



NATIONAL RESEARCH UNIVERSITY
HIGHER SCHOOL OF ECONOMICS

Sergey Shishkin, Elena Potapchik, Elena Selezneva

OUT-OF-POCKET PAYMENTS IN THE POST-SEMASHKO HEALTH CARE SYSTEM

BASIC RESEARCH PROGRAM

WORKING PAPERS

SERIES: PUBLIC ADMINISTRATION

WP BRP 14/PA/2014

Sergey Shishkin¹, Elena Potapchik², Elena Selezneva³

Out-of-pocket payments in the post-Semashko health care system⁴

This paper presents the analysis results of existing practices of out-of-pocket payments in the Russian post-Semashko health care system. It was carried out based on the data reflected in the ‘Russia Longitudinal Monitoring Survey’ from 1991-2012 and data of the ‘Georating’ survey carried out in all regions of the Russian Federation in 2010.

The trends of legal and informal out-of-pocket payments for inpatient and outpatient care are revealed, and the social and economic factors which make patients pay a fee for medical services for fee are identified. The changes in out-of-pocket health expenditures in 2005-2010 are analyzed, and the assessment of total (public and private) health expenditures on different types of health care is made.

JEL Classification: I10,I11

Keywords: Semashko health care system, health care, out-of-pocket payments, private payment, informal payment

¹ National Research University Higher School of Economics, Center for Health Policy, Director, E-mail: shishkin@hse.ru

² National Research University Higher School of Economics, Institute for Health Economics, Leading Research Fellow, E-mail: epotapchik@hse.ru

³ National Research University Higher School of Economics, Center for Health Policy, Research Fellow, E-mail: evselezneva@hse.ru

⁴ The article and findings of the Monitoring of Economic Developments in Health Care System presented in it were made possible due to funding from the Basic Research Program at the National Research University Higher School of Economics.

1. Introduction

The post-Semashko health care system is characterised by a combination of broad state guarantees of free health care inherited from a socialist past and the widespread practice of out-of-pocket payment for medical services (Gotsadze, Gaál, 2010). In the nineties, during the transformational crisis, the development of private health care financing the CIS countries was a forced substitution of public spending cuts (Sheiman, Langenbrunner, et al., 2010). In 2000, health care expenditure per household in CIS countries reached 38.8%, while in Western Europe it was only 15.4% (HFA-DB). But during the economic growth of the 2000s, when public spending on health in CIS countries increased in nominal terms per capita 3.3 times (from \$143 PPP USD in 2000 to \$469 USD in 2010), the expenditure of the population for medical services and medicines grew even faster: the increase in nominal terms was 3.5 times (from \$103 USD to \$345 USD), and the share of these costs in total health expenditure increased slightly - to 40.4 % in 2010 (HFA-DB).

What is the role of out-of-pocket payments in post-Semashko health care system? Russia is the most representative object of study to answer this question. On the one hand, unlike the post-Soviet countries of the Caucasus and Central Asia (Gotsadze, Gaál, 2010), Russia kept extended guarantees of free health care, and a significant part of the population gets it free (Potapchik, Selezneva, Shishkin, 2011). On the other hand, both legal and informal (under-the-table) payment practices⁵ have developed in Russia while. for example, in Ukraine paid medical services are prohibited for public health facilities and patients pay medical staff under-the-table (Lekhan, Rudi, Richardson, 2010; Popovich, Potapchik, Shishkin, et al., 2011). Moreover, in Russia there are significant differences in the geographic prevalence of out-of-pocket payment practices (Shishkin, 2008).

General trends analysis in the development of private health care funding in Russia between 1990 and 2000 have been done by Shishkin, Sheiman (2009), Sabirianova, Zelenska (2010), Popovich et al. (2011), and OECD (2012).

Many authors have researched the prevalence of formal and informal health care payment, the amount of such payments, and their impact on household budgets (Shishkin, 2004; Besstremyannaya, Shishkin, 2005; Panova, Rusinova, 2005; Aleksunin, Mitkov, 2006; Roszdravnadzor RF, 2009; Potapchik, et al., 2011).

⁵ By 'informal' or 'under-the-table' payment we mean, following Gaal, et al. (2006), "direct contribution, which is made in addition to any contribution determined by the terms of entitlement, in cash or in kind, by patients or others acting on their behalf, to health care providers for services that the patients are entitled to".

Researchers have paid special attention to informal payments. Several publications were aimed at identifying the main causes of informal payment practices, the prevalence of its different institutional models, and the negative impact of these practices on access to health care and the motivation of health personnel: Nakatis, Kadyrov (2002), Ensor (2004), Shishkin (2004, 2008), Gaal, et al. (2010), S-media (2011), OECD (2012).

The objective of this publication is to analyse the complex characteristics of out-of-pocket payments and their role in the Russian healthcare system.

The following tasks were identified within the framework of the objective:

- Analysis of trends in the prevalence of legal and informal out-of-pocket payments for inpatient and outpatient care in the 1990s - 2000s;
- Description of regional differences in the prevalence of out-of-pocket payment for inpatient and outpatient care;
- Identification of the factors which make patients pay a fee for medical services;
- Assessment of household's expenditure on various kinds of medical care and evaluation of its contribution in the total cost of care.

The empirical basis for the study was:

- 1) Data from the Russia Longitudinal Monitoring Survey (RLMS) 1991-2012 carried out by the Higher School of Economics (HSE).
- 2) Data from the "Georating" sociological survey carried out in 2010 by Funds of Public Opinion (FPO) per request of HSE (2010).

