

ECONOMICS AND SOCIOLOGY OF SOCIAL HEALTH AND HEALTHCARE

DOI: 10.15838/esc.2016.2.44.7

UDC 336.43, LBC 65.2/4

© Molchanova M.Yu.

Public-Private Partnership in the System of Regional Healthcare Financing



Margarita Yur'evna

MOLCHANOVA

Ph.D. in Economics, Associate Professor

Perm State University

15, Bukirev Street, Perm, 614990, Russian Federation

molchanova@econ.psu.ru

Abstract. Healthcare financing reform in the Russian Federation, besides its positive consequences, has led to the emergence of several major organizational and economic problems that hinder the expansion of financing sources for this sphere, which also involves public-private partnership (PPP). The paper highlights the regional specifics of such healthcare projects compared to similar projects of other spheres of the national economy. The author describes the problems of PPP projects implementation in healthcare; they include the insufficiency of substantiation of public-private partnership application in healthcare, and the absence of typical models for establishment of relations between PPP participants. The paper presents the healthcare priorities put forward by the author; these priorities are based on the theory of the life cycle of a service. The author presents her own model for organizing a regional concession, which is the most common form of public-private partnership in healthcare so far. The cluster brings together on a voluntary basis the legally independent organizations that are interested in improving the quality and increasing the accessibility of health services. These can include medical institutions of various forms of ownership located in the region, clinics, facilities, institutions that train healthcare workers, authorities, etc. The author shows that a favorable environment for the formation and implementation of PPP projects can be created under the cluster approach to the organization of healthcare. When establishing the medical cluster, the main task is to organize interaction between all its subjects in the interest of the overall development of healthcare in the region and the implementation of one's own interests.

Key words: healthcare, funding sources, public-private partnership, concession, cluster approach.

1. Statement of the problem

Public-private partnership (hereinafter – PPP) is becoming more common in various spheres of national economy. This is road infrastructure and services; airports and their maintenance; subways and other modes of transport; public services and amenities; healthcare; culture; education; leisure and tourism; social services; production, transmission and distribution of electric and thermal energy; heat, gas and electricity; recycling and disposal of household waste, etc.

The PPP development in Russia faces various constraints, for example, a lack of methodological basis to study directions, which make it possible to develop PPP. There are also specific problems regarding the formation and implementation of PPP projects in individual sectors.

The scientific literature about PPP theoretical and methodological principles is numerous and diverse (see [2, 5, 12] and many others). PPP in healthcare are also raised in the articles [9, 20]. These publications reflect most common topics – significance, directions and effects of PPP projects in healthcare and do not consider their specifics and methodological basis and do not help form a system of practical recommendations on the organization of PPP projects in healthcare and their implementation.

In this regard, the purpose of this article is to identify problems and features of the healthcare financing system in Russian regions and determine a role of PPP projects in it. For PPP to become one of the sources of

healthcare financing it is crucial to overcome institutional barriers to its implementation. They are the following: a lack of justification of specific areas of PPP application in healthcare, a lack of standard models to form relations among all PPP participants. This article answers these questions.

The development and maintenance of the national healthcare system at a certain quality level are only possible in case of presence of the efficient model to manage the system and financial sources. In case of limited budgetary resources public-private partnership can be one of the options to attract additional funding.

Each country has a specific system to finance healthcare. This is associated with the national mentality and specific conditions for formation and evolution of the society. Historically there appeared 3 major national systems of healthcare funding [13; 21, p. 270]: budget, insurance and private pay.

No country has budget, insurance or private financing system in pure form.

In the Russian Federation the law sets forth the following *funding sources in the healthcare system in terms of providing population with medical care* on a free and paid basis [23]:

- funds of budgets of all levels;
- means of federal and territorial funds of obligatory medical insurance;
- facilities of trust funds intended for health protection of population;
- means of state extra-budgetary funds (the Social Insurance Fund of the Russian Federation, the Pension Fund of the Russian Federation);

- means of voluntary medical insurance;
- revenues from business activity of healthcare organizations, in particular from the provision of paid medical services;
 - voluntary contributions and donations of citizens and legal persons;
 - other sources not contradicting the RF legislation.

In accordance with the statistical data [10], the first two prevail among the above sources – funds of budgets of all levels and means of federal and territorial funds of obligatory medical insurance. So, in 2014 they together accounted for 2532 billion 700 million rubles, or 16.7% of all expenditures of the RF consolidated budget (including state extra-budgetary funds) on social and cultural activities. The volume of paid services rendered to population in 2014 amounted to 474 billion 432 million rubles or 6.4% of the total volume of paid services provided

to population. So, the budget and insurance systems to finance healthcare are popular in the Russian Federation. At the same time, there is an almost exponential growth in paid medical services to population (*fig. 1*). The accelerated growth, in our view, reflects not only the development of the paid medical services system and growth in its revenues, but also the low quality and availability of medical services rendered by budget institutions of health care.

In addition, the structure of investment in fixed capital in healthcare is an important indicator (*tab. 1*). Most investment accounts for budgetary funds (73.2%). However, the volume of attracted extra-budgetary funds is 14.9%.

The healthcare financing reform initiated in 2006 identified a number of key organizational and economic problems inherent in the current state of Russian healthcare.

Figure 1. Dynamics of paid medical services rendered to population in the Russian Federation (constructed according to [10]), billion rubles

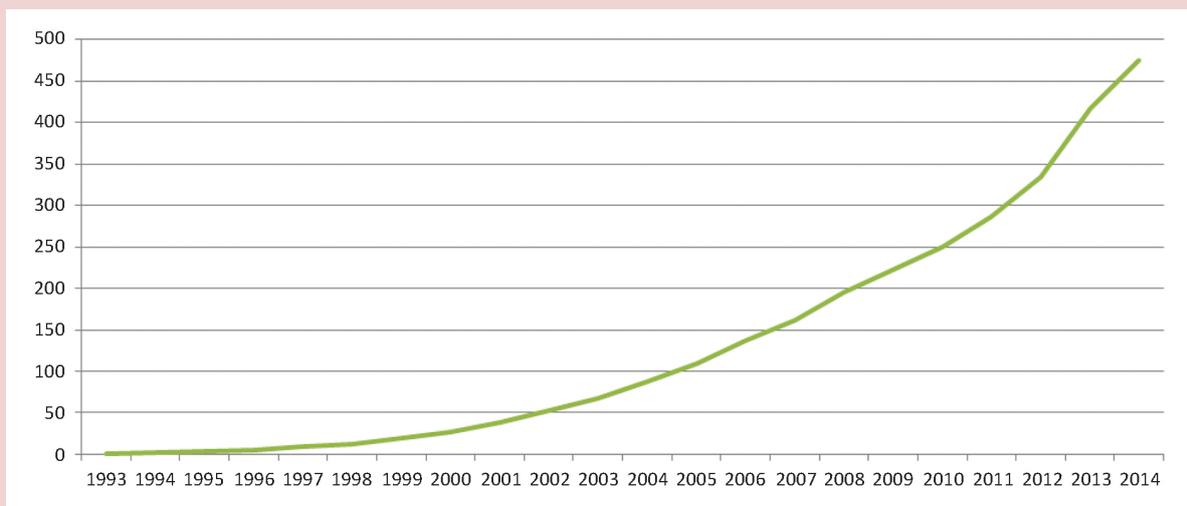


Table 1. Structure of investment in fixed capital by healthcare financing sources (excluding small businesses and volume of investment not observed by direct statistical methods) [10], % to the total

