

Financial Analysis of the Activities of Medical Institutions of the Republic of Tatarstan

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Abstract: The article considers the current problem of optimization of financial management in state budgetary institutions of health care. In the framework of the current state policy, it is necessary to clearly define the limit of social guarantees provided at the expense of budgets and create new social protection mechanisms. The implementation of this task largely depends on the state and sustainability of public and municipal finances, which are the main funding source. When discussing the quality of cost management of health care facilities, we need to be very careful and correct. Unlike commercial structures, where the effectiveness of their work is assessed by the level of profitability and the dynamics of positive financial result, in health care, it is impossible to assess its effectiveness through the level of profit or the size of cost reduction in the provision of services. In this vitally important area, the number of costs incurred for providing certain types of health services should not be a determining factor. These costs' social importance comes to the fore, which many theorists and practitioners are trying to assess, but this problem has not been solved to the end.

1 INTRODUCTION

Subjects of the Federation and municipalities are independent in determining the list of target programs due to different socio-economic development priorities, differences in public authorities, and local governments' structure. When forming the procedure for the development, implementation, and evaluation of the effectiveness of target programs, the subjects of the Federation and municipalities must find a balance between the approaches of the federal level of government, the specifics of the territory, and the features of the existing system of state (municipal) management of its socio-economic development.


Authorities at different levels are forced to limit the growth of budget expenditures against the backdrop of unfavorable economic conditions. The most important condition for the development of the budget system of the Russian Federation in this situation is to improve the efficiency of budgetary funds. Health care expenditures occupy about a quarter of territorial budgets' expenditures. Therefore,


one of the most important issues of financing public medical budget-funded institutions is financing from the funds received from the provision of paid services through active cooperation with insurance companies.


The structure of financial flows was analysed, trends and deviations from the planned values were identified. The effect of cooperation of a treatment facility with insurance companies was analyzed. The cooperation is based on the variation of two main variables - the discount and the expected increase in demand for services - which makes it possible to determine the efficiency of project implementation, both for individual groups of services and the hospital's entire commercial activity as a whole.

2 RESEARCH METHODOLOGY

The theoretical study of methods for assessing the income and expenditure of treatment and preventive care institutions, research literature was used in the

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preparation of this paper. The study is based on the application of a comprehensive analysis of revenues and expenditures of health care subjects using data from official statistics and financial statements.

3 RESEARCH RESULTS

The problem of optimizing financial flows is faced by the management of virtually any company. In this context, it is very relevant for municipal health care entities to increase revenues from paid services taking into account the demand for these services and their affordability in terms of pricing.

4 DISCUSSION OF RESULTS

The results will determine the effectiveness of project implementation, both for individual groups of services and for the entire commercial activity of the hospital as a whole.

Socio-economic problems in our country are aggravated by the crisis. In the framework of the current state policy, it is necessary to clearly define the limit of social guarantees provided at the expense of budgets and create new social protection mechanisms. The implementation of this task largely

depends on the state and sustainability of public and municipal finances, which are the main source of financing the state's tasks and functions (Schilperoot and Wierts, 2012).

Subjects of the Federation and municipalities are independent in determining the list of target programs due to different socio-economic development priorities, differences in public authorities, and local governments' structure. When forming the procedure for the development, implementation, and evaluation of the effectiveness of target programs, the subjects of the Federation and municipalities should find a balance between the approaches of the federal level of power, the specifics of the territory, and the features of the existing system of state (municipal) management of its socio-economic development (Denisova and Rukina, 2013)

State Autonomous Health Care Institution "City Polyclinic No. 3" of Naberezhnye Chelny is a state autonomous health care institution of the Volga Federal District, whose founder is the Ministry of Health of the Republic of Tatarstan.

Analysis of the financial management of the state healthcare institution (SHI) "City Polyclinic No. 3" is carried out in the following sequence:

1. Comparative analysis of the results of Treatment-and-prophylactic institution activities for 2017-2019 (Table 1) by sources of funds and costs incurred.

Table 1: Dynamics of revenues and expenditures of the SHI "City Polyclinic No. 3" for 2017-2019.

