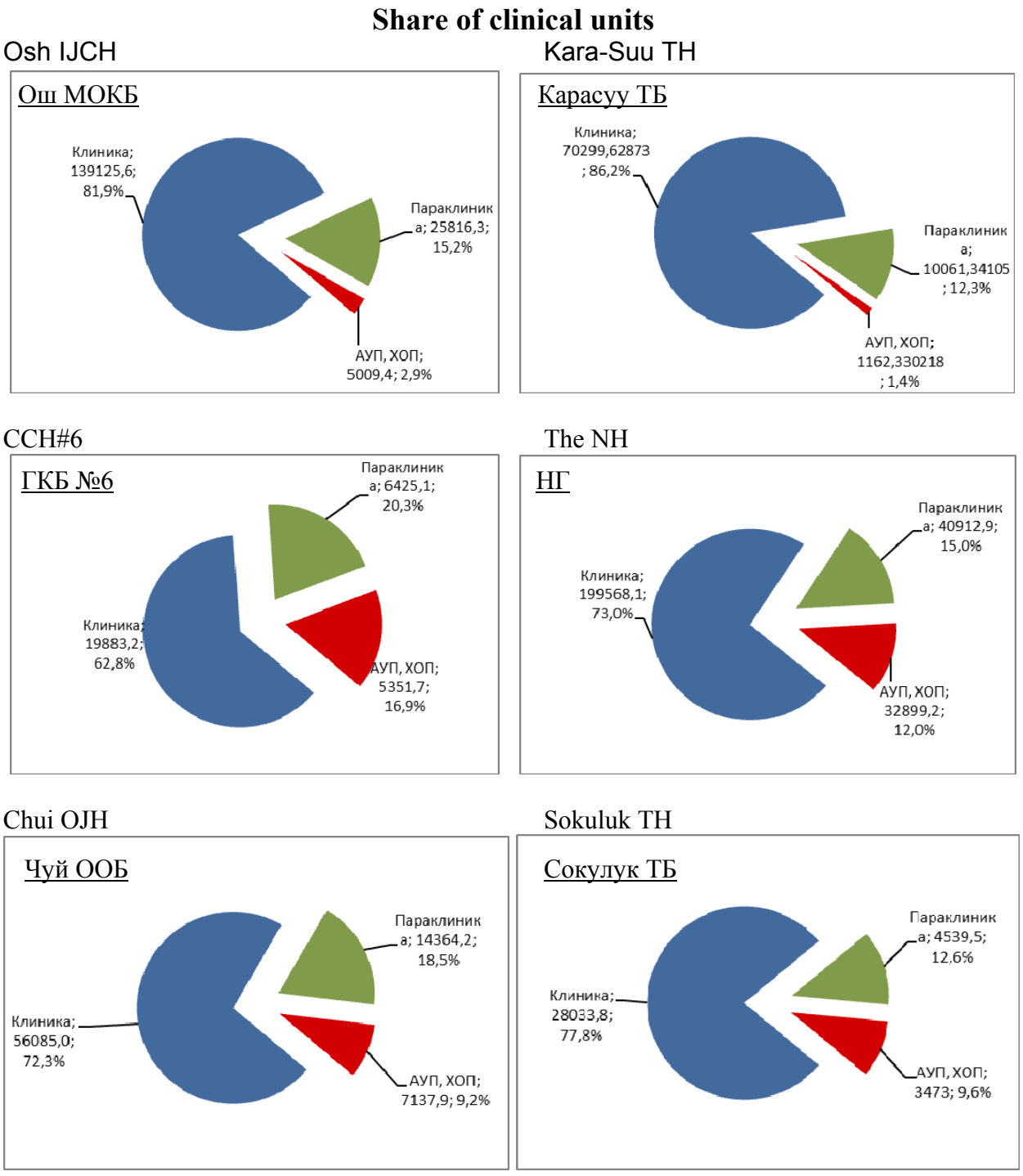


Sokuluk TH
Total received: 52,7 thousand som,
Total spent: 44,6 thousand som



As regards distributing actual costs by different units of hospitals, then one can see that he majority of finances is consumed by clinical units which on average comprise more than 60% in all health institutions. The smallest costs are associated with administrative and management units (AMUs) and economic units (EUs).

