


## PERSONNEL MANAGEMENT SYSTEM IN HEALTHCARE INSTITUTIONS: FOREIGN AND DOMESTIC EXPERIENCE

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**Abstract:** *The primary role in the organisation of healthcare facilities belongs to the medical worker, and the development of an effective personnel management system is the main task of personnel management managers in this field. The current health care system in Ukraine faces the difficult task of adapting to market conditions of business through systematic restructuring and improvement of its state regulation mechanisms, and most importantly, implementation of the integrated development and management of medical personnel, on which the performance of the system's tasks depends. The article aims to compare the personnel management system in healthcare institutions, considering foreign and domestic experience. In addition, the authors carried out a scientific and theoretical justification of the place and role of personnel management in the healthcare field in the current conditions of the European integration of Ukraine. Within the framework of this study, the authors investigated the directions of scientific publications devoted to personnel management systems in the healthcare field. Data containing bibliographic information about scientific publications in peer-reviewed publications were obtained from the Scopus database. The results showed that scholars research human resources management in healthcare institutions, mainly focusing on personnel development, HRM, total quality management, organisational culture, personal loyalty, leadership, gender issues, and psychological aspects. The analysis of the experience of European countries with a developed healthcare system allows us to conclude that there is a need to implement optimal mechanisms for the development of human resources aimed at training, support, preservation and effective use of available resources, which is one of the important areas of personnel management of the institution. In addition, the reform strategy emphasises the need for cross-sectoral linkages (between education, health, labour and finance sectors), practical analytical justification and alignment of political decisions between sectors of the economy.*

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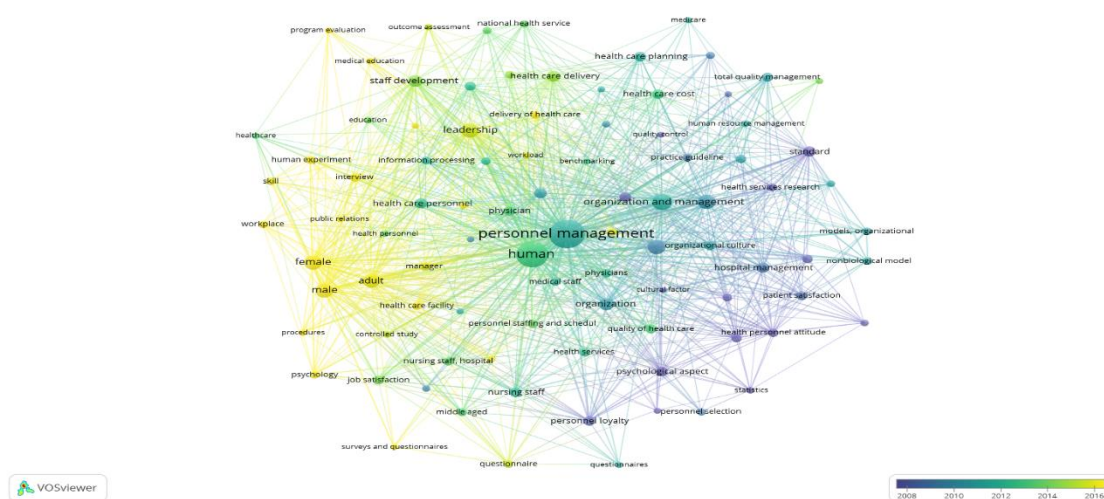
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**Introduction.** The main role in the organisation of healthcare facilities belongs to the medical worker, and the development of an effective personnel management system is the main task of personnel management managers in this field. In modern conditions, the main task of human resources management in health care institutions is a complex process, in the implementation of which it is necessary to take into account the internal specifics of the medical work of the institution to choose solutions in accordance with the current personnel situation, to ensure the organisation of specialists, to organise the rational use of the personnel potential of the organisation, and also monitor the professional development of medical workers. The article aims to compare the personnel management system in healthcare institutions, considering foreign and domestic experience. In addition, the authors carried out a scientific and theoretical justification of the place and role of personnel management in the healthcare field in the current conditions of the European integration of Ukraine.

