

# Analytical grouping of accounting for wages in health care institutions

Elena Golova<sup>1,\*</sup>, Irina Baranova<sup>1</sup>, and Marina Gapon<sup>1</sup>

<sup>1</sup> Omsk State Agrarian University named after P.A. Stolypin, 8E, Fizkulturnaya street, 203, Omsk, Russia

**Abstract.** An important factor in the uninterrupted work of healthcare is a modern and decent salary for medical personnel. This issue has become especially acute in coronavirus infection when all the problems that have accumulated in the field of healthcare have become especially urgent. There was a situation of a shortage of medical personnel and the need for round-the-clock work, which led to the issue of incentive and compensation payments. In this regard, accounting is one of the innovative links that ensure uninterrupted payments to employees of medical institutions. All facts of the economic activity of the institution must be documented. However, the existing set of documentation is not always able to ensure the prompt provision of information on payroll and incentive payments, even in the context of accounting automation. The article contains research of the workflow organization in terms of remuneration on the example of one of the medical institutions in the Omsk region. The study revealed the need to improve the accounting area as one of the ways of innovative development. The article proposes a new analytical accounting register, which allows presenting information on charges to medical personnel in the context of personnel categories and comparing analytical and synthetic accounting data in terms of the amounts of accrued wages. It is proposed to integrate the proposed document into the Sail Budget 7 program, the Payroll module, which will make the calculation process more convenient, less labor-intensive, and will allow the data transfer process to be carried out automatically.

## 1 Introduction

The health care system is one of the basic elements of the quality of life of the population of any country and an area open to innovation. It is healthcare that ensures life expectancy and dignified self-awareness of a person. A comfortable standard of living is not possible in this area without a well-applied system. Health care is going through tough times right now. Nevertheless, according to the Decree of the President of the Russian Federation of 06.06. No. 254 "On the strategy for the development of healthcare in the Russian Federation for the period up to 2025" listed the threats that may arise in the development of this area. Considering the importance and significance of this system for the population of Russia, the state should always be ready for the manifestation of various dangerous epidemiological situations. The provision of hospitals with personnel plays an important role in this. Reducing the cost of financing the health sector led to the fact that staff shortages came to the fore during the pandemic, which showed the urgency of this issue and the need to address it. The staffing issues are especially relevant today, primarily due to the low level of wages, which served to make various decisions at all levels of government to increase the average wage and optimize the structure of the wage fund and the level of part-time employment [1]. In this regard, accounting is the source of information for the analysis of medical personnel. It is obvious that labor costs in the structure of total expenditures of budgetary

health care institutions occupy the largest share. Consequently, the section for accounting for payroll calculations is the most voluminous, labor-intensive, and responsible. In addition, this section interacts with other services of any institution: the planning and economic department, the personnel department [2].

Currently, much attention is paid to the study of accounting in health care. This situation is understandable: the growth and spread of coronavirus infection made us look at the financing of this area differently. The study of the peculiarities of accounting in non-profit organizations in domestic practice was carried out by such scientists as: E.A. Ananieva, M.V. Belousova, A.S. Bakaev, E.R. Bakhankova, N.P. Balandina, R. Busse, A. R. Gazizova, N. A. Koshevarova, G.V. Kuzmin, I.N. Lozhnikov, A.S. Morozov, S.I. Oparina, V.I. Radachinsky, S.N. Starostin, V.V. Semenikhin, I.A. Feldman, K. A. Fedotova, O. V. Flek and others. Despite deep research in the field of accounting in budgetary health care institutions, it should be noted that the following issues still remain unaddressed: the validity of government funding, the reflection in the accounting system of cash flows from several budgets simultaneously, as well as the formation of a system of accounts and reporting in hospitals, the pricing of medical services, the lack of attribution of various kinds of costs to the cost of services and other problems [3].

In the context of the spread of coronavirus infection, financing of medical institutions came to the fore. The

\* Corresponding author: [ee.golova@omgau.org](mailto:ee.golova@omgau.org)

source of information, in this case, is often accounting. It serves as a link between the authorities and the health care system. Therefore, well-organized and well-established accounting is of paramount importance. An important role in providing the information is assigned to the organization of document circulation. Fundamental in accounting is primary accounting and document flow, chart of accounts, accounting forms, and reporting forms [4]. However, recently there has been a need to form the forms of primary and consolidated documentation in a format that would make it possible to present information in the following way. It is necessary to provide generalized information about the accrued payments by medical workers in the context of various categories of workers. Such information could serve as a basis for the formation of operational, statistical reporting of health care institutions. In this regard, we believe that it is necessary to develop a system of an analytical grouping of the payroll of medical workers [5].

