

STREAMLINING FINANCING OF THE DISTRICT HEALTHCARE INSTITUTIONS AT THE HOSPITAL LEVEL IN THE REPUBLIC OF MOLDOVA

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Novelty. Insufficient financial resources in the health care system in the Republic of Moldova is a current problem and derives from the fact that expenditure of the public HI at the hospital level are higher than income earned by these institutions for 2011-2013.

Aim. In this context we proposed to analyze the expenditure and revenue of the district HI at the hospital level in order to identify the directions on the rationalization of funding of these institutions to harness financial resources that would have a favorable impact on the efficiency of health services in the country.

Methods. In this paper there were used methods of analysis applied in national and international practice. As research methods were used: the study of socio-economic information, analysis and comparison of information at different levels.

Results. Analysis of public revenue and expenditure of district HI at the hospital level captures how the funding was made in 9 district hospitals in the Republic of Moldova for the period 2011-2013 being highlighted the main problems facing the financing of hospital care at district level.

Key words: *expenses and income, hospital care, healthcare capitalization of financial resources, health care institutions district, district public IMS.*

Actualitatea. Insuficiența resurselor financiare în sistemul ocrotirii sănătății în Republica Moldova este o problemă actuală și derivă din faptul, că cheltuielile IMS publice, de nivel spitalicesc, sunt mai mari decât veniturile obținute de aceste instituții pentru perioada 2011-2013.

Scopul. În acest context ne-am propus analiza cheltuielilor și veniturilor IMSP raionale de nivel spitalicesc cu scopul identificării direcțiilor privind raționalizarea finanțării acestor instituții în vederea valorificării resurselor financiare care ar avea un impact favorabil privind eficiența serviciilor medicale în Republica Moldova.

Metode. În prezenta lucrare au fost utilizate metode de analiză aplicate în practica națională și internațională. În calitate de metode de cercetare au fost utilizate: studierea informației socio-economice, analiza, gruparea și comparația informației la diferite niveluri.

Rezultate. Analiza veniturilor și cheltuielilor IMS publice raionale de nivel spitalicesc surprinde modul cum s-a realizat finanțarea a 9 spitale raionale în Republica Moldova pentru anii 2011-2013, fiind evidențiate principalele probleme cu care se confruntă finanțarea asistenței medicale spitalicești la nivel raional.

Cuvinte cheie: *cheltuieli și venituri, asistență medicală spitalicească, ocrotirea sănătății valorificarea resurselor financiare, instituții medico-sanitare raionale, IMS publice raionale.*

Актуальность. Недостаток финансовых ресурсов в системе здравоохранения в Республике Молдова является острой проблемой и связана с тем, что уровень расходов в государственных больницах выше, чем уровень доходов, полученный этими учреждениями в 2011-2013 годах.

Цель. В этом контексте мы предложили анализ расходов и доходов районных больниц, с целью выявления направлений по рационализации финансирования этих учреждений, чтобы использовать финансовые ресурсы, которые оказывают благоприятное влияние на эффективность медицинских услуг в стране.

Методы. В этой работе были использованы методы анализа, применяемые в национальной и международной практике. Были использованы следующие методы исследования: изучение социально-экономической информации, анализ и группа сравнения информации на различных уровнях.

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Результаты. Анализ доходов и расходов государственных районных больниц показывает, насколько было профинансировано 9 медицинских учреждений в Республике Молдова в 2011-2013 годах, выделяя основные проблемы, стоящие перед финансированием стационарной помощи на районном уровне.

Ключевые слова: расходы и доходы, больничный уход, здравоохранение, использование финансовых ресурсов, медицинские учреждения, государственные районные больницы.

JEL Classification: H50; H51; H53; H72; I10

Introduction. District hospitals fall into the category of public healthcare institutions. Hospital represents the most important medical service unit in which provided healthcare is complete - preventive, curative and for rehabilitation of health of population at a certain territorial area. These institutions participate in an integrated system with primary care assistance in order to ensure the health of the population in the territory. But the district hospital is a public institution. So, it is a key element both in healthcare system and in public service system.