Income and expense items	2017	2018		2019			
	Amount, thousand rubles	Amount, thousand rubles	Growth rate to 2017, %	Change, thousand rubles	Amount, thousand rubles	Growth rate to 2018, %	Change, thousand rubles
Income, including	131,417.3	136,243.6	103.67	4,826.3	130,348.2	95.67	-5,895.4
Income from rendering services (works)	125,419.5	133,231.2	106.23	7,811.7	12,8974.9	96.81	-4,256.3
Expenses, including	139,657.0	139,321.5	99.76	-335.5	133,059.2	95.51	-6,262.3
Expenses from rendering services (works)	137,851.7	136,454.4	98.99	-1,397.3	129,221.9	94.70	-7,232.5
Net operating result	-8,242.7	-3,077.90	37.34	5,164.8	-2,711.0	88.08	366.9

It follows from the data in Table 1 that revenues and expenditures, in general, tend to decrease. Despite the increase in revenues in 2018 (increased by 3.67% or RUB 4,826.3 thousand to RUB 136,243.6 thousand, they decreased by 4.33% or RUB 5,895.4 thousand to RUB 130,348.2 thousand in 2019 against 2018.

Revenue from services (works) in general has an upward trend, which is evaluated positively. In 2018 it increased by 6.23% or RUB 7,811.7 thousand and

amounted to RUB 1,332,131.2 thousand; in 2019, their increase against 2017 was 2.83% or RUB 3,555.4 thousand to RUB 128,974.9 thousand.

At the same time, there is a steady tendency of decrease in expenses from RUB 139,657 thousand to RUB 133,059,2 thousand. Thus, in 2018 they decreased by 0.24% or RUB 335.5 thousand. In 2019, there is a decrease in total expenses by 4.49% or RUB 6,262.3 thousand.

Reduction of expenses from rendering services (works) should be positively assessed. Thus, in 2018 they decreased by 1.01% or 1,397.3 thousand rubles to RUB 136,454.4 thousand. In 2019, there is a decrease in expenses from rendering services by 5.3% or RUB 7,232.5 thousand to 129,221.9 thousand.

The excess of revenues over expenditures in 2017-2019 should be assessed negatively. As a consequence, the net operating result is negative. In

2017 it was RUB 8,242.7 thousand, in 2018 it increases to RUB 3,077.9 thousand, despite the negative value. As of the end of 2019, the negative net operating result of the institution was RUB 2,711 thousand.

The dynamics of revenues and expenditures from the provision of paid services (works) by health care facilities for 2017-2019 is presented in Fig. 1.

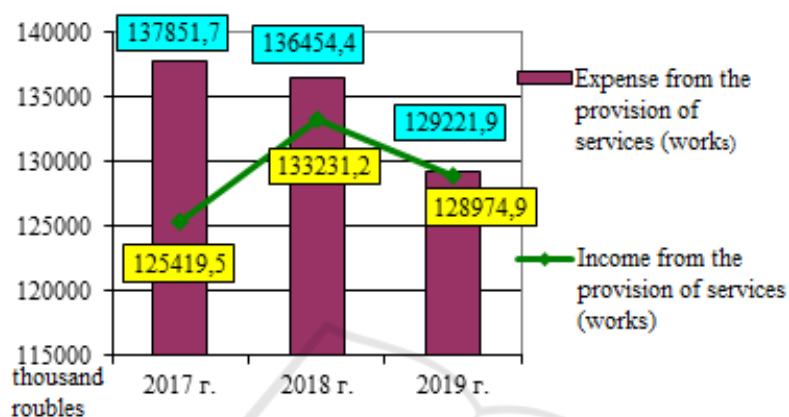


Figure 1: Dynamics of revenues and expenses from provision of paid services (works) in the SHI "City Polyclinic No. 3" in 2017-2019.

The figure shows that in 2019, compared with 2017, an increase in the growth rate of revenues from paid services (works) (increased by 2.83%) is achieved against a decrease in the growth rate of expenses from paid services (works) (decreased by 6.26%).

Negatively, the excess of expenses over revenues from the provision of services in 2017-2019 by RUB 12,432.2 thousand, 3,223.2 thousand and 247

thousand, respectively, should be assessed as negative. At the same time, the decrease in excess of expenditures over revenues from services should be assessed positively;

2. analysis and control of the actual implementation of the planned indicators of financial and economic activities of the institution.

The dynamics of the planned indicators of TPI for 2017-2019 is presented in Table 2.

Table 2: Planned and actual indicators of financial and economic activity of the SHI "City Polyclinic No. 3" for 2017-2019, thous.

