

INFRASTRUCTURE OF OUT-PATIENT CLINIC PROVIDING CARDIOLOGICAL ASSISTANCE AND THEIR DRUG SUPPLY – COMPONENTS OF SUCCESS

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Abstract

The objective. To identify the key components of success in the development of the infrastructure of outpatient clinics (APC) that provide cardiac care, taking into account their drug supply and conditions of development on the principles of public-private partnership (PPP).

Materials and methods. General scientific methods of analysis, synthesis, generalization, interpretation of scientific data, systemic and structural-functional approaches were used.

Results. Significant problems in the organization and management of APC providing cardiological care were identified. It is necessary to take measures to develop the infrastructure of APC - financing, organization of high-tech production process, the introduction of modern economic mechanisms, rational drug supply. These problems led to the search for mechanisms of the state and business joint functioning, i.e. the development of PPP in health care. The main aspects of SPP functioning were identified, on which the development of the APC infrastructure mainly depends. They are: organizational, legal, financial, investment, technical and organizational aspects. The benefits of cooperation for the state and the private partner are determined. A conceptual model of key factors for achieving success in the development of APC infrastructure based on PPP principles has been developed.

Conclusions. The model of success key components in modernization of APC providing cardiac care offered in the work presented is a perspective direction in the latter development.

Keywords: *key factors, infrastructure of APC, public-private partnership, drug supply, effective pharmacologic agent*

Introduction

Interaction and effective cooperation of domestic business potential and the state is the factor that initiates the development of infrastructure in health care under modern conditions. Public – private partnership (PPP) is the form of such cooperation.

Currently, one of the priority areas for PPP mechanisms development in the world is to conduct economic policy of innovative entrepreneurship forced development in health care [2].

“Infrastructure” means “the basis of construction” (*Lat.*), i. e. a set of basic elements of APC - management system, staffing, financing, organization of the production process, drug supply, etc., which together ensure the activities of the APC.

The main task of APC production infrastructure is to ensure the direct care. APC’s production infrastructure, in addition to servicing the normal functioning of direct care, also serves to reproduce labor resources in the national economy [8].

The current reality is that the efficiency of APC work depends on the modernization of its infrastructure in partnership with private business. The strategic partnership allows the successful use of PPP even in such non-profit or low-income social areas as health care and education [1].

At present, Ukraine has created a legal and institutional framework for the implementation of PPP mechanisms in health care [3, 4, 5].

For the functioning of production infrastructure, first of all, it is necessary to determine the strategy of APC development on PPP principles, taking into account the conditions of their development, because in any sector there are individual components of success.

The aim of our work is to identify the key components of success in the development of the infrastructure of outpatient clinics (APC) that provide cardiac care, taking into account their drug supply and conditions of development on the principles of public-private partnership (PPP).

Methods

The study was conducted according to the program, which was based on general scientific methods of analysis, synthesis, generalization, interpretation of scientific data, as well as systemic and structural-functional approaches.

Results

Based on the analysis of APC providing cardiac care infrastructure, it was found that the main problems of the organization of cardiac care are: underfunding of health care facilities, uneven staffing of doctors and nurses, low salaries of medical staff, insufficient drug supply and equipment of APCs with medical equipment [6, 7].

All this hinders the implementation of the recommendations of the European Society of Cardiology for the treatment of stable angina (2013), develop new drugs that are not yet used in Ukraine, use opportunities to optimize drug treatment of chronic coronary heart disease using modern drugs that are, from the point of view of evidence-based medicine, effective antianginal pharmacologic agent.

For example, *ranolazine*, a second-line drug with an anti-ischemic mechanism of action class IIa and level of evidence B, is included in the European guidelines as a possible option for managing patients with coronary heart disease with persistent angina attacks [10]. The uniqueness of this drug allows to use it in IHD patients in combination with optimal doses of beta-blockers, calcium antagonists or nitrates, or in their intolerance.

The data obtained showed that it is necessary to find measures to ensure sufficient financing of APCs, introduction of modern economic mechanisms in their activities.

These problems led to the search of the mechanisms for joint functioning of the state and business, as it is the interaction of the state and the private sector have been and continue to be the main economic agents market participants in health care in more than 150 countries [1, 9].