**Literature Review.** The authors used the Scopus database to study the focus and modern trends of scientific publications in the context of the “personnel management” and “healthcare” investigation. The selection of publications was obtained by applying a filter on “Article title, Abstract, Keywords” with limitation to the subject area “Business, management and accounting”. The survey sample is made out of 119 publications dated from 1985 to 2022. The visualization of the conceptual network to identify the closest matching publication is presented in Fig. 1.



**Figure 1. Visualisation of term network (N = 119, f (frequency) ≥ 5)**

Sources: developed by the author based on Scopus.

The findings showed that the scientists are investigating personnel management in medical institutions primarily focused on staff development, HRM, total quality management, organisation culture, personal loyalty, leadership, gender issues and psychological aspects. Methodological tools for analysing the effectiveness of personnel management are surveys, interviews, and questionnaires to define job satisfaction. The application of software has identified the following key trends: information processing of personnel management, diversity of health care, psychology, leadership, and the importance of self-development in healthcare institutions. Opportunities to increase medical personnel’s efficiency through innovative work organisation and management of labour resources are investigated in (Pavlenko et al., 2021; Kravchenko et al., 2022). In (Opanasiuk et. al., 2021), the authors highlighted tools to improve the current staff assessment system in the health care institution through the social satisfaction criterion and improve system management of quality based on the PDCA cycle. The study (Kotenko et al., 2021) analysed mechanisms to motivate staff in private healthcare facilities and proposed a single integrated system – KPIs.

**Methodology and research methods.** This study involved data analysis and a visual approach to analysing personnel management systems in healthcare institutions. The authors analysed 166 scientific publications indexed in the Scopus database to make a bibliographic study of personnel management in healthcare. To visualise the obtained bibliographic results, the software tool VOSviewer was used.

**Results.** The world community recognises personnel management problems in the health care system. The current problems of personnel management in the health care system in the world are related to the shortage of personnel who provide primary medical care, an excess of specialists of a narrow profile, an imbalance in

the number of doctors and junior specialists with medical education, an excessive concentration of medical workers in large cities. There is a direct relationship between the ratio of the number of employees of healthcare institutions to the population and health indicators. Existing imbalances exacerbate the global labour shortage within countries. There is a shortage of competent personnel in rural areas. Different countries are characterised by diversity in the level of qualification, in the ratio of the number of junior specialists with medical education to the number of doctors. Disparities in the range of major specialities and capabilities also remain significant.

According to estimates by the World Health Organization, at least 2,360,000 health workers and 1,890,000 administrative and support workers are needed to fill the gap, for a total of 4,250,000 health workers (AAMC, n.d.). In addition, the World Health Organization estimates that by 2030 there could be a global shortage of 9.9 million doctors and junior medical professionals. Although the number of doctors and junior medical specialists in Europe has generally increased by about 10% over the past ten years, this increase is probably still insufficient to meet the needs of an ageing population. At the same time, the WHO indicates a significant inequality in the availability of doctors and junior specialists with medical education in different countries - in some countries, there are five times more doctors than in others. The situation with junior specialists with medical education is even more acute, as data show that in some countries, there are nine times fewer of them than in others.

The most problematic in the system of personnel resources of health care are the issues of proper planning of personnel resources, their number, and the elimination of disparities in the structure of the distribution of qualified workers. Over the past 30 years, the functions of economists and administrative workers working in healthcare institutions have intensified in many developed countries. In most countries, the current policy on human resources for health care is based on the obligations of the state and the community together. The government tries to regulate, determine, and meet the real needs of personnel in health care institutions, as well as support, direct and control measures in the field of education and training of personnel and their effective use by society. Created by the WHO, regional human resource observatories are directed at supporting the knowledge base for the health workforce. The observatories provide evidence for policy-making to enhance the health system and improve health care. They monitor and share practical methods and accumulated experience.