Figure 13. Analysis of expenses as distributed among clinical units, para-clinical units, AMUs, and EUs

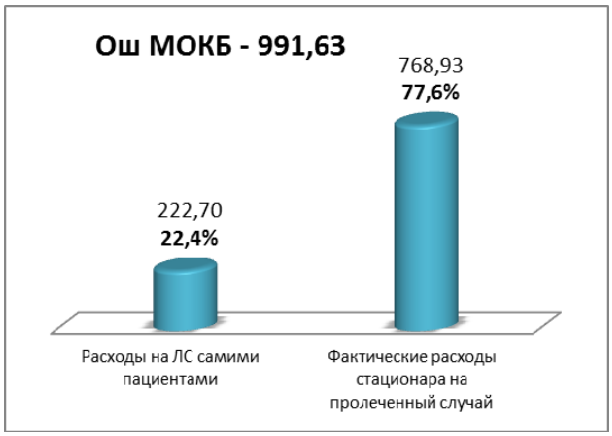


According to the analysis, the average actual expenses of HIs for medicines per one treated case make up from 520,10 som till 800 som on average, while the medicines related expenses of the patients themselves vary from 176,03 som to 949,75 som. The approved cost per one treated case as paid by the consolidated budget of a

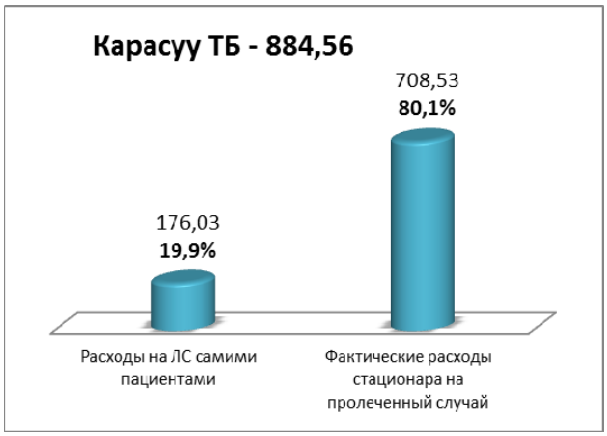
HI is 3550 soms (1550 soms from the republican budget; 1200 som from the MHIF; 800 som as an average level of co-payment). Without the consideration of diagnosis related groups the actual specific weight of costs directly spent on treating HI patients comprises 18,6% of the total funds allocated to the HI for the provision of medical services.

Figure 14. Total actual average costs per one treated case as paid by patients themselves (the first column from left to right) and hospital (the second column), in som

Osh IJCH



Kara-Suu TH



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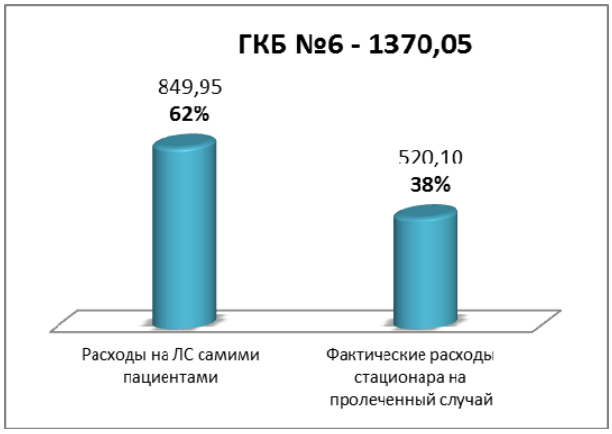
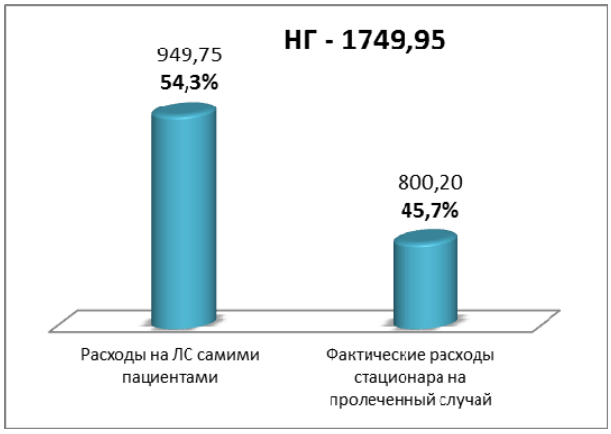
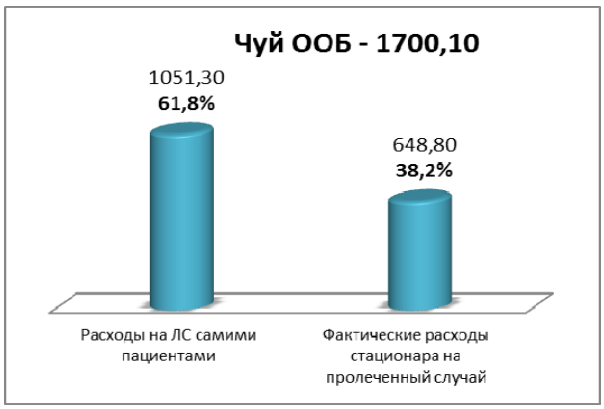


