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The Impact of Health Care Reforms on Improving the Quality of Medical Services: International Experience

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Abstract
The study of foreign experience in the field of reforming the medical industry is relevant at the present stage. Therefore, the purpose of the article is to summarize the experience of countries that have successfully implemented the reform of the health system, to identify mechanisms and tools for improving the quality of medical services.
The article examines the concept of "quality of medical services". Based on the expert survey, the directions of improving the quality of medical services in the process of implementing health care reforms have been identified. Following these directions, the international experience of reforming the health care system to improve the efficiency of the use of budget funds for the provision of medical services, ensuring equal access to medical services for urban and rural populations, and the development of primary health care has been considered.
The study concludes that improving the quality of medical services in the process of health care reforms is possible with the implementation of specific activities based on the use of international experience in health care reform.

Keywords: Availability of Medical Services, Financing of Health Care, Primary Health Care, Quality of Medical Services.

1. Introduction

Public health governance is defined by the state's public health policy, which is focused on ensuring equal access to health care for each person and individual communities. The state health policy is formed and implemented following the strategic directions defined by the World Health Organization. Twelve principles of health organization for any national system were defined at the 17th

1963 (New York) and 35th 1983 (Venice) WHO sessions, which are formed from the position of full respect for human rights[1,2].

The essence of health care reforms can be formulated as a significant purposeful effort to improve the health system, which is a set of organizations, institutions, and resources designed to provide any type of health services at the individual or collective level (including through intersectoral interaction), the main goal of which is to strengthen, restore and maintain the health of the country's population[3].

2. Literature Review

The formation of an effective health care model is one of the most relevant areas of scientific research in modern conditions. When analyzing the quality of medical services, researchers focus on the management mechanisms for the implementation of state health policy in the aspect of quality management[4-6], focus on monitoring the problems that the authorized authorities should solve in this area, as well as on the formation of tasks and innovative approaches[7,8].

Therewith, the definition of the quality of medical services is a subjective value category, which is understood variously by different researchers (Table 1).

Table 1 - Definition of the Category "Quality of Medical Services"

Quality of medical services/Source
the result (the so-called technical quality) of the way of using funds (cost-effectiveness), the organization of the provision of services, and the satisfaction of patients[9]
the most favorable result with minimal negatives[10]
technical cost (knowledge, clinical skills, technology), the cost of relationships between people (patient, doctor, nurse, medical staff), and mandatory services (comfort and aesthetics)[11]
it is considered from the point of view of the structure (covers the characteristics of the available resources for providing care, in particular, material resources, qualified medical and managerial personnel, as well as organizational aspects (methods of cost compensation, quality management of medical care), the process (characteristics of the medical care provided, i.e. its validity, adequacy in scope, the competence of staff in choosing methods, consistency of actions) and the results of treatment (survival, functional state, disability in patients with certain initial diseases or conditions, as well as the degree of patient satisfaction with the received care)[12]

Research hypothesis: improving the quality of medical services in the process of health care reforms is possible with the implementation of specific activities based on the use of international experience in health care reform.

Research Problem

- To identify areas for improving the quality of medical services in the process of implementing health care reforms based on international experience.
- To reveal the features of improving the quality of medical services in the implementation of specific areas of activity based on the use of international experience in healthcare reform.

The article consists of an introduction, a literature review, methods, results, discussion, and conclusion.

3. Methods

A literature search has been conducted, relevant literature sources have been selected and their information has been summarized, which allowed achieving the research goal.

The method of system analysis was used (aspects of the quality of medical services were studied and analyzed), as well as the bibliosemantic method (the world experience of healthcare system reform was studied).

The study also used the method of the expert survey in the field of research under consideration. The experts were asked voluntarily to answer a question concerning the main, in their opinion, directions for improving the quality of medical services in the process of implementing health care reforms and to justify these directions, which determined the direction of further research.

The survey was attended by experts in the field of healthcare (20 people). The experts include representatives of the medical profession, whose professional activity is related to management issues in the field of healthcare for more than 8 years.

All participants were warned about the purpose of the survey and the planning of the organizers of the study to publish the results of the study in a generalized form.

4. Results

The results of the expert survey showed that the main directions of improving the quality of medical services in the process of implementing health care reforms are the following (Table 2).

