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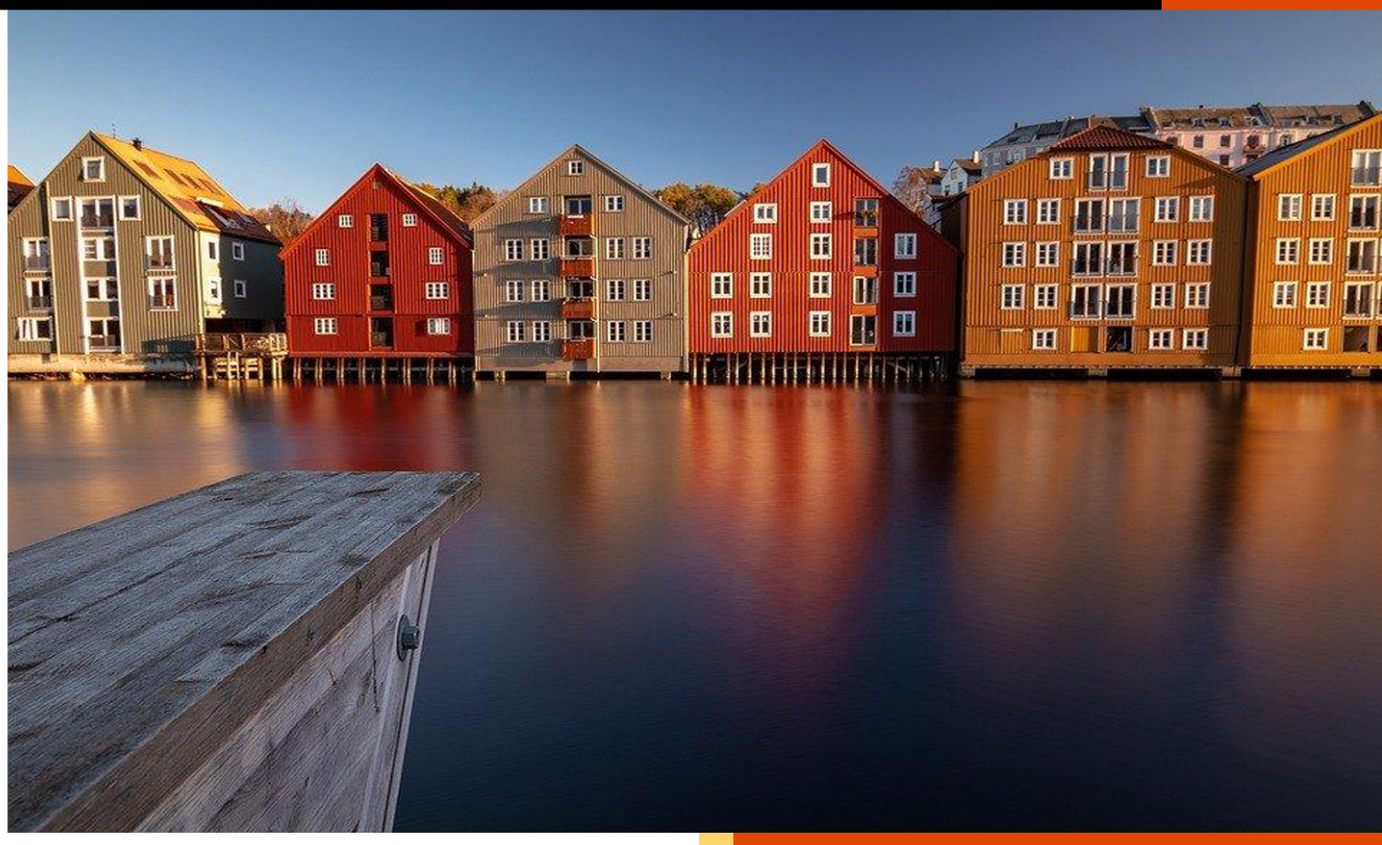

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REGIONAL CARDIOLOGY CENTER BASED ON PPP PRINCIPLES: CONCEPTUAL APPROACHES TO CREATING