Indicator	2005	2010	2011	2012	2013	2014
Investment in fixed capital, total	100	100	100	100	100	100
Including:						
own funds	15.7	7.8	6.8	7.4	7.6	11.9
funds raised	84.3	92.2	93.2	92.6	92.4	88.1
of them budgetary funds	68.7	80.1	82.9	81.9	79.3	73.2
including:						
at the expense of the federal budget	16.4	32.5	29.1	39.3	32.6	31.1
budgets of RF subjects	45.4	40.0	44.5	38.3	40.4	38.1
local budgets	6.9	7.6	9.3	4.2	6.3	4.0

This is a discrepancy between state guarantees of free medical care and their financial provision; a poor coordination among the entities involved in the funding of healthcare organizations; maintenance of cost-effective type of sector management, etc. [22]

Reforming the system of healthcare financing, including separation of functions and responsibilities of medical services buyers and producers, introducing contractual relations and boosting competition in the sphere, etc., had an ultimate goal to improve the performance of the healthcare sector. However, it resulted in the division of the public healthcare financing system into 2 subsystems: budget and insurance with common recipients of funds and, thus, subordinate to different and poorly coordinated rules. The compulsory health insurance model was developed to replace the budget financing system and its practical implementation occurred as a supplement and only as a partial replacement of the existing system.

Relying on the realistic approach to the adoption of a medical insurance law and the

development of a CHI system, such a system should have been initially designed as additional to the budget financing system and, hence, the necessary regulatory framework – worked out.

It is no coincidence that in 2014 the RF Accounts Chamber revealed a negative trend in the healthcare system optimization (*fig. 2–4*) [4]:

- 33.8 thousand beds are eliminated;
- shortage of doctors accounts to 55.2 thousand people;
- in-hospital mortality increased in 61 regions;
- number of deaths at home rose in 14 regions;
- number of unsuccessful emergency calls grew from 2.1 million in 2013 to 2.25 million in 2014;
- more than 17.5 thousand settlements have no medical aid.
- expenses for the purchase of medical equipment decreased from 37.7 billion rubles in 2013 to 18.62 billion rubles in 2014;
- due to restructuring the payroll increased only by 0.5%.

Figure 2. Dynamics of the number of outpatient and hospital facilities in the Russian Federation (constructed according to [10])

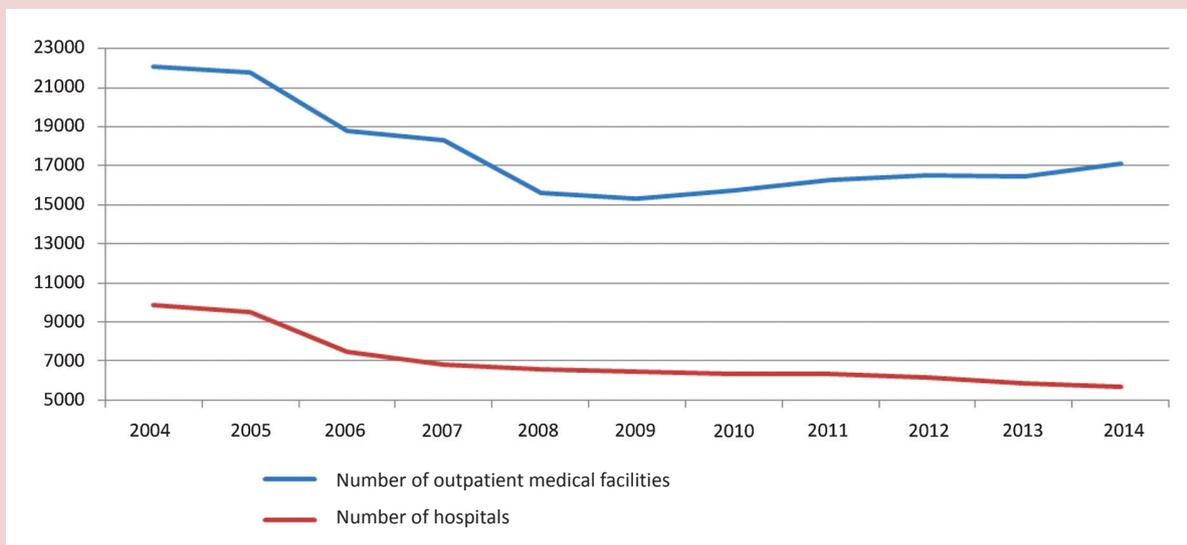


Figure 3. Dynamics of the number of beds in hospitals in the Russian Federation (constructed according to [10]), thousand