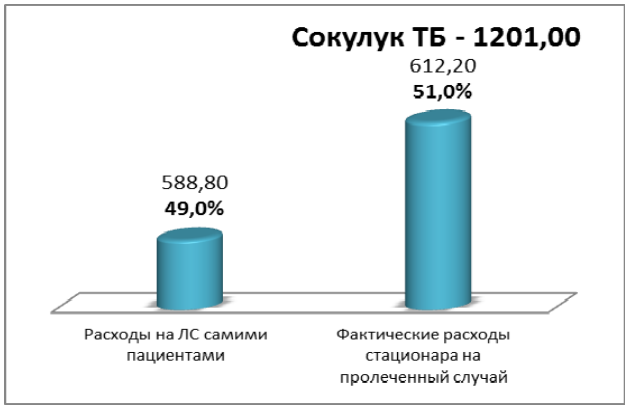
The NH



Chui Oblast JH



Sokuluk TH



Average costs per unit in health institutions were also analyzed.

110 clinical cases in 11 units were studied. The findings show that medicines-related costs per one hospital patient per day make the average of 277 som.

The biggest level of expenditures was associated with complicated obstetrical and gynecological pathologies making up about 906 som per day. In other units, such as vascular surgery, purulent surgery, and children's' surgery the costs varied from 150 to 600 som per day.

It is worth mentioning that MHIF reports for 2010 indicate that the republican budget covered 17 som of the costs associated with medicines while the consolidated budget paid 85 som per day.

Figure 15. Average cost of medicines per unit (per one patient per day, in som, August, 2011)

From top down: maternity house, vascular surgery, purulent surgery, neonatology, children's somatic, craniological unit, children's surgery, neurology unit, pathologies unit for newborns, gynecological unit (the estimated average of 277,71 som in the red box).

In line with the State Benefit Package Program a demand for medicines from the republican budget was defined as being equal to 1 billion 753 thousand som with the account of actual costs associated with patients.

The slide shows that the actual financing of medicines in hospitals for the 9 months of the current year comprised 74 million 735 som or 4,3% of the demand, and 162 million 618 thousand som in 2010.

Figure 16. Actual and projected costs of medicines, the republican budget, thousand som

Columns from left to right: actual costs in 2010, actual costs in 2011, the demand. Calculations: 277, 71 som (the estimated cost of medicines per one patient per day)*900 000 (approximate treated cases)*7 days of average treatment length=1749573,0 thousand som

A special attention needs to be paid to the number of privileged categories entitled to medical assistance at different health care levels.

The State Benefit Package envisages a number of privileges for a number of categories of patients based on social factors (veterans of war, labor veterans, liquidators of the Chrnobyl accident, pensioners older than 70 years of age, children up to 18 years of age, etc.) and clinical indicators (chronic patients, patients with paranoia, affective disorders of various origins, patients with epileptics, bronchial asthma, and terminal phase oncological patients).

The slide shows a tendency of increasing treated cases since 2001 with the medical services to the privileged categories being provided free of charge or with a minimum co-payment.

Meanwhile the number of citizens without privileges in receiving medical services and making co-payment is decreasing.