Table 2 - The Impact of Health Care Reforms in Improving the Quality of Medical Services

No.	Directions for improving the quality of medical services in the process of health care reforms	%*
1	The efficiency of the use of budget funds for the provision of medical services	85%
2	Ensuring equal access to health care for urban and rural populations	80%
3	Development of primary health care (PHC)	70%

Note: compiled based on an expert survey; * – percentage of expert mentions

Following certain directions, we will try to reveal the features of their implementation in the reform of the health care system in different countries.

5. Discussion

The effectiveness of the use of budget funds for the provision of medical services can be considered in the example of the financial support system for healthcare in the UK, which is an example of a budget model for the formation of industry resources. The National Health Service (NHS) plays a leading role in providing health care to the population, accounting for 85% of the corresponding public expenditure. The remaining medical expenses are covered by other sources (direct payment for medical services and health insurance). Therewith, there is a replacement of direct payment for services with insurance, which is becoming more widespread[13].

Financial resources of the NHS are formed at the expense of budgets of all levels (84%), social insurance contributions (12%), co-payments of the population in fixed amounts, regardless of the type of medical service (4%). If the amount of co-payments does not compensate for the cost of medical services, the difference is covered by the state. About 60% of NHS resources are allocated to pay for medical staff, 20% – for medicines, the remaining 20% is made up of investment, utility, and other operating costs[13].

Until 2013, the UK healthcare funding model had provided for the distribution of the functions of the customer and the provider of medical services. Responsibility for the implementation of the state health policy was assigned to the Strategic Health Authorities. The direct ordering of services and the allocation of budget funds at the local level were under the jurisdiction of the grass-roots units of the NHS, called "trusts".

Primary care trusts, responsible for the provision of primary care, preventive and anti-epidemic measures, have accumulated over 80% of the total health budget. To save costs, their number has been

steadily decreasing over the past decades. The primary level trusts were responsible for: entering into agreements with general practitioners and state dentists to provide medical services; paying for the services of clinics under the jurisdiction of other trusts; conducting preventive measures, monitoring the epidemic situation in the controlled territory, etc. The allocation of budget funds for the maintenance of medical institutions was carried out following the population size and territorial specifics[14]. To save money and improve the efficiency of the use of funds, primary-level trusts were allowed using outsourcing.

About 20% of the NHS's total financial resources went to secondary care trusts (ambulance trusts, mental health trusts, social care trusts, etc.) responsible for providing specialist care, managing hospital operations, and managing budget spending. Under the condition of effective management of financial resources, as well as high quality of service provision, secondary level trusts were entitled to financial and managerial autonomy, which opened up opportunities for them to attract investment funds.

In 2010, the government announced the largest reform of the NHS in the country's history, which was supposed to ensure its decentralization. Only part of the NHS system in England was subject to the reforms, as its units in Wales and Scotland are subordinate to local authorities. The essence of the reform was to transfer control over the budget financing of the health care system (107 billion British pounds sterling annually) directly to doctors. According to the reform plan set out in The Health and Social Care Act 2012, since 2013, up to 80% of the health system budget in England has been transferred to 42 thousand general practitioners (GPs), united in 212 clinical expert groups (CCGs) to make decisions on the use of funds. The system of primary care trusts and strategic health departments was eliminated, but an authorized board with an independent status (NHS Commissioning Board) was established. Therewith, general practitioners were granted the right to order specialized medical services for patients in secondary care trusts on a tender basis[15].

The key objective of the NHS reform was to reduce the administrative costs of the system and direct funds directly to the treatment process. For this purpose, the reform program provided for reducing from 16 thousand to 26 thousand positions in the health management system, as well as releasing about 10 thousand medical personnel. Due to these measures, the government expected to receive savings in the financing of health care in the amount of up to 15-20 billion British pounds sterling annually[15].

Along with curbing the growth of budget funding for the health system, the NHS reform was aimed at introducing market mechanisms in its activities, as well as expanding the role of the private sector in the provision of health services. To this end, in the course of finalizing the reform program,

the restriction on the possibility of private medical institutions participating in tenders organized by general practitioners was removed; the possibility of additional payments for patients to receive better medical care was provided; tax incentives were introduced for persons applying for medical services in non-state-owned institutions; all secondary NHS trusts were granted managerial and financial autonomy[15].