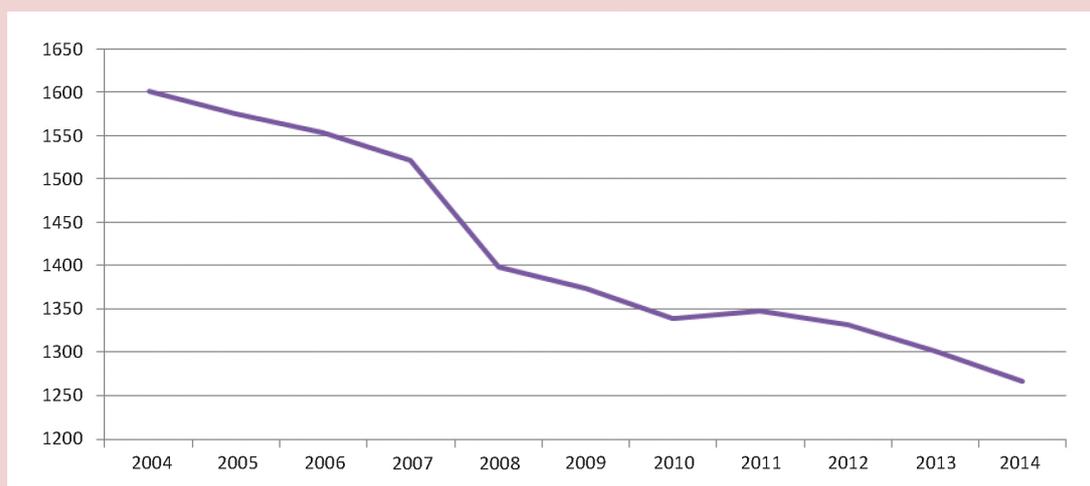
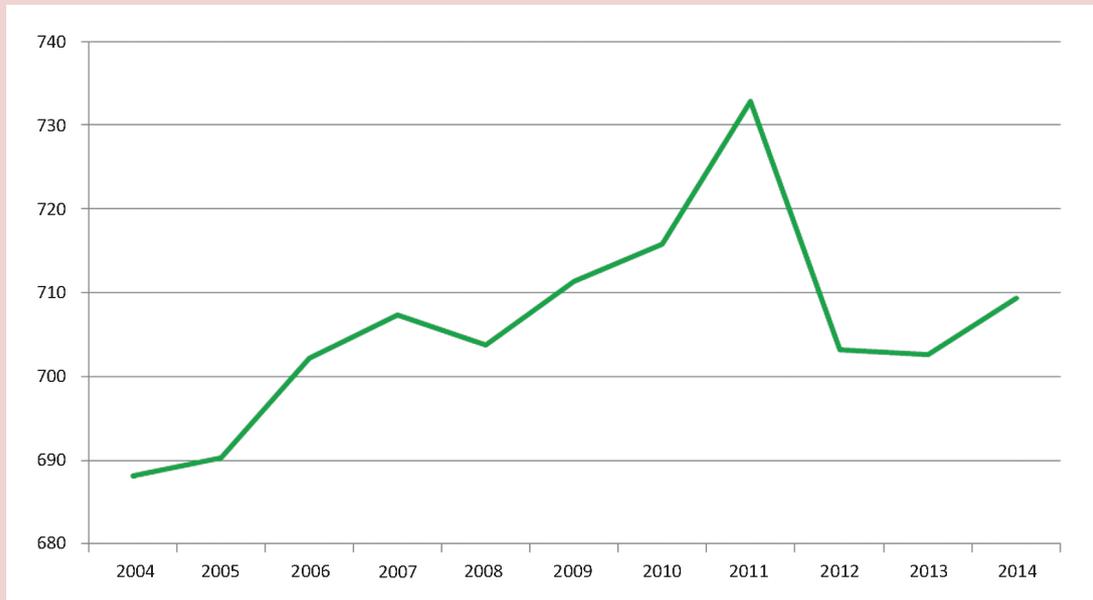


Figure 4. Dynamics of the number of doctors in the Russian Federation (constructed according to [10]), thousand people



It was assumed that during the transition of healthcare to a market economy, the competition among medical organizations, insurers and other subjects of the medical services market would contribute to improving the quality of care and efficient use of resources. However, the expectations were not met, as the compromise budget and insurance healthcare model established in the period of collapsed economic, political and ethical foundations of the Soviet society and preserved the viability of the system could not become a basis for further development for objective reasons [1]:

1. Unlike a number of Western European countries, where the choice of the insurance system was based on a specific theoretical model, in our country it was a result of

lobbying the insurance business without a serious scientific basis.

2. Insurance premiums (either inherent in the structure of unified social tax or charged separately in different periods of inter-budgetary relations) are taxes accumulating in the state extra-budgetary fund, which assets are spent on financing activities of medical organizations. The expenditure of these funds on the reimbursement of expenses for individual articles, fundamentally not different from budget funding, does not meet basic insurance principles.

3. Due to the scarcity of territorial programs for state guarantees in most RF subjects the tariffs for medical services are approved below cost, thus violating normal financial and economic activity of medical organizations.

The stated above shows the need to expand a range of mechanisms to finance the healthcare system. The section “Improvement of the Efficiency of Organization and Management of the Healthcare System in the Russian Federation” of the “Concept for Development of Healthcare in the Russian Federation until 2020” defines the following tasks in the field of **financial policy of Russian healthcare**:

- determine and legislate stable sources to finance the public healthcare system;
- concentrate funds for medical assistance payment under the program of state guarantees mainly in one channel (CHI) and establish a uniform tariff policy;
- increase the efficiency of public expenditure through the introduction of market mechanisms to manage and expand public-private partnership at the level of capital investment in the healthcare system and the provision of medical services under the program of state guarantees (i.e., at the level of providers);
- eliminate illegitimate payments in hospitals.

The solution of these problems will help raise the efficiency of used financial resources in healthcare and the integrated medico-economic and medico-social performance of the sector.

2. Features of PPP projects in healthcare

In most developed countries the interaction between the state and private business is based on public-private partnership [7]. So, in the countries of “Big seven”, only 184 of 615 PPP projects in the healthcare sector are being realized, in the UK – 123 of 353. At the same time, the World Bank Report on the results of

the reforms in the healthcare sector in Europe [19] makes the following conclusions:

- application of public-private partnership mechanisms in healthcare increases the efficiency of resource use and management;
- private co-financing of medical services, publicly funded, contributes to the creation of financial incentives for raising quality efficiency;
- involvement of the private sector in the social sphere requires tax incentives and statutory safeguards for investors.

Some Russian regions have successful PPP projects, such as the project to provide the emergency medical service with transport services in Perm Krai, the Sverdlovsk Oblast, the Republic of Bashkortostan, and the Kirov Oblast. Private companies render transport services, including delivery of vehicles and their maintenance. For example, Perm Krai has saved about 120 million rubles for the first 5 years of this experiment.

In many RF subjects the dialysis centers are based on PPP principles; there patients with chronic kidney disease can undergo a life-saving procedure of blood purification. In the Rostov Oblast the private medical organization built 5 dialysis centers; their services are paid for through compulsory health insurance, i.e., anyone with insurance can get free treatment. This work results in closed waiting lists for this type of assistance.

The PPP forms can be very different:

- government contracts;
- lease relations;
- financial lease (leasing);
- state-owned enterprises (joint ventures);
- agreement on production sharing (APS);

- concession agreement;
- any mutually beneficial forms of state-business cooperation (for example, use of temporarily available capacities of budgetary institutions, training for healthcare, etc.).

Concession is the most common and legally elaborated form of PPP in healthcare (*tab. 2*). A concession agreement gives an opportunity to extend the life of the project to 49 years, which sets the duration and contributes to the stability of relations between investors and authorities. In addition, it follows from the table data that the PPP projects in healthcare are mainly regional and municipal. On the one hand, this largely facilitates the possibility of concluding agreements on public-private partnership between the investor and the authorities in comparison with federal projects that require coordination of the project with the heads of federal ministries and departments and substantiation of national significance of the project. On the other hand, PPP projects in healthcare often require less funding. For example, the most expensive projects are PPP projects on establishing a dialysis center in the Pskov Oblast (1.2 billion rubles) and the Oblast Medical Rehabilitation Center in the Leningrad Oblast (2.0 billion rubles).