As the diagram shows the period from 2005 to 2010 sees an increase in the number of treated cases from 684,0 thousand to 936,0 thousand cases that are mostly represented by the patients from the privileged category.

For example, in 2005 the privileged categories comprised 45% (312,0 thousand) of treated cases while in 2010 this number grew to 64% (602,0 thousand).

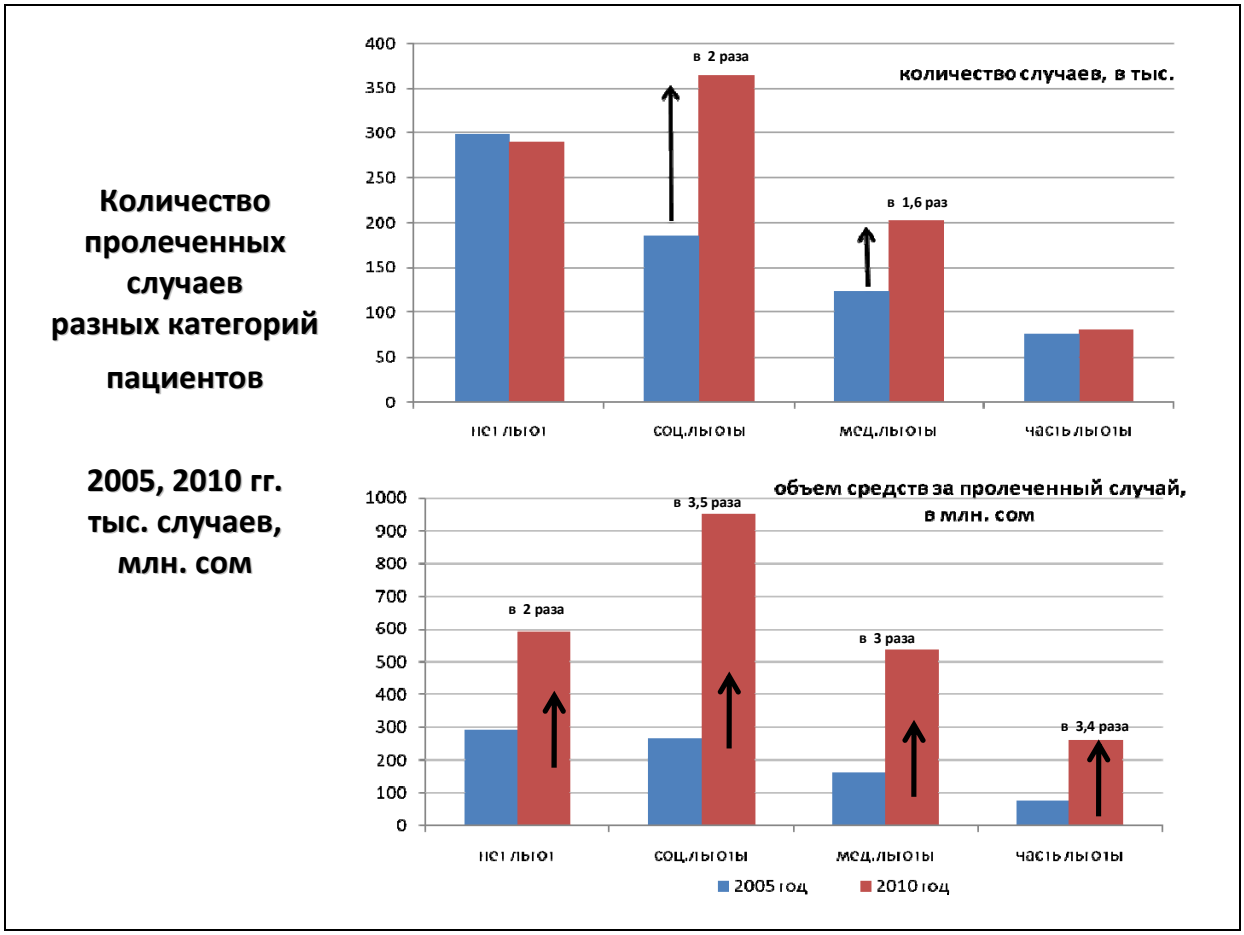
Figure 17. Total treated cases (light blue), including the privileged category (darker blue), in thousand people

As such, the category of people that did not enjoy privileges and made co-payment according to the SBP in 2010 made up 36% of all treated cases (334,0 thousand).