The streamlining role of financing district PHI at the hospital level in the Republic of Moldova

The hospital is an institution that seeks specific purposes, namely by increasing the population's health from the provided medical services. In this context, they assure medical service while providing accommodation during treatment, activity that justifies the name of the health institution with beds.

Hospital system in Moldova consists of 82 hospitals namely:

- 1) Hospitals at the republican level – 16;
- 2) Departmental hospitals – 10
- 3) Municipal hospitals – 10;
- 4) District hospitals – 35;
- 5) Private hospitals – 11.

In Figure 1 we present the share of expenditure of republican, district and municipal hospitals in the total of annual expenditure made by the mentioned hospitals for 2012. Thus, republican hospitals had expenses at a rate of 45.5 percent of total expenditures. District hospitals have made 28.7 percent of the expenses for the year 2012. The lowest share is owned by the municipal hospitals – 25.7%.

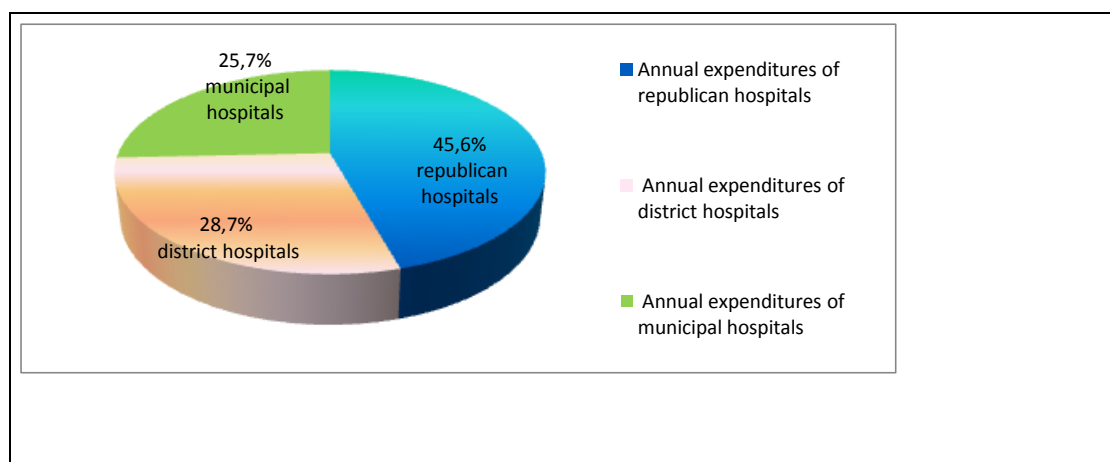


Fig. 1. Share of expenditures for 2012 of the republican, district and municipal hospitals in the Republic of Moldova

Source: Developed by the author based on www.ms.gov.md, statistical data.

Table 1 presents income and expenditure of the 35 district hospitals for 2011-2013. We see the increased revenue of the district hospitals in 2013 by 9.9 pp compared with 2011. Expenditure of the district hospitals increased in 2013 compared to 2011 by 10.1 pp.

Table 1

**Revenue and expenditure of district public healthcare institutions
in the Republic of Moldova for 2011-2013**

| No. | Indices | 2011 | 2012 | 2013 | Growth rate, % |
|-----|---------------------------|----------|----------|----------|----------------|
| 1. | Revenue, thousand MDL | 833519,1 | 881900,3 | 915760,3 | 9,9 |
| 2. | Expenditure, thousand MDL | 860754 | 919597,7 | 947625,8 | 10,1 |

Source: Developed by the author based on www.ms.gov.md, statistical data

District hospitals are present in three development regions "North", "Center" and "South". In order to analyze financing of the district hospitals we proposed to make a study of nine hospitals, three district hospitals from each region in accordance with the number of beds as follows:

DR "North" – Edinet DH, Drochia DH, Riscani DH;

DR "Centre" – Orhei DH, Hincesti DH, Calarasi DH;

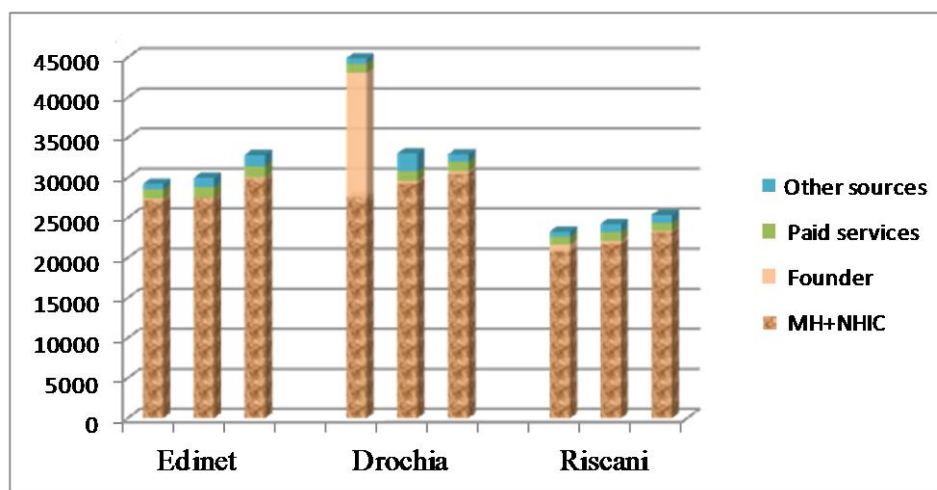
DR "South" – Cahul DH, Causeni DH, Cantemir DH.

Under the law on protection of the health the activity of the public medical institutions involved in the mandatory health insurance system are conducted on the principle of self-financing and non-profit.

Revenue of the district public medical institutions at the hospital level is formed from the following sources:

- 1) allocations of the Ministry of Health and National Health Insurance Company;
- 2) allowances of the founder;
- 3) payment for the delivered services;
- 4) other sources.

Next, there will be presented the structure of revenue on components of the district public hospitals on regions of development for 2011-2013.



**Fig. 2. Components of revenue of the district public hospitals
Edinet, Drochia, Riscani from the „North” development region for 2011-2013**

Source: developed by the author based on www.ms.gov.md, statistical data.

From Figure 2 we see that grants of the Minister of Health and National Health Insurance Company has the largest share, in Edinet DH accounting for – 92%, in Riscani DH – 90% of total revenues for the period 2011-2013. At the Drochia DH they accounted for 61% in 2011, in 2012 and 2013 their share being of 90%.

Edinet DH revenues are worth 32834.0 thousand MDL in 2013. Drochia DH had the highest level of income for the year 2011 – up to 44,896,800 MDL. Revenue of Riscani DR has a lower level in the period under review compared to other hospitals analyzed in the region "North" and was 25,354,000 lei in 2013.

Allocations of the founder account for approximately 1-2% of the total revenue for Edinet DH and Riscani DH for 2011-2013. The situation is different at Drochia DH in 2011, where allocations of the founder represented 34%. This is explained by the performing of the renovation, resources being allocated by the founder Drochia DH.

Revenues from paid services account for 4% for the years 2011 to 2013 in all hospitals analyzed in the development region "North", Edinet DH, Drochia DH and Riscani DH.

Other sources of funding include humanitarian aid, centralized drugs and other sources of income.