An important aspect of the medical reform was also the improvement of the mechanism for financing care for the elderly, which is relevant in the context of the growing share of the disabled in the structure of the country's population. Following the norms of The Health and Social Care Act 2012, it was provided for the introduction of a personal health budget mechanism for persons in need of long-term treatment. Therewith, patients were given the opportunity to independently maintain the budget of their treatment (budget-holding), determining the volume and structure of medical services. However, such an initiative causes discussions among specialists, since a significant part of people who need long-term care do not have the appropriate knowledge and experience to independently manage funds to ensure the effectiveness of the treatment process[16].

Despite the possible positive consequences of the NHS reform implementation, it was negatively perceived by a part of British society and politics. According to its opponents, the reform will destroy a fairly effective health care system in the country, which, according to expert estimates, functions better than in the United States, Canada, and Germany. Liberalizing the process of ordering medical services by general practitioners and allowing private medical institutions to participate in tenders will lead to a rapid collapse of the network of public hospitals, which do not have sufficient funds and will not be able to withstand competition. Given this, some experts call the reform the first step towards the privatization of the NHS and the abandonment of the state model of healthcare financing[17].

Ensuring equal access to health care for urban and rural populations. The gap between urban and rural health services, according to many scholars, is associated with the focus of funding in areas with a large population. S. Brant, M. Harris, E. Okek, J.J. Rosenfeld[18] cite data that in the 90s. of the 20th century, only 20% of public health expenditures in China went to the rural health system, which served 70% of the country's population. According to M. Vane, V. Chach, L. Sanders, and R. Pong[19], the government's policy of reducing, closing, and centralizing health facilities as a result of the reform of the health system in rural areas harmed the economy of rural communities.

Today, one of the most successful reforms in the field of rural medicine was implemented in Australia in 1996, when a group of Australian scholars developed the program for the sustainable development of rural health "National Framework for Effectiveness". The so-called "University

Faculties of Rural Health" (UDRH) have been established in regional authorities for the successful implementation of this program in five regions of Australia. The UDRH program aimed to provide educational and training facilities in centers outside of metropolitan areas across Australia, thereby helping to attract medical professionals to practice in rural and remote areas. The increase in funding for rural medicine was decided by reallocating resources based on the so-called "rural index". This is a scientifically based indicator that takes into account the problems of remote regions and is added to the articles on rural medicine when forming health budgets. Also, there are almost 130 so-called local hospital networks throughout Australia, which unite small local hospitals to better organize and coordinate the processes of medical care. The patient has the opportunity to get help in any institution and no special referrals are required. A key aspect of the program was the cooperation of the Ministry of Health with educational medical institutions, which began training specialists in rural medicine in special programs and courses[20].

In the United States, rural medicine is funded through project management, which is provided by the appropriate agency of the U.S. Department of Health and Human Services – the Office of Medical Resources and Services (HRSA). The main competence of the mentioned office is to provide leadership and financial support to health care providers in remote rural communities, the residents of which are not insured. One area of HRSA's work is to fund projects to improve the efficiency of rural hospitals, especially small hospitals with less than 200 beds. In addition, HRSA Wellness Center programs support health services for the uninsured through a nationwide network of clinics and mobile medical vans. The main part of the funds is allocated to support 10,400 small clinics and mobile medical vans that visit sparsely populated areas according to the schedule[21].

The Canadian model of rural health, based on the principles of the Ministry of Health's cross-sectoral partnership with the provinces, territories, and municipalities, is somewhat distinctive.

In 2001, the Advisory Council of Ministers on Rural Health (hereinafter referred to as the Advisory Council) was established in Canada to provide advice to the Federal Minister of Health. A network of Rural Health Centers was established under the leadership of the Department of Rural Health, which were based in regional communities with a population of 20,000. up to 60,000 thousand people. There are 150 local community service centers in the state of Quebec alone[22].

In October 2001, the Advisory Board identified four Canadian public policy priorities: 1) healthy rural communities; 2) health through information technology; 3) human resources health; 4) the health of the aborigines.