Law 115–FZ “On concession agreements” [17] contains an article devoted to public healthcare facilities. Under such collaboration, the company selected by competition invests funds in the reconstruction and equipment of the facility, becomes its manager for the term stipulated in the agreement and provides medical aid under the compulsory medical insurance system, at the same time receiving

profit off commercial services. But the concession bears certain risk – in the case of a classic concession, the state can lose control of the medical facility. Indeed, according to the Center for PPP Development, since the adoption of the law in 2005, eighteen concession agreements were concluded in Russia [18]. In particular, a hospital in Novosibirsk, the Family Planning Center in Kazan, Clinical Hospital No. 63 in Moscow (which is not functioning due to repair works) – these facilities are now operated as a concession. Twenty-three PPP projects in healthcare are now being implemented in the regions together with concession projects.

The adoption of Federal Law 224-FZ of July 13 “On state-private partnership, municipal-private partnership in the Russian Federation and introducing amendments to certain legislative acts of the Russian Federation” [16] gave a new impetus to the process of attracting private investment into the sector. The public partner can be the highest executive body (Russian Federation, Russian Federation subject or municipality) or an authorized body that, as a rule, initiates proposals on PPP and provides the development of all the provisions under the project and concludes an agreement with the private partner. The latter may engage third parties to perform the services (by agreement with the public partner and under the agreements), attract own or borrowed funds to implement direct PPP agreements taking into account the results of the tender procedures, which can involve two or more public partner under the civil contract (agreement) for a period of not less than three years.

Table 2. Characteristics of PPP projects in healthcare in the Russian Federation regions *

No.	PPP project	Region	Project level	PPP form	Implementation stage	Implementation period	Project cost, thousand rubles
1.	Reproductive technology clinic	Vladimir Oblast	Regional	Agreement on public-private partnership	Initiation	5 years	Not settled
2.	Construction of a integrated research center of modern high medical technologies for 150 visits per shift	Republic of Dagestan	Regional	Agreement on public-private partnership	Initiation	3 years	Not settled
3.	Hemodialysis	Pskov Oblast	Regional	Lease contract with investment obligations	Operation	8 years	1,200,000
4.	Modernization and operation of a healthcare facility (sterilization department)	Samara Oblast	Regional	Concession agreement	Pre-investment	9 years	35,000
5.	Oncologic radiology center	Moscow Oblast	Regional	Concession agreement	Investment	-	-
6.	Doctor nearby	Moscow	Regional	Lease contract with investment obligations	Investment	8 years	193,000
7.	Creation of a regional center of medical rehabilitation	Leningrad Oblast	Regional	Concession agreement	Pre-investment	25 years	2,000,000
8.	Development of industrial infrastructure in the sphere of traumatology, orthopedics, neurosurgery and other fields of medicine	Novosibirsk Oblast	Federal	Concession agreement	Pre-investment	15 years	857,000
9.	Reconstruction of a building for the needs of the perinatal center	Republic of Tatarstan	Municipal	Concession agreement	Operation	-	Not settled
10.	Reconstruction and operation of a healthcare facility	Samara Oblast	Regional	Concession agreement	Pre-investment	49 years	352,245
11.	Reconstruction of premises in the dental clinics building	Novosibirsk Oblast	Municipal	Concession agreement	Operation	20 years	7,000
12.	Creation and modernization of real estate objects, intended for the operation of a clinical nutrition organization and the provision of catering services to employees of the state budgetary institution "Samara regional clinical hospital named after M.I. Kalinin"	Samara Oblast	Regional	Concession agreement	Pre-investment	15 years	50,000
13.	Creation of a modern maternity hospital	Novosibirsk Oblast	Municipal	Concession agreement	Operation	25 years	90,000

* Compiled by the author on the basis of data from the Unified information system of state-private partnership in the Russian Federation [8].

An important positive aspect of the new law consists in the fact that all the procedures of selecting a private partner must be conducted in accordance with tender procedures, subject to the requirements of transparency and publicity of pre-tender joint negotiations (meetings) and preparation of minutes of meetings that record the harmonization of substantial proposals of the parties and evaluate their effectiveness.

At the same time, it was expected that under the new Federal Law "About Public-Private Partnership, Municipal-Private Partnership in the Russian Federation" there will be an opportunity for the development of various forms of partnership besides concession [16]. But, unfortunately, the law aims more to regulate the procedures for the conclusion and implementation of a partnership agreement and it does not directly determine the types and forms of partnerships. It is assumed that only the by-law will contain a classifier of PPP forms.

In general, we believe that the fundamental principles of public-private and municipal-private partnership in the health sector, and priority areas for these types of projects should be determined at the federal level. At the regional level, it is possible to adopt regional methodological recommendations on PPP in healthcare that allow the healthcare facility to take concrete steps and implement competent and practical measures for the realization of PPP projects.

Thus, PPP projects in healthcare have the following specific feature that distinguishes them from the projects on the construction of roads and other types of infrastructure: their

initiators, along with private investors, are mostly regional and municipal authorities rather than federal authorities. Therefore, unlike other sectors, when shaping a common policy in the sphere of PPP in healthcare, federal authorities base their decisions primarily on the positive experience and proposals developed in the regions already mentioned and also in the Bryansk, Chelyabinsk oblasts, Chuvash Republic and others.

In the framework of PPP, the government must determine the volume and quality of medical services, while reserving the right of ownership of the facility. The private partner, for its part, will receive income in the form of fees for the provision of services under certain risks of project management. It will be possible to implement such a scheme at which the investor will be able to rent and manage ready-made objects provided that he assumes an obligation to equip and use them. Other promising areas include the establishment of mobile health centers for remote settlements, health examinations under the contracts with state clinics, mass screening for cancer, etc.

In addition, the state wants the business to participate mainly in primary healthcare and certain types of high-tech medical aid.

Primary healthcare does not cost much, and it is expected that in the near future up to 15% of the institutions providing medical care under the obligatory medical insurance program will be private. Regions experience a shortage of certain types of high-tech medical aid such as the centers for hemodialysis, radiation therapy, and centralized laboratories for costly research; so, PPP can be focused on the development of these areas.

The state will determine priorities for PPP development, based on the needs of population in medical care and the state's ability to provide it. I.e. the state makes an order for the quantity, quality and frequency of provision of services, sets the tariffs, and concludes a long-term contract; as for private business, it does everything in order to fulfill these requirements. Currently, according to estimates of the Ministry of Healthcare, the need for private investment can range from 300 billion to one trillion rubles. In this case, there is no clear understanding of the directions and number of contracts that the state may conclude with private organizations.

