

www.iet.ru

Stockholm University
St Petersburg State University
SPIDER-PE

SPIDER Working Paper Series #16. St. Petersburg, 2000.

Issues of Health Care Financing in Russia

Sergey V. Shishkin
Dr.Sc.
Institute for the Economy in Transition
Moscow

Abstract

The paper analyses three key issues in the reform of public health care funding in the Russian Federation: the lack of funds to cover the state guarantees of free medical care to the population; the lack of coordination between different funding agencies; and the lack of improvements in the performance of the new agencies financing health care and medical insurance. The paper concludes that the issue of reconsidering the constitutional guarantees of free health care must be seriously addressed and that the responsibilities of public agencies, particularly regional authorities, and health insurance carriers must be clearly distinguished and coordinated. The paper gives several concrete recommendations on how the problems could be solved.

1. Introduction

The transition from an administrative to a market economy in Russia has been accompanied by efforts to transform the budget system of health care financing into a system of compulsory health insurance (CHI). This reform suffers from the complexity of the structure of CHI chosen and its incomplete implementation. There is a mix of elements from the old and new systems of financing, different models of transition in different regions, and weak coordination of activities by the different agencies involved in public health care financing. Also, the attempt to introduce a competitive model of interaction between purchasers and providers of medical services has failed (Sheiman, 1997, pp. 65-67; Shishkin, 1998, pp. 298-308).

The current system of health care financing suffers from three key problems that influence the development of financing for Russian medical care:

- The state guarantees of free medical services to the population are not covered financially in an appropriate way.
- The activities of the different agencies involved in the financing of health care are not coordinated in a satisfactory manner.
- There is a lack of observable improvements in the performance of the new agencies in the system of health care financing, such as health insurance carriers and compulsory health insurance funds.

The purpose of this paper is to analyse these three key problems and propose potential solutions.

2. Lack of Funding for State Guarantees

Public health care expenditures decreased by 33% in real terms during the period from 1991 to 1998. The introduction of health insurance was viewed primarily as a means to obtain guaranteed sources of financing and to increase the financial inflows into the health care system. The contributions of employers to the compulsory health insurance have to some extent compensated for the significant reduction of budget funding. Overall, public expenditures on health care have decreased less than the expenditures on education and culture (Table 1). However, these funds are not sufficient to maintain the existing system of health care providing medical services to the population.

Table 1. Public expenditures on the social and cultural spheres (1991 = 100%)

	1991	1992	1993	1994	1995	1996	1997	1998
Health care, Including:	100	80	108	98	72	71	81	67
State budget	100	80	91	81	59	57	65	51
Obligatory insurance contributions of legal persons	-	-	17	17	13	14	16	16
Education*	100	79	79	76	56	58	64	52
Culture, art and mass media*	100	91	81	87	63	54	60	46

* - State budget expenditures.

Source: Calculated from the CSO(State Statistical Committee) data using GDP deflator indices.

The financial crisis of August 1998 had a dramatic influence on the economic condition of the health care sector. In 1998, the public financing of health care (including both budget and employer contributions to the CHI) decreased by 18.5% in comparison to 1997.

The expenditures required to provide medical services in fulfilment of the state guarantees amounted to 4.02% of GDP in 1998. The basis for this estimate is the Ministry of Health calculation of the current expenditures necessary to provide medical assistance at existing levels, if the structure of medical assistance is preserved (i.e. if there are no changes in the ratio of in- and out-patient assistance). The above expenditures can be viewed as the estimated cost of the state guarantees of medical assistance to the population, though with two major reservations. First, the calculations did not take into account the expenditures on highly specialised medical assistance, which are paid through the Federal budget. Second, the stated amounts do not include expenditures on depreciation and purchases of new medical equipment.

The calculated amount is the estimate of required current expenditures from the budgets of the 89 regions (i.e. the *members*) of the Russian Federation and the employer contributions to the CHI. In 1998, the total of the above amounted to 3.06% of GDP. As a result the financial coverage of state guarantees equalled 76%. Taking into account the assumptions underlying the calculated required expenditures, the level of financial coverage for the state guarantees of medical service to the population should be evaluated as even lower.

In 1998, the government took the first step towards reviewing the existing guarantees, and in September 1998, for the first time, a Programme of State Guarantees of Free Medical Assistance to the citizens of the Russian Federation was approved. In October 1999 the adjusted programme was approved by the government. This programme does not provide for any changes in the types of medical assistance that are to be provided free of charge to the population. However, in order to achieve balance between the public funds available and these guarantees, a far-reaching transformation of health care in favour of its less costly forms is planned. The process of reducing the number of hospital beds has already been begun during the past decade (Table 3). The

programme approved is oriented towards a continued movement in this direction, reducing the number of hospital beds where their use has low cost efficiency. The programme provides for decreased volumes of hospital treatment and shifts towards out-patient treatment. The share of expenditures on out-patient medical assistance, which currently average 27% in this country, is to grow to 35-40%. Compared to 1998, this resulted in lower expenditures on the provision of medical assistance at the levels determined by the state guarantee programme. The programme costed 3.59% of GDP in 1999.

The financial coverage for the approved programme of state guarantees equalled 81% (Table 2).

2.1 Possible developments

Table 2 presents two forecast scenarios of the financial coverage for state guarantees in the year 2000. Both scenarios are based on the statistical estimate of macroeconomic indicators for the year 2000 that was carried out by the Bureau of Economic Research (Moscow); GDP growth is forecast at 1.0% and the inflation rate at 124% (BEA, 1999).