Intersectoral collaboration in Canada aims to strengthen cross-sectoral, integrated responsibility for improving health care, in particular by making effective use of limited resources and reducing

duplication and gaps in the delivery of health services to rural populations. To this end, the competencies between the federal government and the provinces have been more clearly delineated.

However, despite a set of successful management decisions in the field of rural medicine organizations, the problem of shortage of medical personnel in rural areas remains unsolved in almost all countries of the world. A significant problem, in this case, is primarily the uneven distribution of doctors between large cities and small settlements. Thus, in Canada, 30% of citizens living in rural areas account for only 17% of family doctors, 4% of specialists, and 18% of registered nurses[22].

In Western countries, the main focus in the field of health care in rural areas is on family doctors, general practitioners who are guided in various diseases from therapeutic to gynecological.

Development of primary health care (PHC). WHO documents state that the development of PHC will ensure the implementation of the basic principle of health protection, namely, the inclusion in the health care system not only of treatment, the purpose of which is to restore health, prevent the development of disease, and alleviate the suffering of a sick person, but also prevention, the purpose of which is to protect and promote health[23].

An important point in the priority development of PHC in the health care system is the proximity of the doctor to the patient, which is a sign of the rational organization of medical care[24]. The results of studies[25,26] showed a positive statistically significant correlation between the degree of PHC development and such indicators as mortality from all causes, premature mortality from major diseases of the cardiovascular system. At the macro level, there is a correlation between PHC and GDP per capita, the total number of doctors per 1,000 people, the percentage of the elderly and senile population; at the micro-level, the average number of outpatient visits, the per capita consumption index, alcohol and tobacco consumption.

In the Netherlands, where there is a social health insurance system, since the mid-90s, new organizational forms of integrated health care, or the "bottom-up" approach, have been widely developed – medical care, as much as possible focused on the needs of the patient, is provided based on close cooperation (interaction and coordination) between primary and specialized health care providers, with a clear division of responsibilities and shared responsibility for the final result. The main subject of PHC in the Netherlands is a general practitioner (GP). General medical practice is based on three principles: maximum coverage of the population; the distillation of patients; family orientation[27]. The Dutch National Association of General Practitioners has defined a list of the functions of the family doctor, but with an emphasis on the specific responsibilities of the general practitioner.

In general, it can be concluded that preferences in European countries are given to the development of PHC and family medicine, where PHC dominates in health systems as a cheaper and more affordable link, which satisfies about 80% of patients.

6. Conclusion

The reform of the health care system will have a positive result if national preferences and traditions are supplemented by the effective use of the best international practices. In the course of the study of foreign approaches to the reform of the health system, it was found out that in the process of reforming the health system, it is important to take into account the following components of state policy in this area: the development of tools for the formation of state policy in the field of health; the definition of tasks and goals for state authorities responsible for making appropriate decisions; the optimal allocation of health resources.

International experience in health care reform points to the importance of effective reallocation of public spending over time in the interests of health; demonstrates that almost all states are trying to solve the problem of equal access to health services for rural populations by developing primary preventive care in rural areas and directing efforts to find new forms of health care for rural residents; develop PHC.

In general, summarizing the above, we can conclude that the study concludes that improving the quality of medical services in the process of health care reforms is possible with the implementation of specific activities based on the use of international experience in health care reform.

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References

Garayeva KG, Garayeva SG, Shaxmaliyeva U, Hasanova A, Abdullayeva A. The effect of metrofibroma on the prenatal development of the fetus. *Journal of Research in Medical and Dental Science.* 2020; 8(7): 215-218.

Manerova OA, Markina A Yu. Causes of giving up newborns in modern Russia. *Journal of Advanced Pharmacy Education & Research.* 2020; 10(2): 129-134.

White C. The health care reform legislation: an overview. *The Economists Voice.* 2010; 7(5): 1-6. http://dx.doi.org/10.2202/1553-3832.1815

Dodwad SS. Quality management in healthcare. *Indian Journal of Public Health.* 2013; 57(3): 138-143.

Coskun S, Gulhan Y. TS EN 15224 Healthcare service - the comparison of quality management system to other quality systems in healthcare. *Research Journal of Business and Management.* 2017; 4(3): 410-416.