Let's turn to the experience of leading countries regarding the amount of spending on the healthcare system in implementing a comprehensive and long-term approach to providing medical services. In the United States, the private business model of health care. Private health insurance can be paid for by the employer and by the citizen. The state undertakes only partial financing of the treatment of vulnerable population groups (Medicaid). This system has proven reliable due to high competition among healthcare providers.

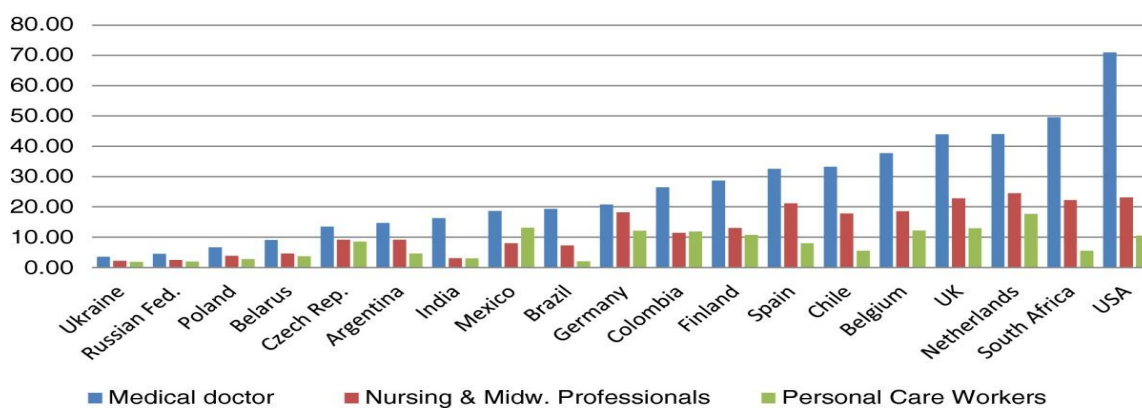
However, despite having the highest level of healthcare spending in the world, the US healthcare payment system is inefficient because it encourages quantity rather than the quality of work performed and increases inequality among different population groups (Kirzinger et al., 2019). The principle of a personalised, comprehensive approach to providing medical services throughout life is realised by "attachment" to a family doctor. Americans approach the choice of a family doctor very carefully, guided by the recommendations of acquaintances or the insurance company, having familiarised themselves with all the information about the doctor on the Internet. The family doctor recommends the patient throughout his life.

In Switzerland, the health care system combines mandatory health insurance and a market-based approach to health care, which gives citizens easy access to health services. Basic mandatory social insurance policies cover the cost of a single list of services regulated by the state. The list includes outpatient and inpatient treatment, medical assistance at home, preventive measures, for example, routine medical examinations, screening for early diagnosis of certain diseases, and vaccination. Moreover, a system of patient co-financing medical care has been implemented in Switzerland. Co-payments are 10% of the cost of medical services and 20% of the cost of original prescription pharmaceuticals. This approach allows for a relatively low burden to increase and distribute responsibility for health care between the state and citizens.

Japan's economic miracle has affected the healthcare system. During its formation, the emphasis was primarily on preventive medicine. The main goal of Japanese health care has become the availability of medical services to all citizens of the country without exception at any time and everywhere with a minimal fee for them. Since the 1970s, the focus has shifted to increasing the number of doctors, improving the medical education system, and increasing the state's share in financing medical services. Based on the current realities of the demographic situation in Japan, a significant item of public spending on the health care system is the support of the elderly population: the provision of free medical insurance and medical and health vouchers not only to national but also foreign sanatoriums. The main feature of Japanese healthcare is complete

digitalization and automation of the treatment process. This system sometimes seems soulless; it allows you to instantly obtain comprehensive data on the state of health during your life, but also to practically exclude the human factor (medical error, violation of medical ethics, etc.).