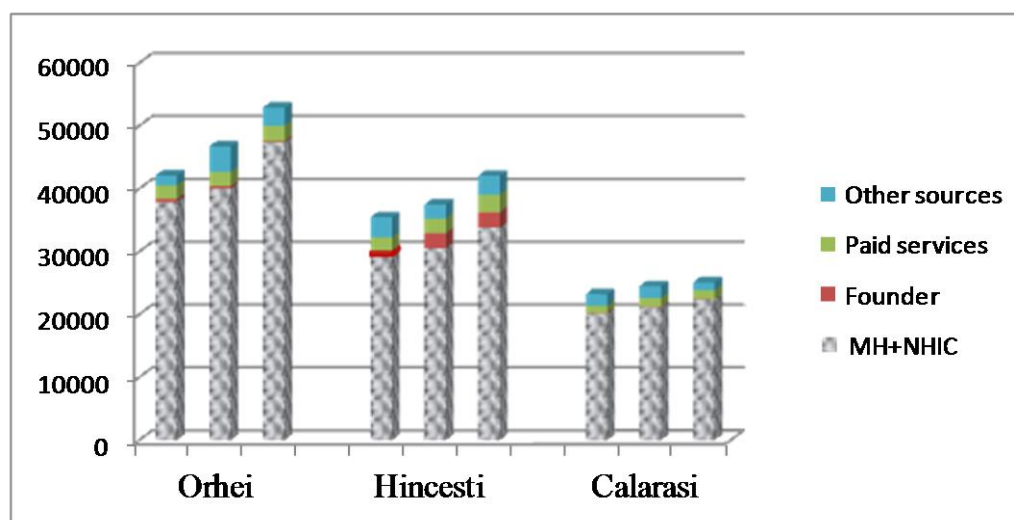


Fig. 3. Components of revenue of the district public hospitals Orhei, Hincesti, Calarasi from the „Centre” development region for 2011-2013

Source: developed by the author based on www.ms.gov.md, statistical data.

Analyzing income of Orhei, Hincesti and Calarasi district hospitals from „Centre” development region during the period 2011-2013, we observe its growth in all the analyzed hospitals.

Orhei DH in 2013 achieved 52,879,100 MDL representing the highest amount compared with district hospitals Hancești and Calarasi. The Hancești DH recorded revenues of 42.018 thousand MDL in 2013. Revenues of Calarasi DH in 2013 accounted for 25062,9 thousand MDL.

The largest contribution to the formation of hospital revenues from "Centre" development region is held by the Ministry of Health and National Health Insurance Company, as follows: 90% in Orhei DH, 82% in Hincesti DH and 87% in Calarasi DH.

Revenue from founder account for 6% for Hancesti DH, because repairs were made in 2012 and 2013, which are financed by the founder of the district hospital. Allocations of the founder in Orhei and Calarasi reached 1% for 2011-2013.

Revenue from paid services accounts for 6% of all analyzed hospitals in the region development "Center".

Other sources of funding include humanitarian aid, centralized drugs and other sources of income and account for at Orhei DH - 9% in 2012, at Hancesti DH – 7% and in 2013 and at Calarasi DH – 7% in 2012.

SR Cahul recorded revenues amounting to 49136,6 thousand MDL in 2013 representing the highest level compared with Causeni DH and Cantemir DH. Causeni DH obtained 35594,5 thousand MDL in 2013, increasing by 3228,2 thousand MDL compared with 2012.

Cantemir DH recorded revenues amounting to 21134,1 thousand MDL in 2013, and although growth was found compared to the years 2012 and 2011, it is still low compared with district hospitals in developing regions "North" and "Center" with the same number of beds (Riscani DH obtaining 25354 thousand MDL and Calarasi DH having 25062,9 thousand MDL).

From the income structure of district hospitals in the development region "South" allowances of the Ministry of Health and National Health Insurance Company hold the largest share compared to other sources of funding. Thus, at all district hospitals it is on average about 86%.