Tsvetkov VA, Dudin MN, Lyasnikov NV. Analytical approaches to estimate economic security of the region. *Economy of Region.* 2019; 15(1): 1-12. http://dx.doi.org/10.17059/2019-1-1

Heuvel J, Does RJMM, Verver JPS. Six sigma in healthcare: lessons learned from a hospital. *International Journal Six Sigma and Competitive Advantage.* 2005; 1(4): 380-388.

Lim P, Tang N. The development of a model for total quality healthcare. *Managing Service Quality: An International Journal.* 2000; 10(2): 103–111.

Glickman SW, Baggett KA, Krubert CG, Peterson ED. Promoting quality: the health-care organization from a management perspective. *International Journal of Health Care Quality Assurance.* 2007; 19(6): 341–348.

Rashid WEW, Jusoff HK. Service quality in health care setting. *International Journal of Health Care Quality Assurance.* 2009; 22(5): 471–482.

Badri MA, Attia ST, Abdulla M, Ustadi AM. Testing not-so-obvious models of healthcare quality. *International Journal of Health Care Quality Assurance.* 2008; 21(2): 159-174.

Al-Shdaifat EA. Implementation of total quality management in hospitals. *The Journal of Taibah University Medical Sciences.* 2015; 10(4): 461-466.

Cribb A. Organizational reform and health-care goods: concerns about marketization in the UK NHS. *The Journal of Medicine and Philosophy.* 2008; 33: 221-240.

Roland M, Rosen R. English NHS embarks on controversial and risky market-style reforms in health care. *The New England Journal of Medicine.* 2011; 364: 1360-1366.

Wenzl M, Mc Cuskee S, Mossialos E. Commissioning for equity in the NHS: rhetoric and practice. *British Medical Bulletin.* 2015; 115: 5-17.

Appleby J. NHS urgent facilities repairs: is your hospital on the critical list? *British Medical Journal.* 2017; 359: j5479. https://doi.org/10.1136/bmj.j5479

Scott-Samuel A, Bambra C, Collins C, Hunter D, McCartney G, Smith K. The impact of Thatcherism on health and well-being in Britain. *International Journal of Health Services.* 2014; 44: 53-71.

Wang HH, Huang SM, Zhang LX, Rozelle S, Yan YY. A comparison of rural and urban healthcare consumption and health insurance. *China Agricultural Economic Review.* 2010; 2: 212–227.

Qiu Y, Lu W, Guo J, Sun C, Liu X. Examining the urban and rural healthcare progress in big cities of China: analysis of monitoring data in Dalian from 2008 to 2017. *International Journal of Environmental Research and Public Health.* 2020; 17: 1148. http://dx.doi.org/10.3390/ijerph17041148

Gausia K, Thompson SC, Lindeman MA, Brown LJ, Perkins D. Contribution of university departments of rural health to rural health research: an analysis of outputs. *The Australian Journal of Rural Health.* 2015; 23: 101–106.

Wilson AB, Kerr BJ, Bastian ND, Fulton LV. From surviving to community benefit: a proposed rural health services research agenda. *Journal of Hospital Administration.* 2014; 3(5): 104-114.

Blankenau J. Comparing rural health and health care in Canada and the United States: the influence of federalism non-metropolitan. *Policy and Governance.* 2010; 40(2): 332-349.

Hogg W, Rowan M, Russell G, Geneau R, Muldoon L. Framework for primary care organizations: the importance of a structural domain. *International Journal for Quality in Health Care.* 2008; 20: 308-313.

Haggerty J, Burge F, Lévesque JF, Gass D, Pineault R, Beaulieu MD, Santor D. Operational definitions of attributes of primary health care: consensus among Canadian experts. *Annals of Family Medicine.* 2007; 5: 336-344.

Braveman PA. Monitoring equity in health and healthcare: a conceptual framework. *Journal of Health, Population and Nutrition.* 2003; 21: 181-192.

White F. Primary health care and public health: foundations of universal health systems. *Medical Principles and Practice.* 2015; 24: 103-116. http://dx.doi.org/10.1159/000370197

van Weel C, Schers H, Timmermans A. Health care in the Netherlands. *The Journal of the American Board of Family Medicine.* 2012; 25(1): 12-17.