Scenario 1 assumes increase in health care expenditures in the budgets of the members of the Russian Federation – from 2.08% in 1999 to 2.38% of GDP in 2000. The employer contributions to the CHI, and other revenues of the CHI funds will be on same level as in 1999. The total will amount to 3.21% of GDP. This equals 100% of the costs of the state guarantees programme.

Scenario 2. The expenditures of the members of the Russian Federation on health care, as a percentage of GDP, will amount to 2.15%. Together with the employer contributions to the CHI, and with other revenues of the CHI funds this will amount to 2.98% of GDP. The second forecast scenario implies that the structural shifts in the medical assistance take not place and the volume of outpatient and inpatient treatment are in 2000 the same as in 1998. Then the public funding will cover only 80% of the cost of the delivered treatment.

Table 2. Evaluation of the financial coverage for the state guarantees of free medical services to the population (in per cent of GDP)

	1998	1999	2000 (forecast)	
			1	2
GDP, billion roubles	2684	4476	5500	5500
GDP deflator index, % to the previous year	111.5	160.9	124.0	124.0
Public expenditures on health care, Including:	3.27	3.14	3.46	3.20
Federal budget	0.21	0.23	0.25	0.22
Budgets of the members of the Russian Federation	2.19	2.08	2.38	2.15
Contributions to the compulsory health insurance of employed population	0.75	0.73	0.73	0.73
Other revenues of the funds of compulsory health insurance*	0.12	0.10	0.10	0.10
Expenditures necessary to fulfil the state guarantees**	4.02	3.59	3.20	3.72
Including the costs of basic programme of compulsory health insurance	2.75	2.51	2.03	2.60
Financial coverage level of the state guarantees,	76	81	100	80

%***				
------	--	--	--	--

Source: Authors calculations based on data from CSO, the Ministry of Health Care, and the Ministry of Economy of the Russian Federation.

*Revenues of the CHI funds from deposits, fines, interest on fines, other sanctions and other revenues.

** In calculations for 1998, the cost of the actual medical assistance provided during the year. In calculations for 1999, the cost of the approved federal programme of state guarantees. In calculations for 2000 in scenario 1, the cost of the approved adjusted programme of state guarantees; in scenario 2, the cost of the same volume of outpatient and inpatient treatment as in 1998.

*** An indicator is calculated by dividing the sum of the expenditures from the budgets of the members of the Russian Federation, contributions to the compulsory health insurance of the employed population and other revenues of the CHI funds, by the estimated costs of the state guarantees of free medical assistance to the population.

The first forecast scenario implies that the state guarantees can be funded by the current level of public health care financing from the budgets and the CHI funds. However, this would require the following:

- Movement of about 20% of volume of in-patient services into the out-patient service sector and development of medical services which can substitute for in-patient services;
- Reduced level of guaranteed free medicines to in-patients in hospitals;
- Reduced guaranteed level of emergency medical assistance;
- Increase in health care financing from the regional budgets by 14% in real terms compared with the 1999 level;
- No expenditures to maintain the existing network of health care at different levels and a transition to payments for the volumes of medical assistance. This would necessitate excluding from public health care some health care facilities that are excessive compared to available resources;
- The introduction of a comprehensive territorial health care planning system to ensure the rational use of the total resources of the regional and municipal medical facilities;
- Improved transparency and establishment of strict control over the targeted use of public funds.

Table 3. Indicators of medical assistance to the population, 1985-1998.

	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998
Number of hospitals (thousands)	12.5	12.8	12.7	12.6	12.6	12.3	12.1	12.0	11.5	11.2
Number of hospital beds (per 1000 inhabitants)	13.5	13.8	13.5	13.1	12.9	12.7	12.6	12.4	12.1	11.9
Number of out-patient clinics (thousands)	19.4	21.5	20.9	20.7	20.9	21.6	21.1	22.0	21.7	22.0
Number of doctors of all specializations, Total (thousands)	620.7	667.3	632.2	637.2	641.6	636.8	653.4	669.2	673.7	682.0
Per 10000 inhabitants	43.2	45.0	42.6	43.0	43.4	43.3	44.5	45.7	46.2	46.9
Number of middle level medical personnel, Total (thousands)	1756.7	1844.0	1717.3	1709.1	1674.2	1613.2	1628.4	1648.6	1626.0	1615.0
Per 10000 inhabitants	122.4	124.5	115.8	115.3	113.1	109.7	110.0	112.7	111.5	111.1

Source: CSO, 1997, 1999.

It is obvious that in reality, fulfilling all the above conditions during the year 2000 and one or two consecutive years would be problematic. When this solution is evaluated, it should be taken into account that the needed deep restructuring of health care will require a substantial amount of time. The most radical measures related to restructuring (mergers of health care organisations, shutting down some city hospitals, etc.) imply high political costs.

However, even if all the above conditions are fulfilled, it would allow financing of only the minimum necessary expenditures on medical assistance. The unit costs of medical assistance applied in the programme of state guarantees have been sharply criticised by professionals working in health care, the territorial CHI funds and medical insurance organisations in numerous regions of the Russian Federation. They consider that the proposed planned cost levels are too low in comparison

with the real costs. In 1999 the real financial coverage for the programme of state guarantees was equalled in average 60% in the members of the Russian Federation (Schetinina, 1999, p.1).