Abstract. *Four components for formation of a model of a regional center of cardiology and cardiac surgery have been identified: a set of methods for forming a model, principles of modeling, the formation of the logical structure of the model's activity and modeling technology. They are the basis of conceptual directions for the formation of a model of a regional center of cardiology and cardiac surgery on the principles of public-private partnership. Conceptual directions are the practical methodology for implementation of a complex modeling process of a regional center for cardiology and cardiac surgery and at the same time a strategy for long-term interaction between the state and business in solving the socially significant task of developing innovative high-tech cardiac care for the population of the region.*

Keywords*: regional center of cardiology and cardiovascular surgery, public-private partnership.*

Introduction. High morbidity and mortality rate of Ukrainian population from cardio-circulatory system [1, 2, 3] diseases, insufficient provision of affordable, high-quality, qualified medical care for all segments of the population, regardless of their socio-economic status and place of residence [2], the lack of an effective and transparent model of financing the medical care system focused on the real needs of patients [4], as well as the emergence in Ukraine the legal framework [5, 6, 7] for the development of PPP determine the relevance of the study.

The aim: to substantiate the conceptual directions of the formation of the model of the regional center of cardiology and cardiac surgery (RCCCS) on the principles of public-private partnership (PPP).

Material and methods. General scientific methods of analysis, synthesis, generalization, interpretation of scientific date, as well as systemic and structural functional approachesare used in the study.

Results

Based on the analysis of scientific sources, it was revealed that PPP is a trend in the global practice of healthcare development.

Attracting private capital to the healthcare sector has become an effective factor in introducing innovative treatment methods and modern technological equipment of clinics, ensuring the quality of medical care and creating a digital healthcare system [8, 9, 10]. All this actualizes the development of conceptual directions for the formation of the RCCCS model on the principles of PPP.

The introduction of PPP mechanisms is impossible without taking into account the specifics of the country: organizational structure, legislation, investment climate. The possibility of organizing healthcare institutions on the principles of public-private partnership in Ukraine is stipulated by the following laws: Law of Ukraine dated 01.07.2010 No. 2404-VI "On public-private partnership" [5]; Law of Ukraine dated November 24, 2015 No. 817-VIII "On Amendments to Certain Laws of Ukraine Concerning the Elimination of Regulatory Barriers to the Development of Public-Private Partnerships and Stimulating Investments in Ukraine" [6]; Law of Ukraine dated April 06, 2017 No. 2002-VIII "On amendments to some legislative acts of Ukraine regarding the improvement of legislation on the activities of health care institutions " [7].

In accordance with the current regulatory framework, the organizational and legal form of PPP, which is most suitable for the health care system of Ukraine is a public-private partnership agreement. In our study we consider the implementation of PPP in the form of a contract: creation - ownership - management - transfer to the state. When a private partner, according to the terms of the agreement, invests in a certain object, after which it possesses and manages it within the period specified by the agreement, and after its completion the object is transferred to the state.

For the formation of the model, methodologically, four components were identified: a set of methods for forming a model, principles of modeling, the formation of a conceptual structure of a model and modeling technology.

Methods of forming the model

To form the RCCCS model on the principles of PPP, the following methods were used: a systematic approach and analysis, bibliosemantic, statistical methods, the method of expert assessments, conceptual modeling. The use of these methods made it possible to analyze the experience of implementing PPP projects in the health care systems in developed countries, analyze the incidence of diseases of the circulatory system in Ukraine and the regions, substantiate the systemic integration of region`s medical structures providing medical care to patients with cardiovascular diseases (CVD), and also develop a model of the RCCCS.

Principles of RCCCS modeling:

– study of the laws of Ukraine on the forms of PPP in healthcare and by-laws that determine the organizational and legal basis for the interaction of partners: the state and the private investor;

– development of a modern model of RCCCS on the principles of PPP on the basis of systemic innovative integration of production structures, structures of technological processes, management structure in order to provide the population of the region with affordable highly specialized cardiological care and cardiac surgery;

– integration in the RCCCS model is considered as:

– unification of two services - cardiological and cardiac surgery, providing the main activity of the model in one complex of the RCCCS; - unification of two streams of patients, consumers of paid and free medical services in the RCCCS; - external integration, contractual merger of the consultative and diagnostic department of the RCCCS with cardiologists in district hospitals (on contractual terms);

– planning of the RCCCS's activities aimed at consumers and meeting their needs;

– concentration of the RCCCS functioning on the development of innovative processes and resources (financial, material and technical, personnel, etc.);

– ensuring the quality and availability of guaranteed volumes of services for all segments of the region's population;

– application of the technology of targeted planning of the capacity of the RCCCS - polyclinic, bed capacity, etc. based on the analysis of region-specific data

(analysis of the health status of the population of the region, the network of the cardiological service and the resource base, etc.).