The review of the recent 5 years shows that the absolute number of treated cases among citizens without privileges has not changed while the number of patients enjoying social and medical privileges grew by 1,6 - 2 times.

At the same time, the amount of funds intended for paying for medical services for the above mentioned period grew by 3-3,5 times for privileged categories and only by 2 times for those who do not enjoy any privileges.

Рисунок 18. Treated cases of different categories of patients, 2005, 2010, in thousands of cases, in million som



From left to right: no privileges, social privileges, medical privileges, partial privileges. The top diagram: treated cases in thousands. The lower diagram: funding per treated case in million som. Blue: 2005, red: 2010.

An important component of treating patients is an appropriate and nutritive diet.

According to the nutritional norms per patient as based on Order of the Ministry of Health #214 as of 07.05.2004 “Instructions for using food products in treatment and prevention health facilities” the nutritional norm is 121,0 som per patient per day.

Table 6. Nutritional norm per one patient per day according to Order of the Ministry of Health #214 as of 07.05.2004 “Instructions for using food products in treatment and prevention health facilities”

№	Food items	Cost of food item per 1 kg as of 05.07.2011	General		Nephrology		Gastroenterology		Endocrinology		Children	
1	Meat (beef)	201,5	0,1	20,15	0,1	20,15	0,1	20,15	0,1	20,15	0,15	30,23
2	Butter	248	0,02	4,96	0,02	4,96	0,02	4,96	0,015	3,72	0,055	13,64
3	Oil	124	0,015	1,86	0,025	3,10	0,01	1,24	0,015	1,86	0,01	1,24
4	Dry milk	185	0,03	5,55	0,03	5,55	0,03	5,55	0,03	5,55	0,05	9,25
5	Sugar and confectionary	102,6	0,04	4,10	0,04	4,10	0,04	4,10		0	0,08	8,21
6	Grains and pasta	66,9	0,1	6,69	0,1	6,69	0,1	6,69	0,06	4,014	0,085	5,69

№	Food items	Cost of food item per 1 kg as of 05.07.2011	General		Nephrology		Gastroenterology		Endocrinology		Children	
7	Legumes	38,5	0,025	0,96	0,025	0,96	0,025	0,96	0,025	0,9625		0,00
8	Potatoes	28	0,4	11,20	0,4	11,20	0,15	4,20	0,4	11,2	0,35	9,80
9	Vegetables	37,25	0,2	7,45	0,2	7,45	0,15	5,59	0,3	11,175	0,4	14,90
10	Flour	35,8	0,025	0,90		0,00	0,02	0,72	0,01	0,358	0,005	0,18
11	Salt	12	0,006	0,07		0,00	0,006	0,07	0,006	0,072	0,006	0,07
12	Sour cream	160	0,01	1,60	0,01	1,60	0,01	1,60	0,01	1,6	0,025	4,00
13	Chicken eggs	6,5	0,5	3,25	1	6,50	1	6,50	1	6,5	1	6,50
14	Tomato paste	78	0,005	0,39	0,005	0,39	0,005	0,39	0,005	0,39	0	0,00
15	Bread	31	0,35	10,85	0,35	10,85	0,35	10,85	0,35	10,85	0,25	7,75
16	Cheese	250	0,015	3,75	0,015	3,75	0,015	3,75	0,02	5	0	0,00
17	Diet boiled sausage	235	0,02	4,70	0,02	4,70	0,02	4,70	0,05	11,75	0	0,00
18	Fruit juice	44	0,1	4,40	0,1	4,40	0,1	4,40	0,1	4,4	0	0,00
19	Fresh fruits	80	0,07	5,60	0,1	8,00	0,1	8,00	0,07	5,6	0,15	12,00
20	Dry fruits	70	0,015	1,05	0,1	7,00		0,00	0,035	2,45	0,02	1,40
21	Black tea	250	0,001	0,25	0,001	0,25		0,00		0	0,002	0,50
22	Fresh fish	120	0,1	12,00	0,1	12,00	0,1	12,00	0,1	12	0,075	9,00
23	Kefir	35	0,1	3,50	0,1	3,50	0,1	3,50	0,1	3,5	0	0,00
24	Cottage cheese	130	0,05	6,50	0,05	6,50	0,05	6,50	0,1	13	0,05	6,50
	Total			**121,73**		**133,60**		**116,39**		**136,08**		**140,82**

Today the average actual norm is determined in the amount of 41 som per day as per Regulation of the Government of the KR #7 as of 15.01.2008 “On monetary norms of nutrition in the social sphere institutions”. In practical terms, these financial means do not help in satisfying the need for the required volume of food.