The second forecast scenario implies that public funding of health care will be still less than the cost of the delivered treatment. In this case a radical review of the state guarantees of free medical assistance to the population is necessary in order to create normal economic conditions for health care development. It will be necessary to legalise the payments by the population for the medical assistance they receive. Currently the lack of public financing for health care is compensated by informal payments on the part of the population. This is shown by the data from medical expenses surveys that were conducted in January 1998 and January 1999 in 14 Russian regions by the Institute of Social Research.^[1] On the basis of the results of these surveys, the expenses of the population on medicines and medical assistance can be estimated at 4.1% of GDP in 1997 and 4.5% of GDP in 1998. Public health care expenditures have shrunk from 3.6% to 3.1% of GDP. Therefore the total expenditures of the state and population taken together have hardly changed (Table 4).

Table 4. Health care expenditures in current prices, 1997-1998.

No		1997		1998	
		Billion roubles	% of GDP	Billion roubles	% of GDP
1	State budget	75.1	2.93	64.4	2.40
2	Employer contributions to compulsory health insurance	18.3	0.71	20.0	0.75
3	Total (1 + 2)	93.4	3.64	84.4	3.15
4	Expenditure of the population on medical assistance	32.5	1.27	38.1	1.42
5	Expenditure of the population on purchases of medicaments at pharmacies	71.7	2.80	83.1	3.10
6	Expenditure of the population on voluntary medical insurance	0.9	0.03	0.4	0.01
7	Total expenditure by the population on health care (4 + 5 + 6)	105.1	4.10	121.6	4.53
8	Total (3 + 8)	198.5	7.75	206.0	7.68

Source: CSO; author's estimates.

One important result of the survey is the collapse of the myth that the population pays for the bulk of medical assistance informally – “under the table” – directly to doctors and nurses. “Under the table” payments for medical assistance accounted for a minor part of the total medical expenditures of the population – only 23% in 1998. The remaining 77% was attributed by respondents to official payments. In reality the majority of these expenses should be classified as semi-official or quasi-formal payments: health care organisations officially suggest that patients should pay for services that by law should be provided free of charge.

The data of the above survey allows us to conclude that the health care system adjusts to the shrinking public financing and its substitution by the payments of the population. In some regions of the Russian Federation there have been attempts to legalise co-payments, in spite of their obvious contradiction to the Federal legislation. For example, in Perm oblast (region) a fixed fee for each visit to a doctor and each day in hospital was introduced by order of the Health Care Department of the Regional Administration. However, after protests by the District Attorney's Office this order was withdrawn. Draft legislation in Kaluga region “On the state guarantees of providing medical assistance to the residents of Kaluga region” also provides for the introduction of co-payments. Another mechanism is used in the Karelian Republic, where hospitals receive 80% of the pensions due to pensioners while they undergo general in-patient therapeutical treatment.

All the above shows that the issue of reconsidering constitutional guarantees and introducing co-payments for medical assistance by the population should be raised. Currently, when people have to pay for medical assistance that is formally free of charge, it is the poorer sections of the population and families outside major cities that are in the worst situation.

The section of the population with incomes below the subsistence minimum spends three times as large a share of its income on medical services and medicaments as the highest income group in the population. At the same time, poor people visit out-patient medical facilities less often than wealthy. The duration of in-patient treatments is shorter for members of low income groups than for members of high income groups.

Therefore, the continued gap between the costs of the constitutional guarantees of free medical services to the population and the funding of these guarantees leads in practice to the substitution of public expenditure on health care by private expenditure and to increased social injustice.

2.2 Remedies by official cost sharing with the population

One potential way to cover the costs of the state guarantees is to legalise the participation of the population in financing public health care. Various alternatives are possible for such participation:

1. Introduction of co-payments (additional payments) by the population at the point of consumption of medical services. In other words, patients (both in- and out-patients) will pay a certain fixed sum for each visit to a doctor, which will go to the general revenues of the medical assistance provider. One of the possible co-payment schemes is the introduction of fixed fees per family member for persons with incomes over the subsistence minimum, for both in-patient and out-patient medical assistance. In this case, to bring about balance between the existing volumes of medical assistance and their financial coverage, it will be necessary to charge a patient with above average income around 93.0 roubles in 1999 prices (\$ 3.8) per day as an in-patient, 13.3 roubles (\$ 0.5) for each visit to a doctor and 30.0 roubles for a day in a day-clinic (\$ 1.2).
2. Introduction of co-payment of insurance contributions to the compulsory health insurance for the employed population. For example, in addition to the employer's contribution to the CHI, the employee also pays a certain share of wages as an insurance premium to the CHI. To finance the existing levels of emergency, polyclinic and hospital assistance, such contributions should amount to around 4.4% of wages. If the structure of medical assistance is transformed as planned in the state guarantees programme (movement of some in-patient services to out-patient facilities), then the required level of insurance premiums to be paid by employees will not exceed 1.5% of their wages.
3. Establishment of a minimum mix of medical services and medicaments for each disease, which is guaranteed to be provided free of charge to each patient. Any medical assistance above this level should be paid by patients or on their behalf by insurance companies within the programme of voluntary medical insurance. The guarantees of free full medical treatment can be preserved for patients in low income groups and for some chronic patients.

The third alternative is the most difficult in terms of groundwork and supervision. However, in contrast to the first two alternatives, it provides for continued control by the patients over the volumes and quality of medical assistance they receive. If the first or second alternative is implemented, the introduction of co-payments could result in a situation where the patients will have to pay even more.

3. Insufficient Coordination Between Different Levels in the Funding System

The general process of government decentralisation has resulted in the decentralisation of health care administration: the vertical structure of administrative subordination was destroyed and the public health care system was divided into Federal, regional and municipal systems. Due to political conditions the division of authority between Federal, regional and municipal bodies was hurried, inadequately planned and not quite clear.