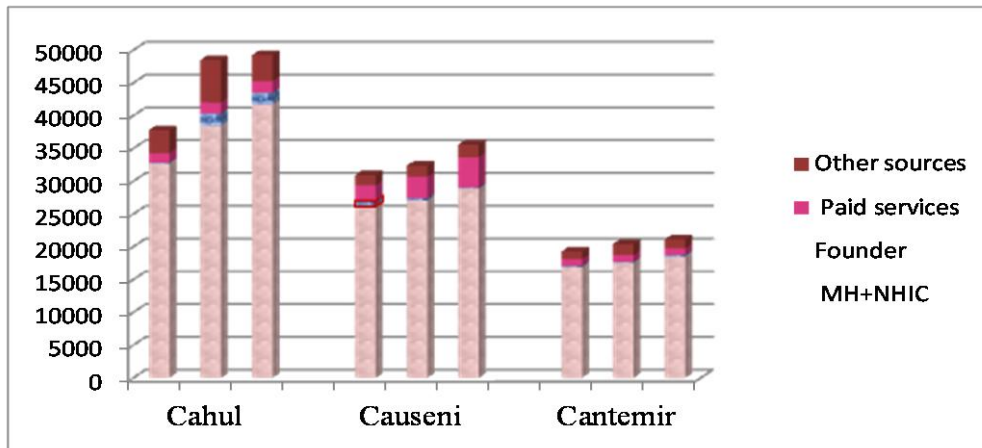


Fig. 4. Components of revenue of the district public hospitals

Cahul, Causeni, Cantemir from „South” development region for 2011-2013

Source: Developed by the author based on www.ms.gov.md, statistical data.

Founders' contribution to hospitals' income formation is only 1%. Revenues from paid services at district hospitals Cahul and Cantemir are about 4% -5% and at Causeni DH - 13% in 2013, having the largest share in comparison with the analyzed hospitals.

Next we will analyze the costs incurred by public district hospitals selected for developing regions "North", "Center" and "South" for 2011-2013.

Costs incurred by the district hospitals refer to the following components:

- 1) expenditure on wages;
- 2) expenses for food;
- 3) expenditures on drugs;
- 4) maintenance costs (electricity, gas, water, sewerage, transport, etc.);
- 5) expenses for repairs;
- 6) other expenses.

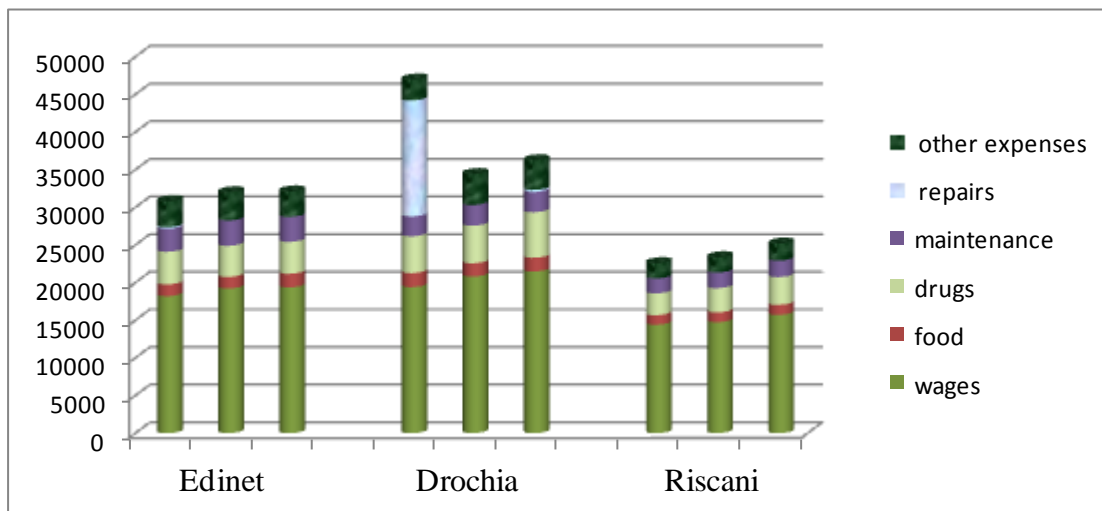


Fig. 5. Components of expenditures of the district public hospitals

Edinet, Drochia, Riscani from the „North” development region for 2011-2013

Source: Developed by the author based on www.ms.gov.md, statistical data.