The conceptual structure of the business model of the RCCCSis a combination of the production process strategy based on the principles of PPP, the corresponding goals and prospects, modern technological processes, management, resources (material, technical, financial, personnel), criteria for determining performance indicators, value chains within the RCCCS model , medical standards, predictive economic results.

Modeling technology is a synthesis of a set of methods, methods of activities, functions to achieve the desired result using these tools.

Regulatory measures

– Development of the Charter of the RCCCS. State registration of the RCCCS as a public-private healthcare institution, a legal entity with an independent balance sheet, settlement and other accounts in bank institutions, with separate property, a seal with its own name, letterheads, company name.

– Development of a business plan - substantiation of responsibility for the economic efficiency of activities (to what extent the services will meet market requirements, patients' requests).

– Ensuring the concentration of financial resources of the founders (state and private investor) and human resources on priority innovative areas of the RCCCS's work.

– Formation of the market for medical services, various types of contractual work, paid services.

– Specification of state guarantees for the provision of certain types of free medical care to citizens in the RCCCS.

Organizational arrangements

– Development of an effective structure that provides highly specialized medical care - an integrated functional-organizational model of the RCCCS based on structural differentiation with the allocation of independent organizational modules.

– Substantiation of an effective model of integrated management of the RCCCS with the organization of business process management, management of medical services and the integration of management of disparate objects.

– Equipping RCCCS with modern medical and diagnostic equipment.

– Staffing RCCCS with highly qualified personnel.

– Creation of conditions, opportunities and motivation for high-quality work of personnel.

– Implementation of a system of continuous training and improvement of medical personnel in the RCCCS.

– Ensuring the development of a computer information system to support decision-making.

– Optimization of medical and economic standards.

– Development and implementation of a health care quality management system based on the standards of its provision.

– Step-by-step improvement of medical care for patients with CVD.

– Development of innovations. Expansion of volumes and introduction of new types of high-tech assistance.

– Guaranteed provision of all segments of the population with high-quality affordable high-tech medical care.

– Implementation of medical care standards.

– Unification of equipment in accordance with standards.

– Regular assessment of the quality of medical care.

Production functions that should provide:

– Timely provision of highly specialized and highly qualified medical care to the population witch cannot be provided in other medical institutions in the region.

– Outpatient and inpatient examination and treatment of patients with CVD and theire rehabilitation.

– Providing full amount of urgent cardiac surgery to residents of the region.

– Performing surgical interventions and treatment of patients with coronary insufficiency and concomitant pathology.

– Providing organizational and advisory assistance to cardiologists in the region to improve the quality of treatment and prophylactic work, generalize best practices and improve the forms and methods of medical care.

– Coordination of treatment-and-prophylactic and organizational-methodical work, which is carried out by cardiologists of the region.

– Monitoring the epidemiological situation of CVD and the activities of the cardiological service in the region, developing together with specialists from the regional health department the necessary measures to reduce the incidence and improve the quality of medical care for patients with CVD.

– Development of strategies for primary and secondary prevention of CVD.

– Implementation of modern organizational technologies in the practice of emergency care for patients with CVD.

Conclusions

Four components for formation of a model of a regional center of cardiology and cardiac surgery have been identified: a set of methods for forming a model, principles of modeling, the formation of the logical structure of the model's activity and modeling technology. They are the basis of conceptual directions for the formation of a model of a regional center of cardiology and cardiac surgery on the principles of public-private partnership, aimed at solving a practical problem - organizing the activities of the market model of a regional center of cardiology and cardiac surgery on the principles of public-private partnership. Conceptual directions are the practical methodology for implementation of a complex modeling process of a regional center for cardiology and cardiac surgery and at the same time a strategy for long-term interaction between the state and business in solving the socially significant task of developing innovative high-tech cardiac care for the population of the region.

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