Some functions of health care administration were left without organisational and legal mechanisms

for their implementation. This primarily concerns the regulation of the use of the resource potential of some territorial health care systems to provide medical assistance to the residents of other territories.

Under the Soviet health care system there was a network of specialised inter-regional diagnostic and hospital centers, which provided services to the residents of several regions. In turn, different districts within a single region have significantly different potential for providing specialised medical services to the population, and the hospital resources of some districts could be and were used to provide medical assistance to the residents of neighbouring districts. Previously the provision of such inter-territorial medical assistance was planned by the central and regional health care administration bodies respectively.

3.1 Unclear division of responsibilities between budgetary and CHI funds

The subjects of compulsory health insurance were supposed to assume the function of purchasers of the whole spectrum of medical services. The territorial CHI funds and insurance companies have received the right to sign contracts with any medical organisations of any property type to provide the population with medical assistance. The volumes of such assistance are determined by the territorial CHI programmes. However, the CHI system has not been fully implemented and the CHI programmes are not fully funded. As a result the financial opportunities for territorial CHI funds and insurance carriers to regulate the inter-territorial medical assistance remained insignificant and the responsibility for providing the full complex of medical services to the population was ambiguous.

The health care administration bodies in their turn were supposed to assume the functions of control over medical assistance to the population and of financing the target programmes, including the provision of specialised medical assistance, which was not included in the CHI programmes [2]. Also, they are responsible for the development of the health care resource base. However, the rights and responsibilities of the health care administration bodies and the CHI funds were not clearly distinguished. This problem escalated due to the incomplete implementation of the CHI system: government and municipal bodies continue to finance medical organisations along with the CHI funds. According to data for 1998, only 32% of the total financing for public health care is accumulated and distributed through the CHI system, where employer contributions to the CHI account for 24% and transfers from the regional and local budgets for the purposes of compulsory health insurance for the unemployed population account for only 8% (Table 5). The Federal and regional health care administrations do not have sufficient financial resources to regulate the supply of medical services, including ex-territorial medical assistance, by acting as the sole purchaser of appropriate medical assistance. Health care budgets at various levels are, as a rule, decided on without determining rational levels for the volume and structure of medical assistance that needs to be financed.

Table 5. The structure of public health care expenditures 1992-1998 (shares in percent).

	1992	1993	1994	1995	1996	1997	1998
Federal budget	11	9	10	7	6	10	7
Budgets of the members of the Russian Federation,	89	76	72	75	74	71	69
Including contributions to the CHI funds	-	0	5	8	8	7	8
Employer contributions to the CHI	-	15	18	18	20	19	24
Total	100	100	100	100	100	100	100

Source: Authors calculations based on data from CSO.

Lately attempts have been made to introduce procedures for planning the activities of regional and municipal health care systems, and the level of their financing from different sources, and to coordinate the activities of various bodies to reach this goal. This process was initiated at the end of 1998, when the Federal programme of state guarantees for free medical assistance to the citizens of

the Russian Federation was approved and served as a basis for drafting territorial programmes in many members of the Russian Federation. However, the mechanism for drafting the territorial programmes lacks an adequate legislative basis, and the programmes themselves do not include a range of important elements (indicators for providing ex-territorial assistance, information plans and personnel support, etc.).

3.2 Paths of reform

The existing eclectic system of health care administration requires a reform.

The *first alternative* involves re-establishing the elements of vertical subordination, namely the administrative subordination of CHI funds to the health care administration bodies, centralisation at the level of a Federation subject of some share of budget funds, earmarked for financing municipal health care systems, and transferral of these funds to the disposal of a regional health care administration.

This alternative would allow for a relatively fast resolution of the worst collisions in the health care system, including the collisions between the health care administration bodies and the CHI funds. Federal and regional health care authorities would indeed acquire opportunities to use the health care resource potential more rationally than at present. But to what extent would these opportunities be used? The bureaucratic system of public governance provides few incentives for officials to increase the efficiency of allocations. The officials are much more interested in preserving the existing system of medical facilities.

This alternative would lead to the restoration of the problems typical of the old administrative system of health care management, such as inefficiency, lack of quality improvement incentives, weak institutions of patient protection, etc.

The *second alternative* for reforming the administration of health care is to preserve the autonomy the territorial CHI funds from health care administrative bodies, but at the same time to institutionalise the mechanisms for coordinating the activities of the regional and municipal health care administrative bodies, the CHI funds and the insurance carriers. In practice such coordination can be achieved if these organisations participate in jointly planning resource utilisation in the regional health care system in general and its municipal components in particular. The institutionalisation of coordination mechanisms for various bodies of health care is defined as the legislative elaboration of the health care planning system at the regional and municipal levels. This means the legislative determination of responsibilities, rights and procedures for participation in such planning by the authorities of the Federation members, local self-governance bodies, health care administrations, territorial CHI funds, health insurance carriers. Here the autonomy of the territorial CHI funds would be preserved and no attempts to subordinate some exercisers of governance to the others would be made.

This second reform alternative opens up greater opportunities for creating an efficient health care system, appropriate for market economy conditions.

4. The Role of the Insurance Agencies

The introduction of an compulsory health insurance system had two major goals: 1) to ensure guaranteed sources of financing and to increase financial inflows into the health care sector; 2) to create institutional backing for improving the efficiency of the health care system (Sheiman, 1997, pp. 65-67).