An essential issue in the personnel management system in the field of health care is the issue of work motivation. Even within one national healthcare system, one cannot rely on general principles and factors of staff motivation. Research shows that in such complex and differentiated strategies, employees settle for those places that more closely satisfy their individual preferences. Moreover, the selection can occur both at the stage of choosing a profession and training, as well as further narrow specialization, and later, when the employee changes specialization, undergoes additional training, etc. Thus, a recent study of the motivation of family doctors in Switzerland revealed their apparent differences from other groups of specialists in this field: they are not very interested in a career. An optimal balance between professional and personal life is important (Buddeberg-Fischer et al., 2008). Among them are more women and family people with children than the average sample. It is not surprising that the possibility of partial (part-time) employment and a flexible work schedule are among the important factors determining work attractiveness. The motivation system for this group of doctors should be different from the one used, for example, for specialists working in hospitals. When building modern combined payment systems that combine explicit and implicit, internal and external incentives, one must remember: any such strategies require changes at least once every two or three years. The reason is that opportunistic behaviour can nullify any motivational effect once employees adapt to new conditions. Improvement of labour payment systems should be permanent. Figure 2 shows the gross median standardised wages for medical doctors, nursing and midwifery professionals, and personal care staff in health services.



**Figure 2. Median gross standardised hourly wages, USD**

Sources: developed by the authors on the basis of (Buddeberg-Fischer et al., 2008)

In Ukraine, the costs of the health care system barely exceed the critical level determined by the World Health Organization. The key parameters of health expenditure in the Ukrainian healthcare system are presented in Table 1.

**Table 1. Key statistic of health expenditure in Ukraine**

	2000	2006	2012	2019
Health spending US\$ per capita (CHE)	35	148	275	2019
Government health spending % Health spending (GGHE-D%CHE)	47,3%	60,4%	52,6%	44,8%
Out-of-pocket spending % Health spending (OOPS% CHE)	48,4%	36,1%	43,9%	51,1%
Priority to health (GGHE-D%GGE)	7,1%	8,7%	7,6%	7,7%
GDP US\$ per capita	662	2 312	3 867	3 496

Source: developed by the authors on the basis of (Global Health Expenditure Database).

In 2021, the volume of expenditures of the State Budget of Ukraine on health care increased by 30.3% compared to the previous year and amounted to 173.6 billion.

Despite the existing infrastructure, the availability of a scientific base and highly qualified specialists, and specific positive transformations that have taken place in recent years, Ukraine's backwardness in the health



care system persists. According to the results of a study conducted by the international consulting company The Boston Consulting Group, several problems of medicine were highlighted, without solving which it is impossible to increase human capital, namely:

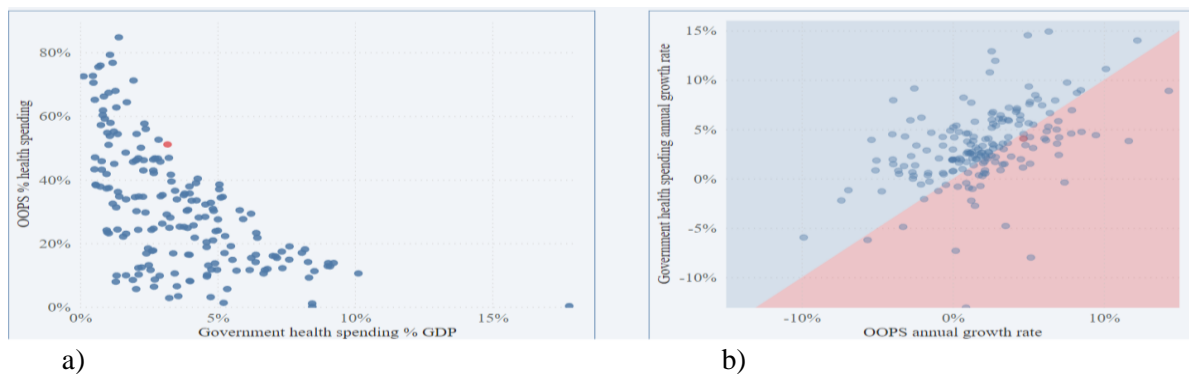
- low level of patient responsibility (unhealthy lifestyle, ignoring the doctor's recommendations, self-medication).
- disproportion of the elements of the treatment chain (exclusive attention to direct treatment, lack of adequate scope of prevention, diagnosis and rehabilitation).
- information and technological backwardness (lack of integrated and open data on the health of a specific patient, modern technological capabilities).
- outdated standards and others.