The subject of study is a set of theoretical and practical aspects related to document management and the creation of a perfect system of an analytical grouping of the wage fund. Work in these areas will make it possible to increase the transparency and efficiency of charges to medical workers in the context of personnel groups, types of charges, and sources of funding. The study's practical significance lies in improving the individual stages of the workflow for organizing the accounting of payments for labor in budgetary healthcare institutions. The object of the research was the activities of budgetary healthcare institutions of the Omsk region.

The purpose of this study is to develop a system for analytical grouping of the accrued wages fund, which makes it possible to evaluate it in the context of personnel groups, types of charges, and funding sources for subsequent analysis and compilation of operational, statistical reporting of health care institutions.

## 2 Materials and Methods

The methodological basis of the study is the general scientific principles of the study, suggesting an integrated and systematic approach. The economic substantiation of the main conclusions and recommendations was carried out based on general scientific techniques and methods, such as analysis and synthesis, induction and deduction, comparison, generalization. To process the initial information, the standard software package "Microsoft Word," "Microsoft Excel" was used, as well as the automated accounting system "Software package" PARUS – Budget 7" in terms of the modules "Salary" and "Accounting" [6].

## 3 Results and discussion

Forms of primary accounting documents for budgetary institutions, accounting registers, as well as guidelines for their application, approved by Order of the Ministry of Finance of Russia dated March 30, 2015, No. 52n "On

approval of forms of primary accounting documents and accounting registers used by state authorities (state bodies), local self-government bodies, governing bodies of state extra-budgetary funds, state (municipal) institutions, and Guidelines for their application." Documentation in medical institutions must be properly maintained following the above requirements, which are indicated in Order No. 52. However, we believe that important factors are compliance with all regulatory requirements and the correct documentation of primary and consolidated accounting documents. The reason is that wages are calculated based on their basis, the timeliness and accuracy of settlements with employees, and the state regarding taxes and insurance premiums [7]. To substantiate the purpose of the study, let us consider the procedure for calculating wages in one of the medical institutions – the budgetary health care institution of the Omsk region "City Children's Clinical Hospital No. 2" (after this – the Institution). The collective agreement establishes the current remuneration system in the Institution, the Regulations on the remuneration of employees of the Institution, approved by order of the chief physician of 03/18/2016, No. 108, adopted following the current legislation, other applicable regulatory legal acts. Following the Regulation, the remuneration system in the Institution consists of two parts, one of which is basic and involves the inclusion of salaries according to the position, various kinds of incentives, as well as compensation payments, and other payments. In turn, official salaries are a fixed amount and are spelled out in the Regulations, which is established according to qualification groups by position. Institutions can establish the incentive part and compensation payments in absolute or relative terms; however, this must be indicated in the Regulation. The entire wage fund in institutions is divided into the basic fund and the additional one. The primary salary fund of medical personnel consists of salaries, compensation, and incentive payments, which are assigned according to the intensity of work of the employee of the Institution involved in the organization and implementation of entrepreneurial activity and an increase for the presence of a qualification category.

The distribution of the additional fund is carried out based on an expert assessment of the work of medical and pharmaceutical personnel prepared by a commission that appoints such payments to employees [8]. The main analytical form required for analyzing wage costs, including distributing the fund of incentive payments, is a chess sheet for individuals on accrued wages. There are more than 500 lines and 99 columns. Its processing is carried out by the planning and economic department by hand twice a month (Fig. 1). Considering the organization of work on the interaction of settlements in the Institution, it is obvious that this information has to be regrouped manually, which requires labor time. In addition, the likelihood of errors in the preparation of reports and operational information for the manager increases. Consequently, we have determined the purpose of the study, which requires improvement in the accounting of labor costs – the

organization of analytical accounting, capable of ensuring the systematization and grouping of

information in a convenient and understandable form for the organization of management accounting.