The deficit of financing of meals per one bed-day is **80 som.**

Figure 19. The nutritional norm per one patient per day in the Single Payer health institutions (as approved by Order #214 of the KR MH as of 07.05.2004)

Нормы питания на 1-го больного в день в организациях здравоохранения системы ЕП

(утв.приказом МЗ КР №214 от 07.05.2004г.)

Потребность питания на 1-го больного в день – **121,73 сом,** *в том числе:*

ПРОДУКТЫ	КГ	СОМ
Мясо	0,100	25,75
Масло сливочное	0,020	4,96
Масло растительное	0,015	1,86
Молоко сухое	0,030	5,55
Сахар	0,040	4,10
Макароны	0,100	6,69
Бобовые	0,025	0,96
Картофель	0,400	11,20
Овощи	0,200	7,45
Мука	0,025	0,88
Соль	0,006	0,07
Сметана	0,010	1,60
Яйцо	0,500	3,25
Томат паста	0,005	0,39
Хлеб	0,350	5,25
Сыр	0,015	3,75
Колбаса диет.	0,020	4,70
Сок фруктовый	0,100	4,40
Фрукты свежие	0,070	5,60
Фрукты сухие	0,015	1,05
Чай черный	0,001	0,25
Рыба свежая	0,100	12,0
Кефир	0,100	3,50
Творог	0,050	6,50

Фактическая норма питания на 1-го больного в день – **41,03 сом,** *в том числе*

ПРОДУКТЫ	КГ	СОМ
Мясо	0,058	13,65
Масло сливочное	0,011	2,68
Масло растительное	0,013	0,72
Молоко сухое	0,045	7,81
Сахар	0,022	1,14
Бобовые	0,018	0,59
Картофель	0,123	2,47
Мука	0,012	0,27
Соль	0,010	0,13
Томат паста	0,004	0,20
Хлеб	0,302	6,04
Свекла	0,023	0,37
Морковь	0,005	0,17
Лук	0,006	0,20
Капуста	0,031	1,47
Овсяная хлопья	0,042	1,68
Манная крупа	0,020	1,44

Разница фактической нормы питания от потребности составляет – **80,70 сом**

- **Количество койко-дней за 2011 год – 7 114 361 дней**
- **7 114 361 х 80,70 = составляет 574 128 932 сомов**

Дополнительная потребность

It is obvious from the Table that one patient is entitled to 58,0 gr. of meat, 11 gr. of butter and 13 gr. of oil and other products that have to be proportionally distributed for breakfast, lunch, and dinner. Quite naturally, this amount of food would not be able to provide vitally important nourishment for the organism and its recovery.

To address this problem and ensure additional funding for health institutions it is required to have additional 574 million 128 thousand 932 som for the “meals” cost item.

Today, according to the Law “On health insurance of the citizens of the Kyrgyz Republic” (1999) the republican budget does not envisage funds for insuring military servants, students, and officially registered unemployed, a fact that violates the mentioned Law.

In case of insuring the above mentioned categories of citizens for the amount of 150 som per year the additional funds required comprise 305 million 469 thousand som.