Distinctive features of Ukraine's health care personnel resources are higher indicators of the supply of medical personnel and lower indicators of the supply of junior specialists with medical education compared to world data. The average indicator of the provision of medical personnel in the city is more than three times higher than the provision in rural areas.

To achieve quick and effective results, one should choose an anticipatory scenario for implementing innovations in the health care system, adopting the experience of countries that have already successfully implemented reforms in this area. Using foreign expertise in the formation of personnel policy in selected areas could increase the efficiency of using personnel resources in the health care of Ukraine. There have been specific shifts in the conceptual understanding of the need to overcome fundamental differences in the position of medical personnel in Ukraine and abroad - a significant increase in their remuneration. But even at the conceptual level, the tasks of changing the organisational and legal status of medical activity, changing the forms of employment, and changing the ratio of the basic and stimulating part of the salary have not yet been set.

As of May 2021, there are 147.4 thousand doctors of all specialities and 1 thousand 186 hospital institutions in Ukraine. The largest number of doctors are in Kyiv (14.6 thousand), Lviv (11.9 thousand) and Dnipropetrovsk (11.5 thousand) regions, and the least – is in the Luhansk region (1.9 thousand). The most significant number of medical institutions is located in Dnipropetrovsk (103), Lviv (90) and Kharkiv (76) regions. In addition, 273 thousand 526 middle-level medical personnel work in Ukraine: the most in Dnipropetrovsk and Lviv regions (20 thousand each), Kyiv (18.2 thousand) and Kharkiv (16.3 thousand) regions; the smallest – in Luhansk region (4.5 thousand). There are also 11,278 paramedic-midwifery centres operating in the areas. Most of them are in Lviv (888), Khmelnytskyi (738), Ternopil (697) and Vinnytsia (688) regions. There are 107 FAPs in the Mykolaiv region (SlovoDilo.ua, 2021).

Following the Law of Ukraine On the Sustainable Development Strategy of Ukraine by 2030, ensure the financing of health care (the total volume of public and private expenditures) at the level of no less than 8% of GDP with a priority direction (up to 40% of all expenditures) to primary health care (UNDP, 2017). Achieving the required quantity, quality and relevance of HCRCs will require matching the emerging needs of political and financial decisions regarding training and the health labour market. Out-of-Pocket share of health spending and government health spending as a share of GDP and Growth of per capita government health spending and OOPS in real terms, 2009-2019 are presented in Figure 3. The red spot is data for Ukraine.



**Figure 3. a) OOPS share of health spending and government health spending as a share of GDP, 2019; b) Growth of per capita government health spending and OOPS in real terms, 2009-2019**  
Sources: developed by the authors on the basis of (Global Health Expenditure Database).

Separately, it is worth considering the personnel management of junior specialists with medical education. This profession provides a crucial link to medical care and requires high professionalism, organisation, discipline and being psychologically prepared. The main thing is that junior specialists should be able to keep their feelings under control during communication and, at the same time, assess the patient's condition critically. In addition, junior specialists occupy the most significant percentage of the workforce of the health care system worldwide. The recovery process depends on their qualification, competence, and professionalism; they devote a lot of time to the patient, see the improvement or deterioration in the patient's condition, timely and successfully choose words for support, get closer and have trust. Junior specialists in medical colleges acquire a junior specialist's education level and stop there. But in Ukraine, specialists with a full higher education level are already being trained, namely bachelor's and master's degrees. However, today higher education is not a mandatory requirement for working as a medical nurse, even a chief or senior nurse.