Hospital expenditures of Edinet and Riscani DH increased in 2013 compared to 2011 and 2012. Expenditures of Drochia DH had the highest level in 2011, and it fell in the next years.

Analyzing expenditures on component of district hospitals of the development region "North" for 2011-2013, we found that the largest share is made of expenditures on wages.

Expenditure on drugs accounted for 13% at Edinet DH, 17% – Drochia DH and 15% – Riscani DH

in 2013. Expenditures for maintenance is an average 8% of total expenditure of district hospitals from the „North” development region.

Major repairs were carried out in Edinet DH in 2011 and in Drochia DH in 2011 and 2013. In this regard, there have been spent money accounting for 200 thousand MDL in Edinet, and in Drochia 15392.4 thousand MDL in 2011 and 289.4 thousand MDL in 2013.

The component other expenses involves equipment procurement and it also includes depreciation of fixed assets.

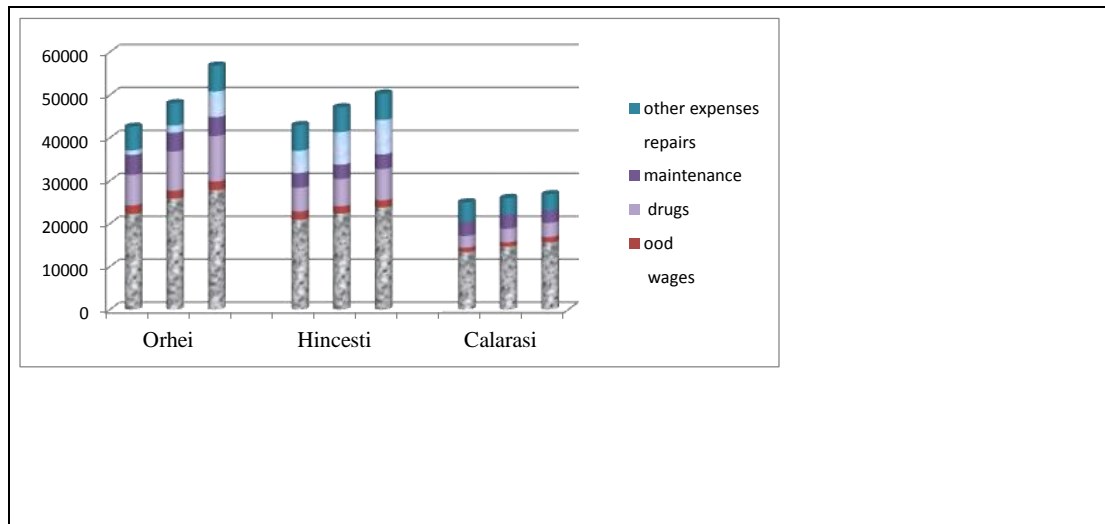


Fig. 6. Components of expenditures of the district public hospitals Orhei, Hancesti, Calarasi from the „Centre” development region for 2011-2013

Source: Developed by the author based on www.ms.gov.md, statistical data.

Expenditures of the district hospitals from „Centre” development region increased in 2013 compared with 2012.

The largest share in total expenditures is expenditures for wages, followed by spending on drugs.

Expenses for repairs are quite significant share in total expenditures and Hâncesti Orhei district hospitals. Following repairs carried decreased maintenance costs by 6% in Orhei. The SR Calarasi repairs were not made in the period.

Spending on food, medicine Orhei is 22%, 18% and 17% RH Hâncesti SR Calarasi of total expenditures in 2013.