It was planned to achieve these goals by fixing compulsory contributions by employers to the health insurance of their employees (the contribution was set at 3.6% of the wage fund of an enterprise) and by introducing market elements into the health care funding system. Here Russia, along with other transition economies, has followed the example of Western countries, which have been

implementing quasi-market financing systems in their public sectors (Le Grand & Bartlett, 1997).

The idea was to switch from public financing of medical services within the framework of an integrated administrative system to a system where medical services are paid for by insurance carriers interacting with suppliers of such services on a contract basis. The Law on Health Insurance, adopted in 1991 provided for the implementation of an compulsory health insurance model and competition between private insurance carriers, which were to purchase the medical services. This model was adjusted in 1993. To collect the CHI contributions, specialised public financial institutions, the territorial CHI funds, were created in each member of the Russian Federation. The local branches of these funds were entitled to act as insurers in the CHI system.

A special feature of the Russian CHI system is the existence of two different types of insurers: 1) health insurance carriers, and 2) branches of the territorial CHI funds. As a rule the former are private commercial companies. In 1998 there were a total of 415 (Federal CHI fund, 1999). The latter are structural divisions of the government financial institutions, territorial CHI funds. There is a territorial fund in each of the 89 regions that are members of the Russian Federation. The number of territorial fund branches reached 1170 in 1998. The insurance functions were carried out solely by insurance carriers in 38 subjects of the Russian Federation, solely by the territorial CHI funds and their branches in 20 regions, and by a mixture of both in 31 regions.

The number of insurance carriers operating within the CHI system began to shrink in 1997. In the course of two years, their number has decreased by 23%. Insurance carriers were leaving the CHI market mostly due to decisions made by administrative bodies. Some regions, such as Moscow and the Khanty-Mansyisk autonomous district, introduced accreditation procedures for insurance carriers that wanted to operate within the CHI. This resulted in a reduced number of such companies and a redistribution of the CHI insurance market among the remaining insurers. In Moscow accreditation took place at the end of 1996, and only 8 of 25 carriers received accreditation. The decision to decrease the number of insurers on the CHI market was made before the accreditation process (Kuznetsov & Chelidze, 1998), which became an instrument for implementing this administrative decision. In Khanty-Mansyisk the accreditation of insurers took place in September 1997; 4 out of the 15 companies received accreditation (Chemzov, 1997). In Kursk region non-government insurance companies were expelled from the CHI system by a simple decision by the governor of the region (Poryadin, 1997, p. 6).

Table 6. The structure of the compulsory health insurance system, 1993-1998.*

	1993	1994	1995	1996	1997	1998
Territorial CHI funds	86	86	88	88	89	90
Branches of the territorial CHI funds	1058	1103	1140	1108	1160	1170
Health insurance organizations	164	439	536	538	461	415

Source: Federal CHI fund. *End of year data

The Concept of health care and medical science development in the Russian Federation approved by the Russian Government in November 1997 (Government, 1998, pp. 2-7) provided for the preservation of private insurers as the major purchaser of medical services within the CHI system. According to this conception, the branches of CHI funds are permitted to carry out the insurer function only in areas where the low population density makes it difficult for insurance carriers to operate. However, the approval of this conception did not stop debate about whether it is justifiable to preserve private insurance organisations in the CHI system.

It is hard to arrive at reliable estimates of the existence and intensity of competition among the insurers. The widely accepted opinion is that there are no signs that insurers compete for clients through the quality of their services, the availability of information and the protection of patients' rights. Changes in the established insurance field occur either due to administrative decisions in the CHI funds or by insurers winning over the managers of enterprises who sign agreements for medical insurance for their employees. In the latter case the arguments probably have a financial nature:

better opportunities for paying contributions by barter schemes, greater personal incentives for the managers of the enterprises, etc. As a result the expected positive effects of introducing new agents into the health care system, related mostly to a more rational use of available resources and improved control over the quality of treatment, have not materialised in a sufficiently obvious degree. Most medical personnel have therefore begun to treat the CHI funds, and more particularly insurance companies, as unnecessary and expensive middlemen in the system of health care financing in the prevailing conditions of economic crisis. The activities of health insurance carriers in the CHI system have been severely criticised. As a rule the insurance carriers are passive middlemen between the CHI funds and the medical facilities: in reality they merely transfer to the latter financial funds received from the territorial CHI funds, after deducting agency fees. They do not exert any control over the way funds are spent, the quality of medical services or the protection of patients' rights. In the opinion of opponents of the reform, the expenditures on insurance carriers and the CHI funds are too high and their usefulness is doubtful. In 1998 the administrative costs of CHI funds and their branches amounted to 3% of their revenues, and the operational costs of the health insurance carriers to 3.3% (Federal CHI fund, 1999).

To give a concrete answer to the question whether it is justifiable for private insurance carriers to operate within the CHI system, it is necessary to understand under what conditions their participation in the CHI system can assist in improving the efficiency of health care resource utilisation. Is competition necessary for insurance carriers to operate efficiently? Can the activities of private insurance carriers within the CHI have a positive effect if there is no competition?

The issues involved in implementing the model of public health care financing where the purchasers of medical services compete with each other, the conditions required for such a model to operate successfully, and its positive influence on the efficiency of health care have been studied well enough^[3]. Another model of public health care financing, which separates the purchasers and providers of medical services but does not involve competition among the purchasers, has also been analysed. It has been shown that separating the purchasers and providers of medical services and introducing contract relationships among them in itself has a range of advantages over the integrated management and financing of health care by government^[4]. However, attention has focused on the influence of these innovations on the efficiency with which the providers of medical services operate. Let us consider the institutional conditions for efficient operations by the purchasers of medical services within the system of public health care financing.