In addition, in the framework of the public-private partnership project, there exist the following significant risks for the potential investor:

- long process of project implementation, low level of trust in private business in the field of healthcare;
- unexpected increase in investments that do not correlate with the term of the agreement;
- absence or incomplete provision of the services planned.

3. Methodological basis of PPP in health care

The above issues demonstrate the importance of methodological substantiation of possible directions and mechanisms of PPP in the health sector. When studying the issues of funding in health services, it is important to consider the latter not only from the standpoint of the result but the entire process of their creation and implementation. In this case, **the concept of the life cycle of the service**

is most suitable. In the literature, the lifecycle of services is considered mainly from the marketing point. So, according to P. Kotler, the life cycle of the service is the period since the release of the service into the market until its withdrawal from the market [24]. At the same time, the national standard GOST R 52113-2003 "Services provided to the public. Nomenclature of quality indicators" provides for the following stages of the life cycle **for comprehensive material services** – according to GOST R ISO 9001 [6]:

- marketing, search for markets, analyzing the state of the markets;
- development of technical requirements, product designing;
- logistics of production;
- technological preparation of production, development of technological processes;
- manufacturing processes;
- implementation of control, acceptance and other tests;
- packaging, labelling and storage of final products;
- distribution, transportation and sales of products;
- installation and operation;
- technical assistance services;
- disposal after the expiry of the maintenance and usage period.

For all other types of services it is proposed to use the following life cycle stages:

- provision of information on the services provided by the consumer;
- acceptance of the order;
- quality control of order execution;
- issuance of the order to the consumer.

As applied to medical services, the life cycle stages are presented in *Table 3*.

Table 3. Specification of the life cycle stages of medical services in accordance with GOST R ISO 9001 and GOST R 52113-2003 [3, 6]

GOST R ISO 9001	GOST R 52113-2003	Medical services
Marketing, search for markets, analyzing the state of the markets	-	Analysis of the services market
Development of technical requirements, product designing	-	Development of sanitary-hygienic and technical requirements
Logistics of production	-	Provision of the service with material and technological support
Technological preparation of production, development of technological processes	-	Engineering of the technological process of the service (treatment algorithm)
-	Provision of information on the services	Provision of information on the services
-	Acceptance of the order	Receiving the patient upon the appointment with the doctor
Manufacturing processes	-	Treatment process, the process of carrying out therapeutic or wellness treatments
implementation of control, acceptance and other tests	Quality control of order execution	Control examination
Packageng, labelling and storage of final products	-	-
Distribution, transportation and sales of products	Issuance of the order to the consumer	Dismissal of the patient
Installation and operation	-	-
Technical assistance services	-	-
Disposal after the expiry of the maintenance and usage period	-	-

In our opinion, to assess the possibility of using PPP in healthcare it is important to highlight the stages of the life cycle of creating and implementing a high-tech medical service from the standpoint of different objects of financing. In this case, it is possible to allocate the following stages:

- funding the creation of material and technical infrastructure for the provision of the medical services (creation of fixed assets in the form of building, reconstruction of existing facilities);

- funding the purchase and installation of equipment for the provision of the medical service and information support of its work and of the process of providing the medical service;

- financing the work of the infrastructure (hotels, meals, etc.) necessary for the effective provision of the medical service.

In this case, PPP options in healthcare, in our opinion, are extensive enough, even on the basis of one form – a concession agreement (*tab. 4*).

Table 4. Options for PPP in the health sector (the feasibility of application is highlighted in blue)*

Types of private business activities	Areas of cooperation between the state and private business		
	construction	equipment/IT	infrastructure management
Outsourcing of certain functions			
Equipment, real estate management			
Construction, equipment			
Designing, construction, equipping, management			
Designing, construction, equipping, management			

* Compiled by the author.