Indicators	2017		2018		2019	
	planned	actual	planned	actual	planned	actual
Total revenue	116,960.5	131,417.3	117,675.2	136,243.6	119,857.7	130,348.2
OMI	115,496.3	129,953.1	117,675.2	136,243.6	118,657.7	129,148.2
Budget funds transferred to OMI	1,464.2	1,464.2	-		1,200.0	1,200.0
Total expenses	116,960.5	139,657.0	117,675.2	139,321.5	119,857.7	133,059.2
Execution result	-	-8,242.7	-	-3,077.90	-	-2,711.0
Sources of deficit financing	-	8,242.7	-	3,077.90	-	2,711.0
Net income from rendering paid services (works)	-	8,242.7	-	3,077.90	-	2,711.0
Increase in fund balances	-	-133,318.3	-	-135,499.4	-	-131,046.8
Decrease in fund balances	-	141,561.0	-	138,577.3	-	133,757.8

As shown in Table 2, the actual funding in 2017-2019 is lower than the approved planning targets. At the same time, as a result of excess of actual expenses over revenues, there was a decrease in financing deficit of RUB 8,242.7 thousand, RUB 3,077.9 thousand and RUB 2,711 thousand accordingly. It should be noted that in 2018 the planned financing of the SHI "the City Polyclinic No. 3" was 100% from the OMI budget. Financing of the institution's deficit is carried out at the expense of the net income from the provision of paid services (works).

Based on Table 3, let us assess the implementation of the planned indicators of financial performance of TPI for 2017-2019.

Table 3: Actual fulfillment of planned indicators for financial activity of the SHI "City Polyclinic No. 3" for 2017-2019, %

Indicators	Fulfillment of the plan		
	2017	2018	2019
Total revenue	112.36	115.78	108.75
Total expenses, including	119.41	118.40	111.01
OMI	112.52	115.78	108.84
Budget funds transferred to OMI	100.00	-	100.00

Tables 2-3 show that the revenue and expenditure targets for 2017-2019 are generally not met.

In terms of revenues, there is an excess of actual revenues over the plan. In 2017, the excess was 112.36% of the budgeted targets, in 2018 - 115.78%, in 2019 - 108.75%.

The increase in current indicators is compensated by the increase in funding from the OMI and at the expense of the provision of paid services for core activities. Thus, in 2017, RUB 14,456 thousand were covered due to the increase in OMI (increased by 12.52%) and 8,242.7 thousand were covered due to paid services. In 2018 - RUB 18,568.4 thousand and 3,077 thousand, at the end of 2019 - additional RUB 10,490.5 thousand were received from the OMI. (increased by 8.84%) and 2,711 thousand due to paid services.

Execution of actual expenditures exceeded the approved planned expenditures and amounted to 119.41%, 118.4% and 111.01%, respectively. The dynamics is mainly due to an increase in expenses for utilities and other expenses.

So, the planned estimates of expenses have only partial financial provision and the size of allocations for the maintenance of the SHI "City Polyclinic No. 3" depends on the state of the local budget and the funds of the OMI.

Currently, one of the pressing problems of public (municipal) institutions is the lack of budget financing. Lack of funds does not allow full rehabilitation of fixed assets, much less the development of the institution. All this confirms the inability of the budget institution to provide a sufficient number of free services.

In 2019, expenses of the SHI "City Polyclinic No. 3" amounted to RUB 130,348.2 thousand. The structure of the institution's funding sources for 2019 is shown in Figure 2.

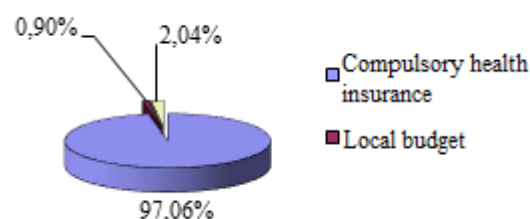


Figure 2: Structure of sources of financing of the SHI "City Polyclinic No. 3" in 2019, %

As shown in Figure 2, the largest part of the hospital's income in 2019 was from compulsory health insurance - 97.06%. This is explained by the implementation of the project on transition to single-channel financing of health care in Tatarstan through the system of obligatory health insurance (OMI), designed to ensure financing of all items of costs and types of medical care provided at the expense of OMI funds. For this purpose, the types of assistance that were previously financed at the expense of the local budget are gradually transferred to financing at the expense of compulsory medical insurance.

Only 0.9% of the outpatient clinic costs are funded from the budget; in 2019, these costs are 100% related to utility bills.