From the point of view of the economic theory, the relationships between a purchaser of medical services and the state can be described as a relationship between agent and principal (Bejean, 1994). An agent-principal situation occurs when one subject (the principal) entrusts another subject (the agent) with carrying out certain functions, but is unable to monitor the actions of the agent in carrying out these functions, or has incomplete information about the past or future actions of the agent (Stiglitz, 1989, p. 241). When funds are transferred from the principal to the agent, the principal imposes certain requirements with regard to the target and the procedure for using these funds, prescribes sanctions for violating these requirements and checks up on the execution of the requirements. These actions can be described as pressure exerted by the principal on the agent.

In the case of the compulsory health insurance system, the government sets the requirements for the structure, volumes, quality and costs of medical assistance provided to the population, and these requirements are to be fulfilled by the insurer. These are requirements related to the performance of public services. The government can also set requirements for the efficiency with which the resources transferred to the insurer are utilised. Such requirements can be stated in the government normative acts (programme documents), or they can be set during the negotiation or extension of contracts with the insurers. The establishment of government requirements related to the performance of the insurers and the enforcement of such requirements will be termed government pressure.

Apart from government pressure on the insurer, the existence of other competing purchasers of medical services (other insurers) can become an incentive for each insurer to perform efficiently. Let us call this factor competitive pressure. The conditions under which competition among the purchasers of medical services will have a positive influence on the performance of public funds are (Sheiman, 1998, pp. 67-68):

- A government policy designed to stimulate competition among the purchasers and among the providers;
- A sufficient level of administrative capability among the purchasers to allow them to choose the most efficient alternatives for providing medical assistance;
- Enforcement of the rights of patients to choose medical organisations and doctors;
- Financial responsibility of the purchasers for efficient resource utilisation in the health care system.

Whether or not the insurance carriers will conduct activities aimed at improving the performance of health care resources, will depend on the existence and the power of the two types of pressure considered above.

The power of government pressure on the insurer will be determined by the following factors:

- How specific the formal institutions are, i.e. the degree of legal requirements imposed on the insurer's activities by legislative acts and contracts;
- How strictly the government observes its own rules establishing the obligations of the government in financing medical services;
- The extent to which the activities of insurers can be monitored (to what extent the government can and in reality does check up on the insurer's actions);
- The existence and power of sanctions for violations of government requirements by the insurer;
- The probability that these sanctions will be applied, which in turn is determined by the political opportunity and the will of officials to apply sanctions against the violators of government requirements for insurers.

The feasibility of monitoring the insurer in turn depends on:

- Technical and economic conditions (technical possibility of monitoring the performance of the insurer and the costs of such monitoring);
- The administrative abilities and discipline of the government administration. The requirements for the use of public funds prescribed in the normative acts and directives of higher level authorities, and even the generic reflection of such requirements in contracts with the insurers, may remain a mere declaration of intent if the specific official dealing with the insurer on behalf of the government does not know how to monitor the fulfilment of such requirements or does not want to make any additional efforts necessary for monitoring;
- The political feasibility and rationality of monitoring the insurer's activities.

The power of competitive pressure is determined by the following factors:

- The number of insurers participating in the CHI system;
- How well informed the population is about the activities of various insurers and what the costs of obtaining the necessary information and changing insurer are;
- The existence and use of sanctions against cartel agreements among the insurers.

It is obvious that strong government pressure accompanied by strong competitive pressure creates the most favourable conditions for improved performance by every insurer and improved efficiency of health care resource utilisation. This situation corresponds to the ideal model of the CHI, which is prescribed by the existing law on medical insurance.

On the other hand, when the government requirements for the rational use of resources are of a purely declarative nature or are ill-specified, or there is no possibility of monitoring the fulfilment of formal requirements, or when there are no significant sanctions for violations of established requirements, or these sanctions are not enforced, the insurer can make high profits without making efforts to improve the performance of public funds.

The existence of competition among the purchasers creates better conditions for improved efficiency of resource utilisation, but is not sufficient to achieve this goal. The decisive factor is the power of government pressure. Weak government pressure on the insurers will unavoidably be accompanied by weak government protection for the institution of legal competition, which will inevitably be substituted by cartels or will move into the shadow economy. In this case, the influence of competition on the efficiency of resource utilisation will at best be neutral.

Insurers can operate effectively even when competition among them is weak or non-existent, provided that strong government pressure exists. Government pressure will be a sufficient factor to push the insurer towards performance goals under the following conditions:

- The establishment of highly detailed requirements for the structure, volumes, quality and costs of medical services in the normative acts;
- The existence of requirements for the economic performance of the purchasers; such requirements can include norms regulating the procedures for making decisions related to the distribution of funds (financial planning procedures in the health care system, required obligatory provision of operating plans to ensure the rational organisation of patient flows and the medical treatment of the insured at the facilities with the maximum cost efficiency); monitoring of the use of funds. Fulfilling such norms will inevitably mean making decisions that improve the effectiveness of resource utilisation;
- Low costs of monitoring the fulfilment of the requirements laid down;
- The existence of material sanctions for violations of the requirements set and their guaranteed enforcement upon the discovery of a violation;
- The insurers being sufficiently knowledgeable and qualified to make correct decisions and choose rational alternatives in organising medical assistance and to argue in favour of such decisions vis-à-vis the medical organisations.