Figure 20. Estimated need for the health insurance funds from the republican budget in 2011

Расчет потребности на обязательное медицинское страхование из средств республиканского бюджета на 2011 год

Категории населения	Кол-во лиц приписанных к ЦСМ/ГСВ (тыс.чел)	Контр. цифры МФ 2011 г. (тыс.сом)	Потребность по Закону *	Откл. от потребности *	фактические расходы в год (2011г.-факт) (тыс.сом)
Дети до 16 лет	1 971,7	114 102,8	295 755,0	-181 652,2	432 568,2
Лица, получающие соц-е пособия	421,5	6 652,8	63 225,0	-56 572,2	63 813,0
Пенсионеры	560,2	138 644,4	146 294,4	-7 650,0	253 549,2
Военнослужащие	6,5		975,0	-975,0	794,3
Студенты	325,8		48 870,0	-48 870,0	91,5
Зарегистрированные безработные	65,0		9 750,0	-9 750,0	398,6
ВСЕГО	**3 350,7**	**259 400,0**	**564 869,4**	**-305 469,4**	**751 214,8**

* согласно статье 9 Закона КР "О медицинском страховании граждан в КР" на 1 чел. по 150 сомов

One of the serious problems in health care is the uneven tariffs for utilities. Table 7 shows that the thermal power tariffs in different health institutions per 1 G/Cal vary from 860 som to 7504 som. E.g. the ambulance service station in the town of Osh pays 926,0 som per 1 G/Cal of heating while the Family Medicine Centre (FMC) in Issyk-Ata rayon pays 7504 som, and the FMC in Sokuluk rayon pays 6358 som for the same amount of thermal energy.

It is required to regulate tariffs for health institutions regardless of the ownership title of their thermal energy provider.

Table 7. Comparative Table for thermal power tariffs as set forth by the providers for the Single Payer health institutions, 2009-2011

Сравнительная таблица по тарифам на теплоэнергию установленные поставщиками для организаций здравоохранения в системе ЕП 2009-2011гг..

Регион	Наименование организации	Поставщик теплоэнергии	Тарифы на теплоэнергию (стоимость на 1 Г/калл в сомах)		
			2009г.	2010г.	2011г.
г.Ош	ТБ г.Ош	Ош ТЭЦ	984,70	1 031,58	1 040,70
	ФТБ №2	МПО Теплоснабжение	6 020,30	5 598,54	3 942,40
	ФТБ №3	МПО Теплоснабжение	2 458,52	3 383,52	3 241,28
	ЦСМ №1	Ош ТЭЦ	976,86	1 040,70	1 040,74
	ООЦСМ	Ош ТЭЦ	976,86	1 050,74	1 060,04
	ССМП	Ош ТЭЦ	860,00	929,20	929,20
	Стомпол.№1	Ош ТЭЦ	1 040,00	1 050,00	1 050,00
Ошская обл.	ОМОКБ	Ош ТЭЦ	860,00	921,05	929,20
		МПО Теплоснабжение	5 732,27	6 935,36	6 228,00
	ОМДКБ	Ош ТЭЦ	860,00	921,05	929,20
	Обл.стомпол.	Ош ТЭЦ	860,00	921,05	929,20
	Ноокат стомпол.	МПО Теплоснабжение			6 228,00
Чуйская обл.	ЧООБ	ОАО "Бишкектеплосеть"	976,10	1 050,00	1 050,00
	Обл.ЦСМ	ОАО "Бишкектеплосеть"	963,20	1 040,50	929,20
	Ысыката ТБ	КП "Теплоснабжение"	4 435,90	7 504,80	7 504,80
	Ысыката ЦСМ	КП "Теплоснабжение"	4 435,90	7 504,80	7 504,80
	Жайыл ОТБ	ПО "ЭТВ"	2 617,70	2 850,50	2 545,10
	Жайыл ЦСМ	ПО "ЭТВ"	2 560,50	2 850,50	2 050,50
	Жайыл стомпол.	ПО "ЭТВ"	2 560,50	2 850,50	2 852,00
	Сокулук ТБ	БМП ТВС и В	5 175,40	6 358,80	6 358,80
	Сокулук ЦСМ	БМП ТВС и В	5 175,40	6 358,80	6 358,80
	Чуй ТБ	ТП "Теплоснабжение"	3 963,20	4 328,00	4 252,00
	Чуй ЦСМ	ТП "Теплоснабжение"	3 980,60	4 328,00	4 420,10
	ТБ г.Токмок	МП "Жылуулук"	3 534,70	4 356,80	4 356,80
	ЦСМ г.Токмок	МП "Жылуулук"	3 597,80	4 356,80	4 356,80
Баткенская обл.	Кызыл-Кыя ТБ	Ош ТЭЦ	963,20	1 040,70	1 040,70
Нарынская обл.	НООБ	Нарынское МПО теплоснабжение	2 144,00	2 993,90	3 231,90
Жалалабадская обл.	Обл.ЦСМ	МПО Теплоснабжение г.ЖБ	3 052,00	6 002,00	6 938,00
	Кочкор-Ата ТБ	ПТС г.Кочкор-Ата	4 015,00	4 355,00	4 610,00
	Кара-Куль ЦОВП	Каскад ТГЭС г.Кара-Куль	1 032,00	1 041,00	1 041,00
Иссык-Кульская обл.	Иссыккуль ЦСМ	Чолпон-Атинское предпр."Теплоснабжение"	4 633,00	4 633,00	
	ГСВ "Восход"	Каракольская предпр."Жылуулук"		3 610,00	3 610,00
	ГСВ "Умут"	Каракольская предпр."Теплоснабжение"		3 610,00	3 610,00