The second place is occupied by funds received from paid activities of the outpatient clinic, they account for 2.04%. All paid medical services provided by the SHI "City Polyclinic No. 3" can be divided into 4 enlarged groups depending on the areas of medical care and types of hospital costs:

- outpatient care (including general therapeutic manipulations, nursing care manipulations, therapeutic manipulations of the physiotherapy department, etc.);
- examinations (including general diagnostic examinations of the departments of functional diagnostics, ultrasound diagnostics, etc.);
- surgeries (abortions, mini-abortions);
- hospital.

Long-term and short-term financial planning and financial management in the SHI "City Polyclinic No. 3" should be carried out exactly for these groups of services.

So, the analysis and assessment of financial management of the SHI "City Polyclinic No. 3" for 2017-2019 revealed the following problems:

The share of revenue settlements decreases from 0.41% in 2017 to 0.12% in 2019. Such dynamics is associated with a decrease in both settlements on income from the provision of paid services and settlements with payers on property income (received from the lease of the organization's premises);

Expenditures from services in 2017-2019 exceed revenues by RUB 12,432.2 thousand, 3,223.2 thousand and 247 thousand, respectively;

Planned estimates of expenditures have only partial financial support and the amount of allocations for the maintenance of the SHI "City Polyclinic No. 3" depends on the state of the local budget and funds of the OMI;

Actual funding in 2017-2019 is higher than the approved planning targets. Revenue and expenditure targets for 2017-2019 are generally not met. In terms of revenues, the Company achieved 112.36% in 2017, 115.78% in 2018, 108.75% in 2019. This is due to additional funding of planned funds from the OMI. The execution of actual expenditures exceeds the approved expenditures by 119.41%, 118.4% and 111.01%, respectively. This is mainly due to an increase in utility bills and other expenses of the institution.

It should be noted that the practice of foreign companies providing voluntary health insurance policies to their employees as part of the social package is becoming widespread in Russia. Undoubtedly, insurance companies, providing AMI services, cooperate with various public and private medical institutions, with the SHI "City Polyclinic No. 3" has a significant competitive advantage in the market of medical services, especially in the sector of research and operations.

One of the directions for implementing marketing policy in the SHI "City Polyclinic No. 3" is to increase revenues for paid services by stimulating demand and active cooperation with insurance companies that provide voluntary health insurance. To assess the effectiveness of the proposed project, a matrix scenario modeling method was used, taking into account negative, positive, and weighted average scenarios. The advantage of the applied model as a method of assessment of efficiency of investment projects is that it allows, by varying the two main variables (discount and expected growth in demand

for services), to determine the effectiveness of projects for both individual groups of services and for commercial activities of the outpatient clinic as a whole.

The project was planned on a monthly basis for 2020, which allowed for the seasonality of demand for some services. It is supposed that conditions of cooperation between the SHI "City Polyclinic No. 3" and insurance companies provide for 15% discount for outpatient and polyclinic services, 13% discount for in-patient services, 7% discount for examinations and surgeries.

So, the weighted average annual net cash flow of the project under consideration equals to RUB 260.5 thousand. Net cash flow for the project varies from RUB 7.65 thousand in July for the negative scenario to RUB 41.52 thousand in November for the optimistic scenario.

When implementing the considered project with the given variables (the value of the discount for voluntary health insurance and the expected increase in demand for services) the SHI "City Polyclinic No. 3" in the forecast for 2020, without actually making any direct costs, due to cooperation with insurance companies and using its competitive advantages in comparison with other medical institutions (availability of modern equipment and highly qualified specialists), both public and private, can get from (RUB 2,711 thousand) by 9.61% compared to 2016.

It should be taken into account that the calculations used rather low indicators of average monthly and average annual growth in demand for paid services (about 9% for the weighted average scenario), while the actual increase in demand in long-term cooperation with large insurance companies on voluntary health insurance can be much higher. This cooperation can become a significant additional source of profit for the outpatient clinic from the provision of paid medical services due to the increased demand for them while providing discounts on various groups of services.

5 CONCLUSIONS

Thus, increase of cash inflow in the studied organization, as well as in similar local structures of health care system of RT, is possible only due to increase of demand for paid medical services of the hospital, with relatively constant, adjusted for inflation, price level. One of the ways to stimulate the growth of demand for paid medical services is the

cooperation of polyclinics with insurance companies that provide voluntary medical insurance.

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