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Sheet for accruals												
2	Period: November 2019												
3													
4	Formulated for all personal accounts with accruals												
5	Calculation of salaries; Calculation of salaries of state employees, FSS benefits, young professionals, lump sum payments, other benefits, secondary job calculations												
6													
7													
8	Formed 12.05.2021 13:06:12												
9	Accruals												
	Personal account	SNILS	Position	Subdivisor	Norm	Actually worked out	remuneration	Secondary job	Scheduled duty	payments for harmfulness	Secondary job payments for harmfulness	Scheduled duty harmfulness	Total
10													
11	1	2	3	4	5	6	7	8	9	10	11	12	99
12					156	156	23400			936			83430
13					144	144	11400			456			35902
14					156	156	12000			480			27513
15					156	78	15000	6000		480	240		7176

Figure 1. Fragment of the chess payroll for November 2019

The accounting policy was approved for the purposes of accounting in the Institution by order of the head of the Institution dated December 29, 2017, № 203. According to the provisions of the accounting policy, the head is responsible for the organization of accounting, compliance with the law when performing business operations, storage of accounting documents in the Institution. At the same time, the accounting department fulfills the obligation to maintain accounting records. Also, the accounting policy established a workflow schedule, a fragment relating to the investigated accounting area. Expenses are accounted for using the codes of the budget classification approved by Order № 65n. An account working chart is approved in the appendix to the even policy, in which the accounts are included; however, they do not have an analytical code. Accounting in the Institution is carried out using the program "Sail 7 – Salary" [9]. Analytical accounting systems are based on the use of personal accounts of employees with whom the Institution has entered into an employment contract or civil law contracts. All information is entered and systematized based on primary documentation for payroll accounting. This information is transferred on a cumulative basis in the Journal of calculations for wages, salaries, and scholarships № 6. This Journal is kept separately for each source of financial support of activities and is automated. This operation is carried out by exporting the generated postings of their complex for wages to another automated complex, "Parus Budget-8 Accounting." However, in our opinion, the organization of analytical accounting of payments for labor in the Institution requires a separate consideration [10].

The accounting policy of the Institution enshrines the provision on maintaining analytical accounting of these expenses in the personal accounts of employees with whom labor contracts have been concluded and other individuals with whom civil law contracts have been concluded. At the same time, this provision does not specify the analytical accounting register, regulated by paragraph 257 of Order No. 157n. It follows from this order that the analytical accounting of payments for wages and scholarships is kept in the Journal of calculations for wages, salaries, and scholarships in the manner established by the Institution as part of the

formation of accounting policies. In fact, analytics on accrued wages for subsequent analysis and various reports are carried out by the Institution in the chess register. This statement is quite lengthy and requires additional processing before using the data on the accrued wages of the primary person of the medical Institution. In modern automation, we consider these processes unacceptable in an institution because they require additional labor time for employees [11].

#### 4 Conclusion

In order to improve the workflow process for calculating the salary of medical personnel, we propose to consider the possibility of detailing the analytical code of the accounting account in order to separate the accrued amounts of salary in the context of categories of the primary personnel of medical workers (Fig. 2).

No	Analytical code of a synthetic invoice	Code of the type of financial support for the activity	Synthetic invoice	Name of the type of financial security (activity)	Note
Applied analytical accounting account					
1	9011390000000110	7	30211	Funds for compulsory health insurance	It is applied by the BUSOO in accordance with the approved FHD Plan
Suggested analytical accounting account					
1	0901139000000081	7	30211	Funds for compulsory health insurance	It is used for grouping the amounts of payroll payments by the category of personnel "Doctors"
2	09011390000000C1	7	30211	Funds for compulsory health insurance	It is used for grouping the amounts of salary accruals by the category of personnel "Secondary medical personnel"
3	09011390000000P1	7	30211	Funds for compulsory health insurance	It is used for grouping the amounts of salary accruals by the category of personnel "Administrative and managerial personnel"
4	09011390000000N1	7	30211	Funds for compulsory health insurance	It is used for grouping the amounts of payroll payments by the category of personnel "Other personnel"

Figure 2. Author's version of the working chart of accounts using analytics in the context of medical personnel

The proposed detailing will allow analytical accounting registers to form in a generalized form without specifying a specific person. The purpose of the analytical accounting registers will be efficiency in the preparation of analytical information and the timeliness and accuracy of the provision of monitoring, reports, and other operations [12].