In Russia the government requirements for rational resource utilisation are declarative and poorly specified. There is insufficient control even over the targeted use of budget appropriations, let alone monitoring of actual performance. The government does not fulfil its responsibilities in financing health care. Per capita public funding of insurers do not fully cover the free medical assistance guaranteed to the insured. Quite often these per capita funding change several times in the course of a single year, which discourages any efforts to save funds. In many cases the regional and local authorities force the insurers to sign contracts with specific medical organisations in an attempt to keep such facilities within their territory, irrespective of considerations of efficiency.

Under such conditions it would be naïve to hope that the operations of the insurers will facilitate improved efficiency in the use of public funds. It is more natural for insurers to fight for the entire amount of the funds they receive to pay for medical services, and to live on agency fees as well as on legal and illegal revenues from the commercial use of funds at their temporary disposal.

At the same time the operations of Russian insurers provide examples of institutional innovations that create conditions for more efficient resource utilisation in the CHI system. The institutional innovations are used by the insurers as a method of extending the field of their operations during the transitional period, when various types of medical and medicament assistance, which were previously financed from the budgets, have gradually been transferred into the system of compulsory health insurance.

Effective institutional innovations of this kind include:

- Decreased costs for receiving and transferring information due to:
- The creation of automatic accounting systems for medical services provided and automatic systems for medical supplies;
- The introduction of plastic magnetic cards for automated accounting of the medical assistance provided to each insured person and the execution of appropriate settlements between the insurance companies and medical organisations;
- The elaboration of draft normative documents on introducing medical economic standards, which establish the required level of efficiency for CHI resource utilization;
- The implementation of market procedures for resource distribution.

One example of the latter type of innovation is the experiment that took place in Moscow in 1997-1998 at the initiative of two health insurance carriers, Max-M and Rosno (Zurabov, 1997, pp. 42-43). They succeeded in acquiring the function of financing medicaments for those groups of people whose medicaments were financed from the state budget. The insurance carriers discovered that preferential prescriptions of this type were counterfeited on a large scale. The change from blank prescriptions and stricter controls over procedures for prescribing medicaments made it possible to exclude the opportunities for abuse. The insurance carriers implemented bid procedures for purchases of medicaments. This experiment allowed city budget savings in the area of medicaments purchases at a level of 30% of the expenditures originally planned for these purposes in the Moscow city budget for 1997 (Matvienko, 1999, p. 1).

However, such examples are exceptions. If competition is not stimulated, and most importantly if government pressure on the insurers is not increased by developing the necessary legislative base and enforcing the requirements that have been established, the insurance companies in reality do turn out to be unnecessary middlemen in the public health care system. Meanwhile serious efforts by the state are needed in order to introduce and enforce the appropriate requirements. The willingness to make such efforts is not in evidence. Instead, in contradiction to the articles of the government conception of health care development, the regional authorities conduct a policy of crowding out insurance companies from the CHI system.

4. Conclusions and Recommendations

In order to solve the economic problems of Russian health care, a balance must be achieved between the needs and structure of medical assistance, as stipulated in the programme of state guarantees, and the availability of financial resources to fund this structure and meet the needs. In addition, the government programme must be fully financed. To achieve this balance, it is necessary to revise the state guarantees in the area of health care and to legalise the participation of the population in paying for the medical services now provided within the framework of the state guarantees programme.

The most important step towards improving the rationality of resource utilisation in health care would be to develop financial planning procedures that would encompass all agencies involved in public health care financing. The regional health care administrations (together with the financial authorities of the regional government and of the municipal authorities) should annually conclude a contract on a territorial health care programme with the municipal health care authorities and the territorial CHI fund. This programme should determine the volumes and structure of medical assistance to be provided to the population of the entire region and of each municipal entity.

It is necessary to overcome the existing duality of power in financing the medical assistance stipulated in the CHI programme. This problem could be solved by establishing clear requirements in the Federal legislation concerning the procedure and size of payments to the CHI funds by the regional and municipal authorities for the unemployed population; or by introducing targets for transfers from the Federal budget and regional budgets to the CHI funds; or by ear-marking a fixed

share of tax revenues for CHI funds.

Preservation of the CHI model with the participation of private insurance carriers opens a strategic perspective of developing competition among the purchasers of medical services within the system of public financing. The subject of the competition will be the quality of medical services and information delivered to the insured. It would also increase the efficiency of public financing due to the joint action of two forces: government pressure and competitive pressure. A simplification of the CHI system, and expulsion of the private health insurance carriers from the CHI system, would close this strategic perspective.

However, without comprehensive funding of the state guarantees it is not realistic to hope that any competition will develop among insurance agencies. Only if such financial coverage is achieved and the government fulfils its obligations is it possible to hope for and demand increased efficiency of resource utilisation by other participants in public health care. This should be accompanied by tougher requirements for the activities of the insurance carriers participating in the CHI system, and for monitoring how these requirements are fulfilled.