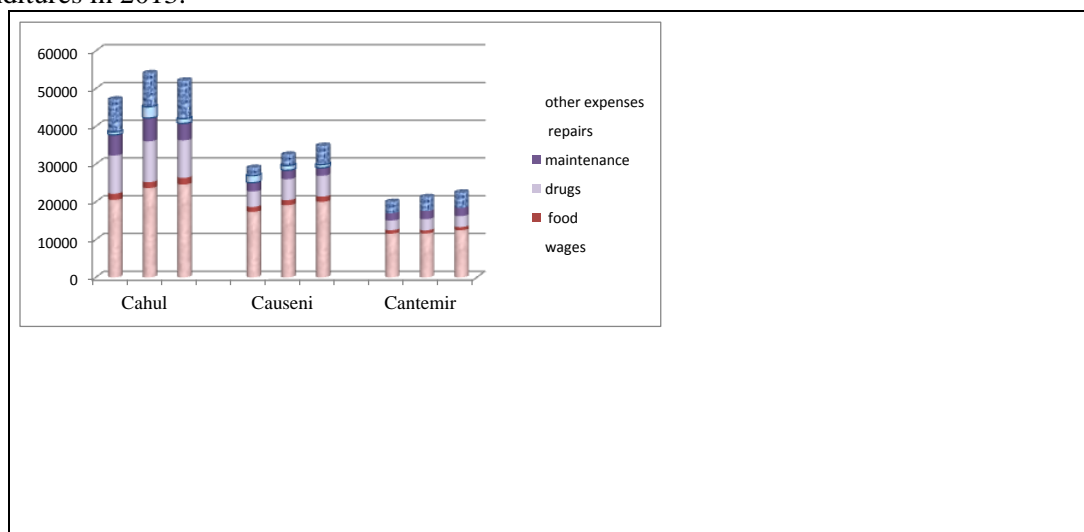


Fig. 7 Components of expenditures of the district public hospitals Cahul, Causeni, Cantemir from the „South” development region for 2011-2013

Source: Developed by the author based on www.ms.gov.md, statistical data.

Figure 7 presents the expenditure incurred by district hospitals in the development region "South". Expenditures of Causeni and Cantemir district hospitals increased in 2013 compared to 2012. Expenses of Cahul DH decreased in 2013 compared to 2012.

Expenditures for wages hold the largest share in the structure of hospital costs.

As a result of carrying out repairs in Cahul DH and Causeni DH in 2012, maintenance costs decreased in 2013.

Spending on food, medicine accounts for 22% at Cahul DH, 20% at Causeni DH and 17% at Cantemir DH of the total expenditures in 2013.

At all the analyzed district hospitals from all three development regions was found that costs are higher than income.

Insufficient financial resources in the health care system in Moldova are a problem of the first order. As the health care system functionality depends on the financial aspect, it is the basic tool in medical institutions work. Financial resources can be harnessed by rationalizing public financing at district hospitals looking for:

1) optimizing the working expenses of the analyzed district hospitals. This will be possible by reducing the number of beds in Edinet DH. In this context, medical service costs will be reduced at Edinet DH. In Drochia DH 11902 patients were treated in 350 beds, in Edinet DH 11,120 patients were treated in 435 beds. At the same time, the number of hospital bed days also varies – in Drochia DH being 95,216 and in Edinet DH – 88,960;

2) reducing the average length of stay at the hospital from 8 days to 6 days will result in lowering costs for treated cases;

3) increasing the role of local and district hospitals namely the role of founders at the formation of revenues. Currently founder allocations are low accounting for only 1% of the total revenue sources.

Conclusions

Funding district public hospitals in Moldova proved to be insufficient for 2011-2013, so by applying the directions mentioned in this paper will be made the harnessing of financial resources that will contribute to infrastructure development of the institutions, medical personnel stimulation and finally qualitative medical services.

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