

PUBLIC HEALTH SERVICES SPHERE AS A COMPLEX SOCIAL AND ECONOMIC SYSTEM

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This article considers public health services sphere as a complex social and economic system including social and service infrastructure subsystems. The macro logistical system of public health services is proposed to be classified according to the type of ownership, the way of services' reproduction, management level and the type of infrastructure.

The macro logistical system in a broad sense is a social and economic system whose subjects are united by the general interests of optimization of economic streams for the purpose of minimization of costs and expenses.

At present management construction by economic systems on the basis of the logistical approach is gaining popularity as any system both social and economic has a certain degree of entropy in the field of management, technological process, service, information and finance with all these suffering a considerable decrease in the process of formation of the integrated control system.

The variety of spheres of functioning of economic systems is for the present moment one of the reasons for the necessity of their division into components defined as industrial system and providing their uninterrupted functioning infrastructural systems which often are independent.

The public health services sphere as a system of social and service infrastructures represents the social and economic system whose subjects have an overall aim of optimization of economic streams with the minimum costs and expenses.

The definition of subjects of the economic system of public health services is connected, first of

all, with an establishment of its configuration, i.e. the subjects forming both incoming and outgoing material and service streams. Financial and information streams can go beyond the system configuration for better maintenance of communication with their external environment.

The establishment of subjects of management and the management of economic system differs a little from standard to broad signs and constructive properties. The subjects of management are: all organizations (institutions) and also consumers of services which form processes and have operating influence, pursuing their interests (purposes).

Considering the above-stated, the basic elements (subjects) of macrologistical system of the public health services that forms commodity-material and service streams can be presented in the following model (fig. 1 see).

Including public health services of the subjects forming financial streams into the model of macrologistical system allows to expand its configuration at the expense of funds of obligatory medical insurance, of the insurance medical organizations in the systems of obligatory medical insurance and voluntary medical insur-

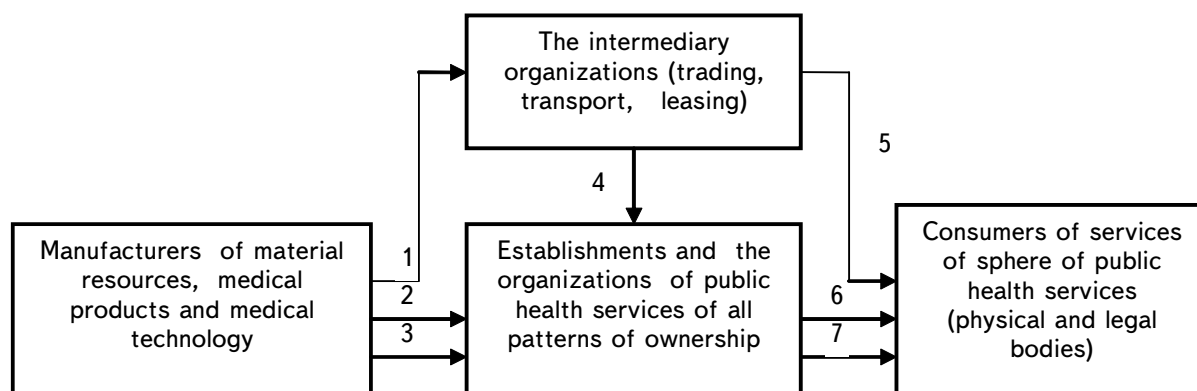


Fig. 1. Macrologistical system of commodity-material and service streams of public health services

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ance, and also control public health services (see fig. 2). In the picture the financial streams are specified in figures 8, 9, 10, 11.

In the theory of systems and in logistics such concepts as a subsystem and system structure are considered. It is considered, that the possibility of dividing the system into subsystems is connected with exarticulation of the sets of interconnected elements, capable to carry out rather independent functions and tasks directed on the achievement of

1. According to the type of ownership it is possible to find the subsystems of public health services with state, municipal, private and private-state ownership. The latter pattern of ownership is used basically in the systems of public health services of foreign countries. For example, private-state partnership introduced in the Canadian province Quebec means that if a state hospital can render the necessary service only in half a year to receive a more timely help the patient can address

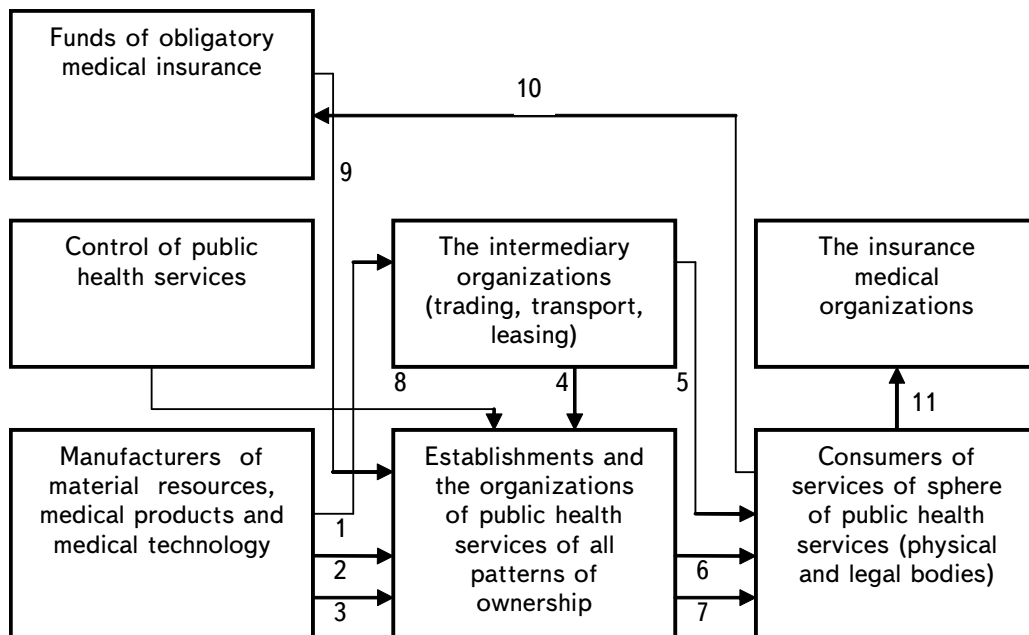


Fig. 2. Macrologistical system of commodity-material, service and financial streams of public health services

the overall aim of the system. The name “subsystem” means that such part should possess the properties of a system (in particular, property of integrity). It differs the subsystem from a simple group of elements for which the tasks are not formulated and the properties of integrity (for such group is used the name “components”) are not specified.