The urgency of public - private cooperation in the development of APCs infrastructure was confirmed by the fact that PPP has a number of specific features and characteristics. These include the following:

- Legal registration of the partnership between the state and the private sector participants by a special agreement (contract, agreement).
- Joint financing in definite shares or 100% private sector funding of PPP projects.
- Mostly long-term contractual relations, PPP is focused on solving strategic tasks of state and

communal property development and provision of public services. Strategic partnership allows to use PPP successfully even in such non-profit or low-income social areas as health care and education [3].

- Distribution of risks in projects between the state and business.

- Innovative methods of managing the production and provision of public services. Within the framework of PPP projects, the private sector brings modern organizational experience, knowledge, and new management technologies to the sphere of production and provision of public services.

The main aspects of the functioning of the PPP mechanism developing APC's infrastructure were also identified, namely:

- organizational and legal aspect;
- financial and investment aspect;
- technical and organizational aspect.

Organizational and legal aspect as an institutional shell, allows to form APC's infrastructure on the principles of PPP, ensure its activities for the preparation and conclusion of a contract between public and private partners, create a favorable environment for innovation. Norms and legal provisions on PPP are a "framework", the basis of the mechanism of public-private partnership, on which it is already possible to "cultivate" other elements that contribute to normal, uninterrupted work in the implementation of partnerships. The regulations reflect the procedures for resolving differences, measures to control pricing, customer service, operations and market structure. Currently in Ukraine, the development of PPP is based on a number of laws [3, 4, 5].

The financial and investment aspect of PPP mechanism provides for the right balance of investments, which are made in different proportions, but with mandatory private financing with additional state participation in financing and subject to the affordability of services for consumers. In this case, the public partner assumes part of the costs of reconstruction of the object of the agreement for the use / operation of the object of the agreement.

Sources of funding can be divided into three groups:

- Own funds of partners: equity;

Borrowed funds: bank loans, commercial loans, bond loans; loans from foreign and Ukrainian banks.

Raised funds, which include:

- sponsorship funds - funds of strategic investors, state and regional funds and development banks.

- budget financing (target budget credits (loans), direct subsidies, grants, dotations).

Technical and organizational aspect. It includes technical analysis to determine the cost of the service, marketing and sociological research, financial analysis and modeling to determine the rate of reimbursement (balancing service levels and tariff levels), drafting business plans, and evaluating the effectiveness of PPP project.

Implementation of public-private partnership mechanisms allows to solve two tasks. First, to reduce the deficit of funding sources, investment inflow, and secondly, to improve the quality of services and efficiency of medical establishments management. Thus, PPP is a potential tool for medical infrastructure development, attraction of investments, improvement of quality of medical services provided to the population.

It should be noted that the state benefits from participation in PPP and the following factors prove it.

1. Expectations of high efficiency of such partnership. The decision of the state to use PPP mechanisms in the provision of services is always preceded by analytical work designed to prove that these mechanisms will provide society with greater efficiency by achieving one or all of the following results:

- a) lower costs;
- b) a higher level of services;
- c) risk reduction.

2. New sources of investment. PPP allows the state to access alternative sources of capital, making real the implementation of important and urgent projects that would be impossible under other conditions.

3. Reliability of results. The reliability of obtaining a positive result is ensured by the financial interest of the private partner in the project to minimize costs and fix prices for services before its beginning. This protects the investor and society from the risks of underpricing / overpricing of services costs.

4. Innovation. The unique combination of public and private sector opportunities that emerges in

PPPs and the competitive contracting process determine the high potential of innovative approaches to the creation and management of public infrastructure within PPP limits.

Business also benefits from participating in PPP because of the following factors.

1. A private company receives in the long-term possession and use state assets, thus ensuring a stable profit in the long - term run.

2. By making investments, the entrepreneur receives guarantees of their return, because the state as its partner agrees to ensure a mutually acceptable level of profitability.

3. Having economic freedom, a private company can by increasing productivity, innovation to increase the overall profitability of the business during the term of the contract with the state.

Having proved the relevance of private cooperation with the state in the development of APC which provide cardiac care, we have developed a model of key factors for success in the development of APC infrastructure that work on the principles of PPP (Fig. 1).