Reforming the health care system for junior specialists with medical education will open up more opportunities, functions, and financial well-being, encouraging doctors to continue development and self-improvement. An essential factor for this is the current level of education, continuous improvement of their qualifications, and improvement in working and rest conditions.

**Conclusions.** The health care system can function effectively and appropriately respond to new challenges if there is a sufficient number of medical personnel with the necessary skills and work where they are needed, in conditions that promote their motivation and involvement. To achieve the best results, a balanced approach is needed, which takes into account the peculiarities and needs of the doctor for his effective work on the one hand, and the task of the national health care system, which is responsible for the control and distribution of financial and labour resources, as well as regulating supply and demand – the needs of the population in medical services, the availability and distribution of healthcare personnel resources – on the other hand. Observing the balance of interests opens up opportunities for providing effective medical care to the population, which considers the needs of the people and is reasonably balanced (financial resources and labour costs). This requires long-term strategic planning based on information on successful international practices, realistic forecasting, political commitment, adequate political processes, and stable funding. The global strategy emphasises the importance and necessity of cross-sectoral linkages (between the sectors of education, health care, labour and finance), adequate analytical justification and alignment of policy decisions between sectors of the economy. The urgent need for a solution is a change in the methods of stimulating and encouraging personnel, using personnel resources and forming the wage fund. It is necessary to apply not only the experience of European countries with a developed health care system but also partially follow the principles of Ukrainian companies in the field of personnel management. It is urgently necessary to implement optimal mechanisms for the development of human resources aimed at training, support, preservation and effective use of available resources, which is one of the institution's essential directions of human resource management.

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**Система кадрового менеджменту в закладах охорони здоров'я: закордонний та вітчизняний досвід**

Головна роль в організації діяльності закладів охорони здоров'я належить медичному працівнику і розробка ефективної системи кадрового менеджменту є основним завданням менеджерів з управління персоналом у цій галузі. Сьогодні спостерігається багато перетворень у сфері охорони здоров'я, але в контексті зміни системи управління персоналом закладу охорони здоров'я досі не запроваджено нових ефективних механізмів та інструментів управління, тому проблема адаптації персоналу медичної сфери до сучасних методів медичного обслуговування, пристосування до функціональних змін у системі управління та змін механізмів фінансового забезпечення залишається актуальною. Метою статті є порівняння системи кадрового менеджменту в закладах охорони здоров'я, враховуючи закордонний та вітчизняний досвід. Крім того, авторами здійснено науково-теоретичне обґрунтування місця та ролі кадрового менеджменту у сфері охорони здоров'я в сучасних умовах європейської інтеграції України. У рамках даного дослідження автори дослідили напрямки наукових публікацій, присвячених системам кадрового менеджменту у сфері охорони здоров'я. Дані, що містять бібліографічну інформацію про наукові публікації в рецензованих виданнях, були отримані з бази даних Scopus. Отримані результати показали, що вчені досліджують управління персоналом у медичних закладах, головним чином зосереджуючись на розвитку персоналу, HRM, загальному управлінні якістю, організаційній культурі, особистій лояльності, лідерстві, гендерних питаннях і психологічних аспектах. Аналіз досвіду європейських країн з розвинутою системою охорони здоров'я, дозволяє зробити висновок про необхідність впровадження оптимальних механізмів розвитку кадрових ресурсів, спрямованих на підготовку, підтримку, збереження та ефективне використання наявних ресурсів, що є одним із важливих напрямів кадрового менеджменту закладу. Крім того, стратегія реформування наголошує на необхідності міжсекторальних зв'язків (між секторами освіти, охорони здоров'я, праці та фінансів), ефективного аналітичного обґрунтування та вирівнювання політичних рішень між секторами економіки.

**Ключові слова:** кадровий менеджмент, охорона здоров'я, мотивація, медичний працівник, ВООЗ.