The introduction of a detailed account of analytical accounting will allow comparing the data of analytical and synthetic accounting in terms of the amounts of accrued wages in the context of categories of employees of the main personnel. At the same time, there is a risk associated with the impossibility of implementing these proposals. This process is due to the centralization of accounting organization by the Ministry of Health of the Omsk region. In order to minimize this risk, it is proposed to develop an analytical accounting register form based on the available capabilities of the Parus Budget 7 software product, payroll module. In the "Personal account" tab, in our opinion, the detailing "Personnel category" should be added: doctors and pharmacists; nursing staff; administrative and managerial; other personnel (Fig. 3).

Personal account	SNILS	Post	Category	Division	Personnel category
1	2	3	3	4	5
					Doctors and pharmacists
					Average medical staff
					Administrative and managerial personnel
					Other personnel

Figure 3. Author's fragment of the "Personal account" tab

In continuing to improve the workflow in terms of remuneration, we consider it necessary to introduce into the work of the program the report form "Summary of accrued wages by categories of workers" (Fig. 4).

Institution: BUZ NGO "City Children's Clinical Hospital No. 2 named after V. P. Bisyarina"					
Structural division: Ministry of Health of the Omsk Region					
Name of the founder					
Name of the budget					
Unit of measurement					
Summary of accrued wages by category of employees for the period " " 20					
Name of payments	Administrative and managerial staff	Doctors	Secondary medical personnel	Other medical personnel	Total
Salaries					
Compensation payments					
Payments to employees for harmful working conditions					
Premium for working with state secret information					
Payments for working in conditions that deviate from normal conditions	Combining professions				
	Increasing the scope of work				
	Performing the duties of a temporarily absent employee				
	Overtime work				
	Working at night and holidays				
Working in other conditions that deviate from normal conditions					
Payments based on the district coefficient					
Incentive payments					
Intensity and high results	Labor intensity allowance				
	Award for the performance of particularly important and responsible work				
	Award for high performance				
Quality of work performed	Premium for the presence of a qualifying category				
	Premium for the performance of employee performance indicators				
Bonus payments based on the results of the period					
Basic salary total					
Other payments					
Total					

Figure 4. The author's form of the analytical accounting register "Summary of accrued wages in the context of employee categories."

Thus, the need to improve the organization of analytical accounting of these calculations was identified. A system of an analytical grouping of the accrued wages fund "Summary of accrued wages by categories of employees for the period" was proposed for implementation, the implementation of which is possible in two ways:

- by detailing the analytical code of account 302 11 "Payroll calculations," – a set of the author's working chart of accounts for this account has been developed;
- by introducing additional detailing "Personnel category" in the "Personal account" tab "Software package" PARUS – Budget 7 "module on wages.

## References

1. A.G. Basova, *Problems of Science*. **4 (17)**. 53-59. (2017)
2. O. P. Goleva, Z. B. Tasova, O.B. Kun, E. S. Tkachenko, A.V. Sabaev *Health Economics: A Study Guide*. (Omsk: Publishing house of Omsk State Medical University, 2019)
3. E. E. Golova, I.V. Baranova, Yu. G. Balandaeva. *Proceedings of the International Conference on Policies and Economics Measures for Agricultural Development Advances in Economics, Business and Management Research*. Pp. 30-35. (2020)

4. E. Golova, D. Baetova, O. Zaitseva, Y. Novikov *The Fifth Technological Order: Prospects for the Development and Modernization of the Russian Agro-Industrial Sector*. Pp. 103-108. (2019)
5. E.S. Dashkova *VSU Bulletin. Series: Economics and Management*, **2**, 67–74. (2018)
6. F. N. Kadyrov *Economic methods for assessing the effectiveness of medical institutions*. (Moscow: Healthcare Manager, 2019)
7. E. Kalinichenko *Top 10 changes from 2021 for a public sector accountant*. Retrieved from: <https://school.kontur.ru/publications/1972> (2021)
8. R. Mukhamedzhanov, Increase of salaries for doctors in 2021 in Russia by region. Retrieved from: <https://www.9111.ru/questions/7777777771223773/> (2021)
9. V. V. Sidavskaya *Scientific and practical electronic journal Alley of Science*, **16**, 62–65. (2017)
10. V. N. Filatov, *Bulletin of the North-Western State Medical University named after I.I. Mechnikov*, **1**, 87–97 (2017)
11. N. A. Sharapova *Accounting in budgetary and non-profit organizations*, **19**, 9–20 (2017)
12. O.V. Shumakova, M.N. Gapon, O.A. Blinov, V.Y. Epanchintsev, Y.I. Novikov *Entrepreneurship and Sustainability Issues*, **5(4)**, 736-747, (2018)