The key components of APC activities are:

- Goal setting, strategy - answers the question why a concrete APC is engaged in these services, why it hopes to be competitive, what goals and strategies need to be implemented;

- Organizational and functional model answers the question of who - what does the APC do and who is responsible for what;

- Functional-technological model answers the question of what and how is implemented in APC;

- Model of management organization represents the composition, interaction, distribution of work by units and their management;

- Process-role model answers the question of who-what-how-to whom;

- Resource block answers the question of how many and what resources are needed;

- Customer orientated model answers the question of what kind of relationship of the model with customers and business partners and objects of the external environment exist.

- Human resources is responsible for creating conditions, possibly motivation for quality work of staff;

- Financial block defines investments, cost structure, profit flows:

- Marketing is responsible for meeting the needs of buyers of medical services and making APC's profit.

Conclusions

Public-private partnership is the engine for success in the development of cardiac care APCs. There is a necessary legal framework for the implementation of PPP projects in health care.

The conceptual model of key factors of development of APC infrastructure working on PPP principles is a perspective direction in the latter development.

Prospects for further research: to use the results obtained to substantiate conceptual approaches to improving the organization of medical care for CVS diseases patients at the regional level.

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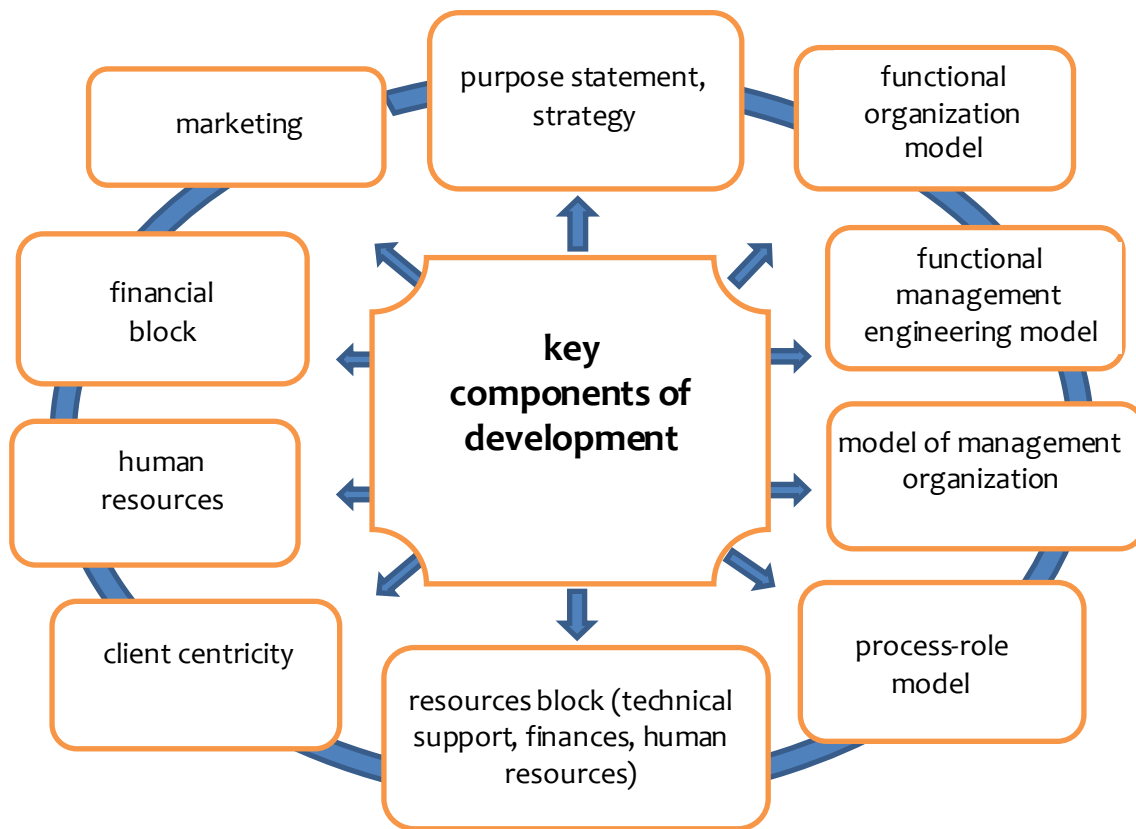


Figure 1. Conceptual model of key factors of APC infrastructure development based on PPP principles