The structure reflects the most essential mutual relations between the elements and their groups (components, subsystems) which vary according to the changes in the system and provide the existence of the system and its basic properties. The structure can be presented graphically, in the form of theoretic-plural descriptions, matrices, counts and other languages of modeling of structures.

In the macrologistical system of the sphere of public health services it is possible to find, using different classification signs up to 15 subsystems differing in the degree of integrity.

The basic subsystems of the macrologistical system of public health services and signs of their identification are the following:

the private medical institution whose services will be paid by the regional government.

In the Chinese Shanghai 600 hospitals have been constructed, of them 200 hospitals either have a share of foreign capital or have foreign shareholders. In Astana (Kazakhstan) the program of modern medical aid clusters construction has been launched which includes building of approximately 10 medical institutions of all basic profiles. For cluster management foreigners will be involved in two possible ways: either through capital investments, or through the operating companies.

2. According to the way of reproduction of services in the sphere of public health services there are market and nonmarket subsystems. In the first case the commodity exchange, in the second - the direct exchange takes place. In the governmental order of the Russian Federation from May, 15th, 2007 N 286 About the Program of the state guarantees of rendering for 2008 it is said that to the citizens of the Russian Federation can get the following kinds of free medical aid within the limits of the present Program:

- ◆ the primary medico-sanitary aid;
- ◆ urgent medical aid;
- ◆ the first aid, including specialized (sanitary-aviation);

- ◆ specialized medical aid, including hi-tech.

3. On level of management of public health services system there are federal, regional and local subsystems. In the essentials of the Legislation System of Russian Federation on Health Protection of the Citizens of July, 22nd, 1993 №5487-1 (with the latest changes of July, 24th, 2007) the powers of federal public authorities, the public authorities of the subjects of Russian Federation and the competence of the local governments are established. In particular, the powers of federal public authorities concern:

- ◆ acceptance and change of federal laws in the field of health protection of citizens and the control over their execution;

- ◆ regulation and protection of the rights and freedom of the person and the citizen in the field of health protection;

- ◆ establishment of the basis of the state policy in the field of health protection of citizens, working out and realization of federal programs on public health services development, preventive maintenance of diseases, medical aid rendering, medical education of the population and other questions in the field of health protection of the citizens;

- ◆ management of the federal state property used in the field of health protection of the citizens;

- ◆ wildlife management, protection of the environment, maintenance of ecological safety;

- ◆ organization and maintenance of the state sanitary-and-epidemiologic supervision, working out and introducing standard legal certificates in the specified sphere;

- ◆ organization the of system of sanitary protection on territory of Russian Federation;

- ◆ establishment of standards of medical aid and control over their execution; working out and introducing the program of the state guarantees of rendering free medical aid to the citizens of Russian Federation including the base program of obligatory medical insurance; establishment of the tariff of insurance payments on obligatory medical insurance for the citizens of Russian Federation;

- ◆ coordination of the activities of the public authorities, managing subjects, the subjects of the state, municipal and private systems of public health services in the field of health pro-

tection of the citizens; the protection of family, motherhood, paternity and childhood.

4. According to the form of infrastructure of the system of public health services. Functioning of the majority of infrastructural systems represents a complex process which assumes the realization of practically all the basic aspects of the activity (industrial, financial, purchase, distribution, transport, service, information, etc.).

The identification of infrastructural system assumes: infrastructure delimitation as object of the analysis in the form of an adaptive macro system with internal and external relations; establishment of the degree and the character of influence on the functioning of the infrastructure system of a set of internal and external factors; classification of subsystems and institutes constituting it; the definition of the infrastructure structure.

In infrastructural systems it is possible to define the systems of industrial infrastructure (storage, sale, truck transport, communication of industrial sphere etc.), the systems of social infrastructure (trade and public catering, housing and communal services and consumer services, passenger transport, public health services and social security, physical training, art, culture etc.), the systems of business infrastructure (management, public and political organizations, banks and the insurance organizations, investment and share funds, a science and scientific service etc.).

Thus, the public health services system, being a logistical system of the social infrastructure as a whole, can be presented not only by social, but also by industrial and business subsystems.

¹ The decree of the Government of Russian Federation from May the 15th, 2007 N 286. About the program of national guarantees on providing the free of charge medical aid to the citizens of Russian Federation for the year 2008. http://www.mzsrrf.ru/prav_postan/418.html

² The decree of the Government of Russian Federation from May the 19th, 2007 N 296. "About approving the list of the subjects of Russian Federation that participate in the implementation of a pilot project targeted at increasing the quality of service in health care sphere". http://www.mzsrrf.ru/prav_postan/418.html.

³ Sosunova L.A., Chernova D.V. The main tendencies of developing services in Russian economy // Logistics, business-statistics, service: the problems of scientific research and specialists training: materials of the International scientific-practical conferences, May 22-24, 2006, Samara: published in Samara State University of Economics, 2006. P. 141-145.