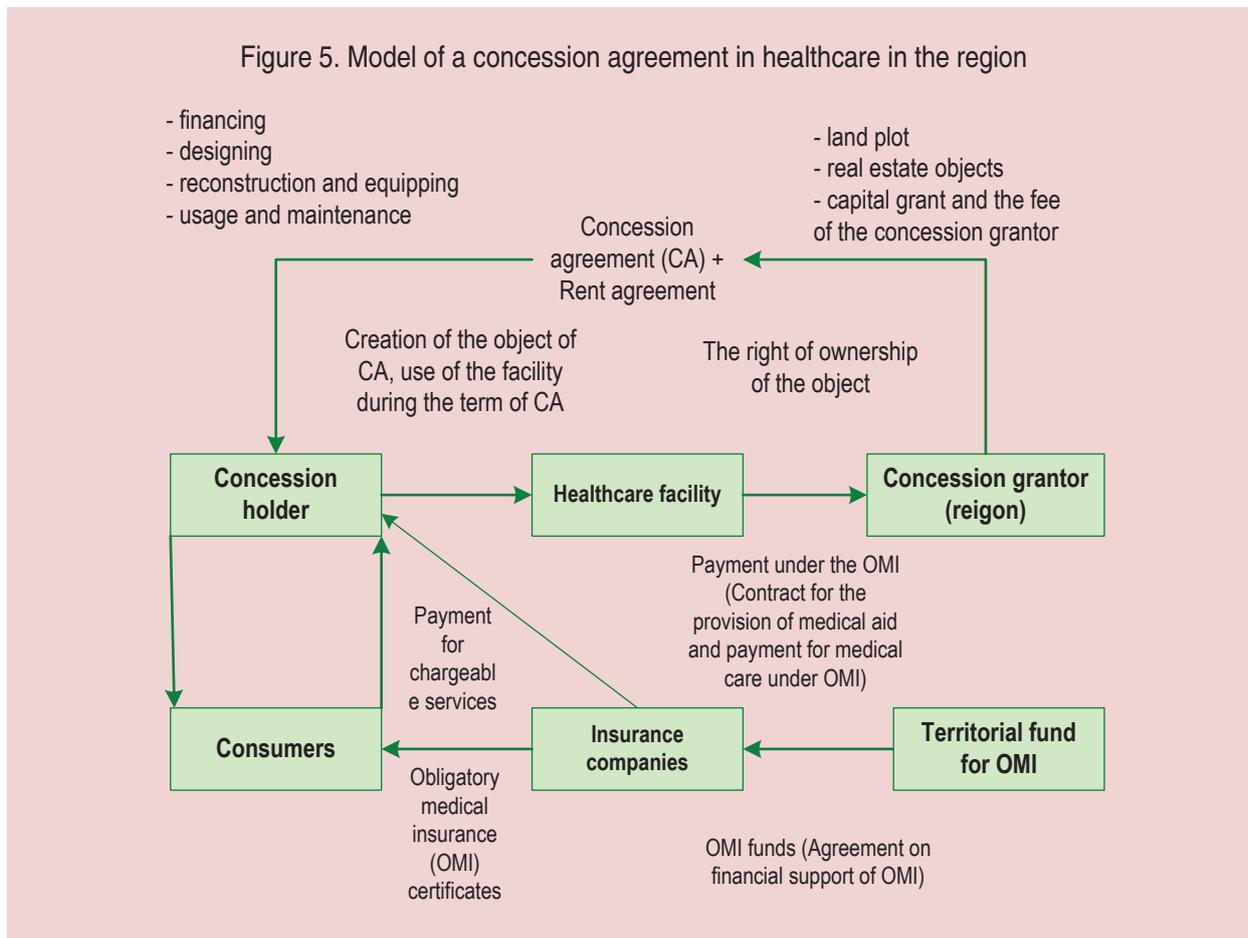
4. The concession agreement model

As it was mentioned above, in our opinion, the role of regional authorities is to develop and adopt regional methodological recommendations on PPP in healthcare, allowing the healthcare facility to take concrete steps and implement competent and practical measures for the implementation of PPP projects. Possible models of PPP projects can be the elements of methodological recommendations. Based on our own experience, we propose a possible model of concession agreement in healthcare (*fig. 5*). This model largely eliminates the risks to existing concession agreements. In particular, the right of ownership of the healthcare facility where the PPP project is implemented remains with the region. The concessionaire has the right to provide the population with paid medical services in addition to free services based on the agreement for the provision and payment of medical aid under the obligatory medical insurance concluded with the Territorial Fund of Obligatory Medical Insurance. Thus, under this model, budget and private investment in health

facilities in the region and the possibility of providing medical services to all segments of the population are stimulated at the same time.

Due to the fact that many parties with different interests participate in this model, it is very important that the contractual relations between all participants of the PPP should be based on a unified ideology and strategy of healthcare development in the territory. We have shown in several papers [14, 15] that in a market environment the coordinated development of independent organizations of different ownership forms is possible on the basis of cluster development. Therefore, an effective application of PPP is possible in the cluster approach to the organization of healthcare, where the role of all stakeholders (public, private, business and government) is very important in organizing effective work of healthcare in a particular area.

Currently, this approach is actively implemented in the practice of healthcare in developed countries (USA, UK, Finland, Denmark [25, 26]), and it increases the efficiency of the industry as a whole. In the



Russian healthcare, the cluster approach is not applied due to lack of knowledge and awareness by representatives of medical organizations and public authorities.

The author’s model of healthcare management based on the cluster approach involves:

1. Territorial proximity of all the participants in the provision of medical services: patients, medical facilities (from clinics to hospitals), infrastructure companies, suppliers, insurance and financial companies, territorial funds of obligatory medical insurance, bodies of regional and municipal authorities, etc. A more close localization of all of the

participants helps identify more efficiently the needs of the population of a specific territory in the nature and volume of medical care and a more economical use of resources.

2. Maintaining self-financing of the cluster through the management of financial flows of different origin, including on the basis of the decrease in the total costs due to the formation of collective use centers.

3. Self-organization through the establishment of the coordinating council of the cluster responsible for the establishment of unified goals, objectives and allocation of responsibilities between all the members of the cluster.

The health cluster in the region (or the medical cluster) brings together on a voluntary basis legally independent organizations that are interested in improving the quality and increasing the availability of medical services for the population. These organizations can be medical institutions of various forms of ownership located in the region, hospitals, infrastructure, medical training institutions, territorial obligatory medical insurance fund, insurers, and non-governmental organizations. The main task in the formation of the medical cluster is **to organize interaction and communication** between all its actors in the interests of overall healthcare development in the region and implementation of their own interests. The result of this interaction can be PPP projects, creation of common competence centers, formation of a unified database and more. Organization of interaction of all participants within the cluster can be carried out by the coordinating council that unites the heads of participant organizations in the cluster. Thus, the cluster as an organizational form creates a “shell”, an environment, the possibility of “contact” for the emergence of PPP projects. In the framework of cluster relations, there can be not one but several PPP projects.

5. Conclusion

The study considered in the paper has shown the following.

1. The imperfection of the system of healthcare financing in the Russian Federation resulted in many negative trends in this sector: shortage of doctors, hospital mortality increase, sharp reduction in the number of settlements

in which medical care is provided, reduction of investment attractiveness of the sector.

2. Public-private partnership at the level of capital investment in healthcare facilities and the provision of medical services is declared as one of the priority directions of the state financial policy in the healthcare of the Russian Federation aimed to increase the efficiency of using public funds through the introduction of market mechanisms of management.

3. A feature of the PPP projects in healthcare that distinguishes them from the projects for the construction of roads and other infrastructure consists in the fact that their initiators along with private investors are mostly not the federal, regional and municipal authorities. Therefore, unlike other sectors, when forming a common policy in the sphere of PPP in healthcare, federal authorities should focus primarily on the positive experience and proposals developed in the regions.

4. The life cycle concept of services can be the methodological basis of the state policy in the selection of priority objects for PPP in the healthcare sector, because on the basis of this concept it is possible to substantiate the types of objects of financing that correspond to the stages of the life cycle of creating and implementing high-tech medical services.

5. Simultaneously with the task of efficient implementation of PPP in the health sector of the Russian Federation, it is necessary to develop the management approach based on clusters, which is relatively new in the health sector.