References

- BEA. (1999), *Informatsionno-analyticheskiy bulleten* (Information and analysis bulletin), No. 20, December.
- Bejean, S. (1994), *Economie du système de santé. Du marché à l'organisation*, Paris, Economica.
- Boikov, V., Fili, V., Sheiman, I., & Shishkin, S., (1998), "Raskhody naselenia na meditsinskuyu pomosh I lekarstva" (Expenditures of the population on medical assistance and medicaments). *Voprosy ekonomiki* (Issues in economics), No. 10, pp. 101-117.
- Changes in Health Systems in Europe: towards new Contracts between Providers, Payers and Governments?*, (1995), Paris, Edition ENSP.
- Chemezov, O., (1997), "Tseniu otvetstvennost I chuvstvo meri" (I value responsibility and balance), *Meditsinskii vestnik* (Medical newsletter).
- CSO, (2000) Gosudarstvennyi komitet Rossiiskoi Federatsii po statistike (The State Statistical Committee of the Russian Federation). *Sotsialno-ekonomicheskoe polozhenie Rossii. 1999 god* (Social and economic trends in Russia. 1999), Moscow, Goskomstat of Russia.
- CSO, (1999) Gosudarstvennyi komitet Rossiiskoi Federatsii po statistike (The State Statistical Committee of the Russian Federation). *Sotsialno-ekonomicheskoe polozhenie Rossii v 1998 godu* (Social and economic trends in Russia in 1998), Moscow, Goskomstat of Russia.
- CSO, (1997), Gosudarstvennyi komitet Rossiiskoi Federatsii po statistike (The State Statistical Committee of the Russian Federation). *Sotsialnoe polozhenie I uroven zhisni naselenia Rossii* (Social situation and living conditions of the Russian population), Moscow, Goskomstat of Russia.
- Federal CHI fund, (1999) Federalnyi fond obyazatel'nogo meditsinskogo strakhovaniia (Federal compulsory health insurance fund). *Obyazatel'noe meditsinskoe strakhovanie v 1998 godu* (Compulsory health insurance in 1998), Moscow, Federalnyi fond obyazatel'nogo meditsinskogo strakhovaniia (Federal compulsory health insurance fund).
- Federal CHI fund, (1998), *Federalnyi fond obyazatel'nogo meditsinskogo strakhovaniia: Sisteme obyazatel'nogo meditsinskogo strakhovaniia – 5 let* (Federal compulsory health insurance fund : The system of compulsory health insurance is 5 years old), Moscow, Federalnyi fond obyazatel'nogo meditsinskogo strakhovaniia (Federal compulsory health insurance fund).
- Government of RF, (1998), Pravitel'stvo Rossiiskoi Federatsii. "Kontseptsia razvitiia zdravookhraneniia I meditsinskoi nauki v Rossiiskoi Federatsii" (The government of the Russian Federation. Conception of health care and medical science development in the Russian Federation), *Meditsinskii vestnik* (Medical newsletter), No. 2.
- Institute for the Economy in Transition, (1999), *Russian Economy in 1998. Trends and Outlooks*, Moscow.
- Kuznetsov, P. P., Chelidze, N. P., (1998), "OMS: itogi I perspektivi" (Compulsory health insurance: results and perspectives), *Meditsinskoe strakhovanie* (Health insurance), No. 16.

- Le Grand, J. and W. Bartlett, (1993), *Quasi-Markets and Social Policy*, London, Macmillan.
- Matvienko, V., Obyediniv usilia mi vyzhivem (We will survive by uniting our efforts), *Meditsinskii vestnik* (Medical newsletter), No. 1, p. 1, 1999.
- Poryadin, V., (1997), "Meditsinskoe strakhovanie bez prikras" (Medical insurance without window-dressing), *Meditsinskii vestnik* (Medical newsletter), No. 24.
- Saltman, R. & Figueras, J., (1997), eds., *European health care reform. Analysis of current strategies*, Copenhagen, WHO.
- Saltman, R., (1997), Applying planned market logic to developing countries' health systems: an initial exploration. Room of health sector reform. *Discussion paper* No. 4, World Health Organization.
- Savas, V. & Sheiman, I., (1997) "Contracting models and provider competition in Europe", *World Health Organization Book on European health care reforms*, World Health Organization.
- Schetinina M. "Garantii eto svjatoie" (The guarantees are holy), *Meditsinskiy vestnik* (Medical newsletter), No. 19 (134).
- Sheiman, I., (1997), "From Beverige to Bismark: health finance in the Russian Federation", in Sheiber G, (ed.), *Innovations in health care financing. World Bank Discussion Paper* No. 365, Washington DC, the World Bank.
- Sheiman, I., (1998), *Reforma upravlenia I finansirovania zdravookhranenia* (Reform of health care administration and financing), Moscow, Rus, Izdattsentr, 1998.
- Shishkin, S. (1998) "Priorities of the Russian Health Care Reform". *Croatian Medical Journal*, No. 3 (39).
- Stiglitz J., Eatwell, J., et al. (eds.) *The New Palgrave. Allocation, information and markets*. London, Macmillan Reference Books.
- USAID, (1999), "Raskhody naselenia na meditsinskie uslugi I lekarstva. Resultati sotsiologicheskogo monitoringa" (Expenditures of the population on medical services and medicaments, Results of sociological monitoring) Report of the Institute for social studies provided by the USAID, Moscow.
- Zurabov, M. Yu., (1997), "Pyat let na strakhovom pole moskovskogo regiona" (Five years in the insurance field of Moscow region), *Ekonomika zdravookhranenia* (The economics of health care), No. 8/9.

[1] Within the framework of the Project for support of legislative initiatives in the health care sector of Boston University (Boikov, et al., 1998; USAID, 1999).

[2] CHI programmes do not include emergency medical assistance, treatment of socially dangerous diseases (AIDS, tuberculosis, etc.), expensive high-tech types of in-patient treatment, etc.

[3] Saltman R., 1997; Savas V. & Sheiman I., 1997.

[4] Changes in Health Systems in Europe: towards new Contracts between Providers, Payers and Governments? 1995; Savas V. & Sheiman I., 1997.