A pressing problem is the health insurance of farmers. Today the insurance is provided by the land tax with 7,4% of which being contributed to mandatory health insurance. On average 1 farm contributes 48 som per year for the entire family (with many children in many cases). At the same time the MHIF allocated 45 million 101 thousand som as payment for medical services provided to this category of citizens in 2010 while the actual collected amount from the farms made up only 13 million som, thus, revealing a budget deficit of 32 million som.

In this regard, one of the proposals is to eliminate insurance contributions from the land tax all together and introduce a mandatory procurement of the MHIF policy by each member of the farm older than 18 years of age.

The transfer to this insurance system (selling the policy at 150 som per person) will help generate additional 65,0 million som and more for the budget.

Estimation of the need for mandatory health insurance of farmers

Расчет потребности на обязательное медицинское страхование фермерских хозяйств

	всего	численность занятых лиц, человек	в том числе старше 18 лет. человек
Количество фермерских хозяйств по данным Нацстаткомитета	270 306	1 616 831	437 792

	человек	Сумма к оплате, в сомах
Количество приписанных фермеров к ЦСМ	385 159	30 812 720
Количество пролеченных фермеров в стационарах	14 280	14 289 146

Доход Фонда ОМС от поступлений страховых взносов от фермерских хозяйств в СФ	13 000 000 сом
Расход Фонда ОМС (оплата мед.услуг ОЗ)	45 101 866 сом
Дефицит бюджета Фонда ОМС	-32 101 866 сом

Годовое поступление от одного фермерского хозяйства(7,4% от базовой ставки земельного налога)	48,09 сом

Предложение:

1.Отмена тарифа страховых взносов для фермерских хозяйств от базовой ставки земельного налога и введение обязательного приобретения полиса ОМС на каждого члена фермерского хозяйства старше 18 лет

2.Ожидаемое поступление от реализации полиса ОМС в размере 150 сомов на каждого члена фермерского хозяйства старше 18 лет – 65 668 800 сом ***(437 792 чел. х 150 сом)***

6. CONCLUSIONS

1) In 2000 - 2010 the overall health sector expenditures grew by more than five times in nominal terms.

2) Over the period of 2000-2010 the structure of overall health expenditures has changed dramatically. While the private expenses, including cash payments by the population, dominated in the first part of the decade, the second decade saw a more rapid growth of state expenditures, a trend leading to the domination of state expenditures over the private ones in 2010.

3) Despite of the fact that there has been a recent increase in the state financing for the health sector accompanied by the growth of state expenditures within the State Benefit Package, the financial gap of the SBP increased to 34,8% in 2010 versus 27,5% in 2009.

4) A positive impact on the financial gap could be produced by a considerable salary increase for medical workers in 2011. However, the extent of this impact on the financial gap and on the increased affordability of medical services for the population would be possible to evaluate after the next round of the integrated household survey and the review of the discharged patients.

5) The review of expenditures by individual institutions demonstrated that the state budget funds are mainly allocated to finance remuneration for the medical staff while the direct costs per patient (meals and medicines) make up less than 30%. As a result the deficit of financing of one bed-day makes up 80 som.

6) One of the sources for increasing the financing is a revision of the health insurance of farmers when additional 65 million som could be generated per annum through cancelling the insurance contributions from the land tax and introducing mandatory procurement of MHI policy per each farm member older than 18 years of age.