References

1. Batievskaya V., Shabashev V. Transformatsiya podkhodov k gosudarstvennomu regulirovaniyu rossiiskogo zdravookhraneniya [Transformation of Approaches to Government Regulation of Russian Healthcare]. *Vestnik Omskogo universiteta. Seriya "Ekonomika"* [Omsk University Bulletin. Series "Economics"], 2013, no. 2, pp. 66-72.
2. Varnavskii V.G. Gosudarstvenno-chastnoe partnerstvo: nekotorye voprosy teorii i praktiki [Public-Private Partnership: Some Issues of Theory and Practice]. *Mirovaya ekonomika i mezhdunarodnye otnosheniya* [World Economy and International Relations], 2011, no. 9, pp.41-50.
3. Vedenyapin I.E. Opredelenie etapov zhiznennogo tsikla uslugi kak odin iz metodologicheskikh aspektov sozdaniya sistemy menedzhmenta kachestva dlya sfery okazaniya sotsial'nykh uslug [Definition of Stages of Life Cycle of a Service as One of Methodological Aspects of Creation of System of Quality Management for Sphere of Rendering of Social Services]. *Vestnik UGATU* [Ufa State Aviation Technical University Bulletin], 2011, vol. 15, no. 5 (45), pp. 216-221.
4. Volkov M. *Reforma zdravookhraneniya: koshelek ili zhizn'* [Healthcare Reform: Trick or Treat]. Available at: <http://rusrand.ru/news/reforma-zdravookhraneniya-koshelek-ili-jizn> (accessed June 01, 2015).
5. Gorchakova E.V. Osobennosti teorii gosudarstvenno-chastnogo partnerstva [Specifics of the Theory of Public-Private Partnership]. *Rossiiskoe predprinimatel'stvo* [Russian Entrepreneurship], 2014, no. 3, pp. 25-33.
6. *GOST 30335-95/GOST R 50646-94 "Uslugi naseleniyu. Terminy i opredeleniya"* [GOST 30335-95/GOST R 50646-94 "Services for Population. Terms and Definitions"]. Available at: <http://skladzakonov.narod.ru/gost/Gz50646-94.htm>.
7. Dubrovskaya Yu.V., Gubaidullina R.V. Gosudarstvenno-chastnoe partnerstvo kak faktor sbalansirovannogo regional'nogo razvitiya [Public-Private Partnership as a Factor in Balanced Regional Development]. *Vestnik Permskogo universiteta. Ser. "Ekonomika"* [Perm University Bulletin. Series "Economics"], 2015, no. 1, pp. 35-45.
8. Edinaya informatsionnaya sistema gosudarstvenno-chastnogo partnerstva v RF [The Unified Information System of Public-Private Partnership in the Russian Federation]. *Minekonomrazvitiya RF* [The RF Ministry of Economic Development]. Available at: <http://pppi.ru> (accessed November 01, 2015).
9. Zherdev R.A. Gosudarstvenno-chastnoe partnerstvo kak draiver razvitiya otechestvennogo zdravookhraneniya [Public-Private Partnership as a Driver for the Development of National Healthcare]. *Rossiiskoe predprinimatel'stvo* [Russian Entrepreneurship], 2015, vol. 16, no.18, pp. 3125-3128.
10. *Zdravookhranenie v Rossii. 2015: Stat.sb.* [Healthcare in Russia. 2015: Statistics Collection]. *Rosstat* [Federal State Statistics Service]. Moscow, 2015. 174 p.
11. Kontseptsiya razvitiya zdravookhraneniya RF do 2020 goda (pervaya versiya) [The Concept for Development of Healthcare in the Russian Federation until 2020 (First Version)]. *Komissiya Ministerstva zdravookhraneniya i sotsial'nogo razvitiya RF po razrabotke kontseptsii razvitiya zdravookhraneniya do 2020 goda* [Commission of the Ministry of Healthcare and Social Development of the Russian Federation on the Development of the Concept for Healthcare Development until 2020]. Moscow, 2008. 168 p.
12. Kuznetsov S.V. Razvitie instituta gosudarstvenno-chastnogo partnerstva v protsesse modernizatsii professional'nogo obrazovaniya [Development of Public-Private Partnership Institution in the Modernization of Professional Education]. *Ekonomika i upravlenie* [Economy and Management], 2014, no. 3, pp. 53-58.
13. Mazikova E.V. Sharapova P.O. Finansovoe obespechenie sistemy zdravookhraneniya, primenyaemoe v mirovoi praktike [Financial Provision of the Healthcare System, Applied in the World Practice]. *Problemy i perspektivy upravleniya ekonomikoi i marketingom v organizatsii* [Problems and Prospects of Economic Management and Marketing in the Organization], 2011, no. 11. Available at: http://perspectives.utmn.rU/2011_11/2.5.htm (accessed June 01, 2015).

14. Molchanova M.Yu., Mel'nikov A.E. Finansovye osnovy reformirovaniya ambulatorno-poliklinicheskikh uchrezhdenii [Financial Basis for the Reform of Outpatient Facilities]. *Vestnik Permskogo universiteta. Ser. "Ekonomika"* [Perm University Bulletin. Series "Economics"], 2011, no. 2, pp. 70-78.
15. Molchanova M.Yu., Mel'nikov A.E. Modernizatsiya otnoshenii mestnykh organov vlasti s munitsipal'nymi uchrezhdeniyami zdravookhraneniya [Modernization of Relations between Local Authorities and Municipal Healthcare Institutions]. *Vestnik Permskogo universiteta. Ser. "Politologiya"* [Perm University Bulletin. Series "Politicalology"], 2008, no. 2, pp. 163-169.
16. O gosudarstvenno-chastnom partnerstve, munitsipal'no-chastnom partnerstve v Rossiiskoi Federatsii vnesenii izmenenii v otdel'nye zakonodatel'nye akty Rossiiskoi Federatsii: Federal'nyi zakon: prinyat 13 iyulya 2015 g. [About Public-Private Partnership, Municipal-Private Partnership in the Russian Federation, Introduction of Amendments to Certain Legislative Acts of the Russian Federation: Federal Law: Adopted on July 13, 2015]. *Rossiiskaya gazeta* [Russian Newspaper], 2015, no. 6727, July 17.
17. O kontsessionnykh soglasheniyakh: Federal'nyi zakon ot 21.07.2005 № 115-FZ [On Concession Agreements: Federal Law of July 21, 2005 No. 115-FZ]. *Sobranie zakonodatel'stva Rossiiskoi Federatsii* [Collection of Russian Federation Legislation], 2005, no. 30, Article 3126.
18. *Reiting regionov GChP-2014-2015. Razvitie gosudarstvenno-chastnogo partnerstva v sub"ektakh Rossiiskoi Federatsii* [The Rating of Regions by Indicator of PPP-2014-2015. Development of Public-Private Partnership in the Subjects of the Russian Federation]. Available at: http://www.pppcenter.ru/assets/files/reytingREG-Block_26-03-2015_web.pdf (accessed June 01, 2015).
19. *Reformy finansirovaniya zdravookhraneniya. Opyt stran s perekhodnoi ekonomikoi* [Implementing Health Financing Reform: Lessons from Countries in Transition]. Ed. by J. Kutzin, Ch. Cashin, M. Jakab. Copenhagen: European Observatory on Health Systems and Policies, 2011. 442 p.
20. Taplaskhanova E.O., Mustafaeva Z.A. Gosudarstvenno-chastnoe partnerstvo v zdravookhranении [Public-Private Partnership in Healthcare]. *Rossiiskoe predprinimatel'stvo* [Russian Entrepreneurship], 2012, no. 13, pp. 112-118.
21. *Finansy, denezhnoe obrashchenie i kredit* [Finance, Money Circulation and Credit]. Ed. by M.V. Romanovskii, O.V. Vrublevskaia. Moscow: Yurait-Izdat, 2009. 543 p.
22. Uiba V.V., Chernyshev V.M., Pushkarev O.V., Strel'chenko O.V., Klevasov A.I. *Ekonomicheskie metody upravleniya v zdravookhranении* [Economic Methods of Healthcare Management]. Novosibirsk: Al'fa-Resurs, 2012. 314 p.
23. *Ekonomicheskie osnovy zdravookhraneniya v Rossiiskoi Federatsii. Istochniki finansirovaniya zdravookhraneniya* [Economic Basis of Healthcare in the Russian Federation. Healthcare Funding Sources]. Available at: <http://medbe.ru/materials/obshchestvennoe-zdorove-i-zdravookhranenie/ekonomicheskie-osnovy-zdravookhraneniya-v-rossiiskoy-federatsii-istochniki-finansirovaniya-zdravookh/> (data obrashcheniya 10.10.2015).
24. Kotler P. *Marketing Management: Analysis, Planning, Interpretation, and Control. 8th Edition*, 1994.
25. Suire R., Vicente J. Clusters for Life or Life Cycles of Clusters: in Search of the Critical Factors of Clusters' Resilience. *Entrepreneurship and Regional Development*, 2014, no. 26, pp. 142-164.
26. Tsai B.-H., Li Y. Cluster Evolution of IC Industry from Taiwan to China. *Technological Forecasting and Social Change*, 2009, no. 76, pp. 1092-1104.

Cited Works

1. Batievskaya V., Shabashev V. Transformation of Approaches to Government Regulation of Russian Healthcare. *Omsk University Bulletin. Series "Economics"*, 2013, no. 2, pp. 66-72.
2. Varnavskii V.G. Public-Private Partnership: Some Issues of Theory and Practice. *World Economy and International Relations*, 2011, no. 9, pp.41-50.

3. Vedenyapin I.E. Definition of Stages of Life Cycle of a Service as One of Methodological Aspects of Creation of System of Quality Management for Sphere of Rendering of Social Services. *Ufa State Aviation Technical University Bulletin*, 2011, vol. 15, no. 5 (45), pp. 216-221.
4. Volkov M. *Healthcare Reform: Trick or Treat*. Available at: <http://rusrand.ru/news/reforma-zdravoohraneniya-koshelek-ili-jizn> (accessed June 01, 2015).
5. Gorchakova E.V. Specifics of the Theory of Public-Private Partnership. *Russian Entrepreneurship*, 2014, no. 3, pp. 25-33.
6. *GOST 30335-95/GOST R 50646-94 "Services for Population. Terms and Definitions"*. Available at: <http://skladzakonov.narod.ru/gost/Gz50646-94.htm>.
7. Dubrovskaya Yu.V., Gubaidullina R.V. Public-Private Partnership as a Factor in Balanced Regional Development. *Perm University Bulletin. Series "Economics"*, 2015, no. 1, pp. 35-45.
8. The Unified Information System of Public-Private Partnership in the Russian Federation. *The RF Ministry of Economic Development*. Available at: <http://pppi.ru> (accessed November 01, 2015).
9. Zherdev R.A. Public-Private Partnership as a Driver for the Development of National Healthcare. *Russian Entrepreneurship*, 2015, vol. 16, no.18, pp. 3125-3128.
10. Healthcare in Russia. 2015: Statistics Collection. *Federal State Statistics Service*. Moscow, 2015. 174 p.
11. The Concept for Development of Healthcare in the Russian Federation until 2020 (First Version). *Commission of the Ministry of Healthcare and Social Development of the Russian Federation on the Development of the Concept for Healthcare Development until 2020*. Moscow, 2008. 168 p.
12. Kuznetsov S.V. [Development of Public-Private Partnership Institution in the Modernization of Professional Education. *Economy and Management*, 2014, no. 3, pp. 53-58.
13. Mazikova E.V. Sharapova P.O. Financial Provision of the Healthcare System, Applied in the World Practice. *Problems and Prospects of Economic Management and Marketing in the Organization*, 2011, no. 11. Available at: http://perspectives.utmn.ru/2011_11/2.5.htm (accessed June 01, 2015).
14. Molchanova M.Yu., Mel'nikov A.E. Financial Basis for the Reform of Outpatient Facilities. *Perm University Bulletin. Series "Economics"*, 2011, no. 2, pp. 70-78.
15. Molchanova M.Yu., Mel'nikov A.E. Modernization of Relations between Local Authorities and Municipal Healthcare Institutions. *Perm University Bulletin. Series "Politology"*, 2008, no. 2, pp. 163-169.
16. About Public-Private Partnership, Municipal-Private Partnership in the Russian Federation, Introduction of Amendments to Certain Legislative Acts of the Russian Federation: Federal Law: Adopted on July 13, 2015. *Russian Newspaper*, 2015, no. 6727, July 17.
17. On Concession Agreements: Federal Law of July 21, 2005 No. 115-FZ. *Collection of Russian Federation Legislation*, 2005, no. 30, Article 3126.
18. *The Rating of Regions by Indicator of PPP-2014-2015. Development of Public-Private Partnership in the Subjects of the Russian Federation*. Available at: http://www.pppcenter.ru/assets/files/raytingREG-Block_26-03-2015_web.pdf (accessed June 01, 2015).
19. *Implementing Health Financing Reform: Lessons from Countries in Transition*. Ed. by J. Kutzin, Ch. Cashin, M. Jakab. Copenhagen: European Observatory on Health Systems and Policies, 2011. 442 p.
20. Taplaskhanova E.O., Mustafaeva Z.A. Public-Private Partnership in Healthcare. *Russian Entrepreneurship*, 2012, no. 13, pp. 112-118.
21. *Finance, Money Circulation and Credit*. Ed. by M.V. Romanovskii, O.V. Vrublevskaya. Moscow: Yurait-Izdat, 2009. 543 p.
22. Uiba V.V., Chernyshev V.M., Pushkarev O.V., Strel'chenko O.V., Klevasov A.I. *Economic Methods of Healthcare Management*. Novosibirsk: Al'fa-Resurs, 2012. 314 p.

23. *Economic Basis of Healthcare in the Russian Federation. Healthcare Funding Sources.* Available at: <http://medbe.ru/materials/obshchestvennoe-zdorove-i-zdravookhranenie/ekonomicheskie-osnovy-zdravookhraneniya-v-rossiyskoy-federatsii-istochniki-finansirovaniya-zdravookh/> (data obrashcheniya 10.10.2015).
24. Kotler P. *Marketing Management: Analysis, Planning, Interpretation, and Control. 8th Edition*, 1994.
25. Suire R., Vicente J. Clusters for Life or Life Cycles of Clusters: in Search of the Critical Factors of Clusters' Resilience. *Entrepreneurship and Regional Development*, 2014, no. 26, pp. 142-164.
26. Tsai B.-H., Li Y. Cluster Evolution of IC Industry from Taiwan to China. *Technological Forecasting and Social Change*, 2009, no. 76, pp. 1092-1104.

Information about the Author

Margarita Yur'evna Molchanova – Ph.D. in Economics, Associate Professor, Head of the Department of Finance, Credit and Stock-Exchange Business, Perm State University (15, Bukirev Street, Perm, 614990, Russian Federation, molchanova@econ.psu.ru)