RLMS sampling is representative of the Russian population. In the study, all members of the households included in panel sampling are involved. In different years, the RLMS sampling consists of 3.2 to 6.4 thousand households and from 8.3 to 17 thousand respondents.

Sampling of the "Georating" included Russian citizens aged 18 years and older. Survey data is representative of each region of the Russian Federation. Total sampling of the "Georating" amounts to 41.5 thousand people. In each of the 83 regions, 500 people are being surveyed.

2. Prevalence of out-of-pocket payments for health care

2.1. Changes in the share of patients paying for their treatment - 1994-2012

In the early 90s, due to the transformational economic crisis and reduction in state health financing, medical facilities were forced to provide some services for a fee, and the burden of health financing was partially transferred onto the patients. Most of the population continued to

receive free medical care, but the prevalence of payments in health care in subsequent years grew (Figure 1 and 2)⁶. RLMS data allow us to estimate the dynamics of this process after 1994.

The share of those who paid for outpatient care a month prior to the time of the survey⁷ increased from 4.0% in 1994 to 14.7% in 2012. The share of those who paid for tests and medical procedures increased from 8.8% in 1994 to a maximum of 27.4% in 2006, then began to decline. In 2012, 17% of patients applying for outpatient care paid fully or partially for medical services. This decline is evidently reflected the increase of accessibility of free tests and examination for Russian citizens due to significant public investment in the purchase of new diagnostic equipment, which were made in the framework of the national project "Health" implemented from 2006 - 2013 (Popovich, Potapchik, Shishkin, et al., 2011).

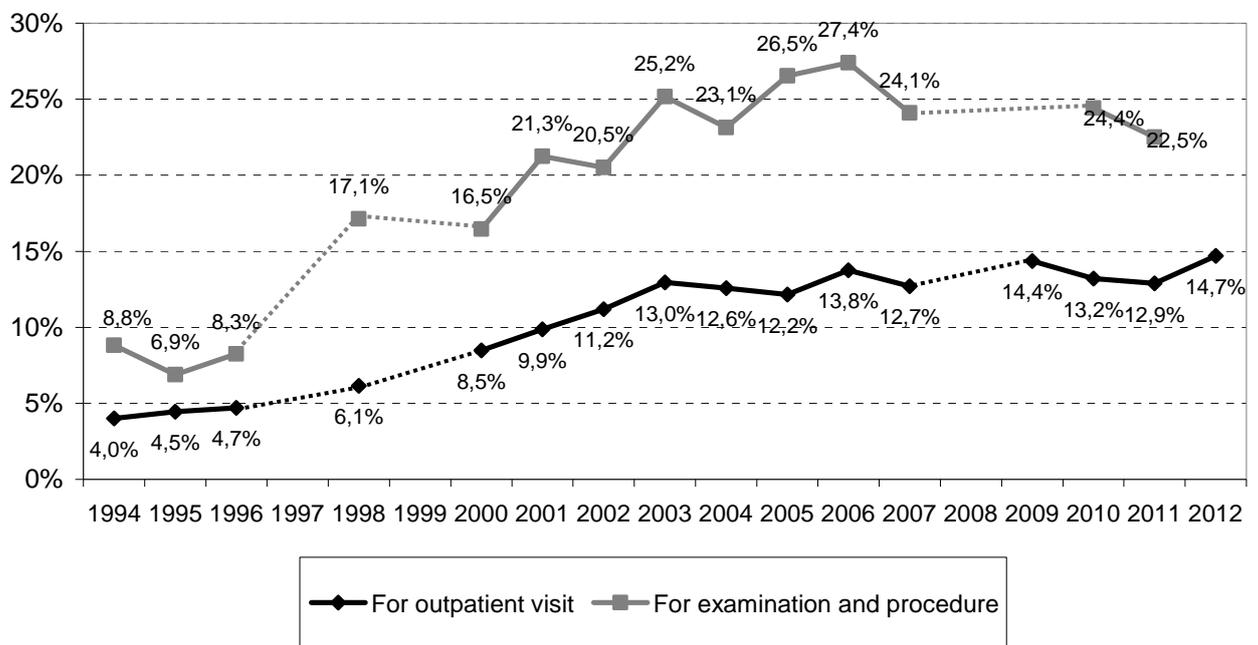


Fig. 1. Share of outpatients who paid for medical services, %⁸

Source: RLMS data

The share of patients treated in hospital during the three months preceding the survey increased from 13.8% in 1994 to 57.1% in 2002, and then declined to 23.9% in 2012. In studying the payments for inpatient care, two components should be distinguished: i) payment for treatment and hospital stay, and ii) a separate payment for medicines⁹. The provision of

⁶ Cases of payment include both formal, and informal payments.

⁷ Population surveys are conducted by RLMS annually in October-November.

⁸ In 2009, 2011 and 2012, paying to visit a health care worker was considered in all cases of appeal within 30 days, and in the other years the payment was considered only in the last occasion of appeal for 30 days.

⁹ Such separation of the elements of hospital care payment was introduced by RLMS in 2000.

medicines in the hospital should be free of charge to patients, however in the 90s due to a lack of public funds, hospital patients often had to pay for medications needed for treatment. In 2001, the share of hospital patients who paid for medicines was 52.8%. In the following decade, this share had a tendency to decrease (Fig. 1). In 2012, this indicator was 18.3%. Such a trend is likely due to an increase in public funding by virtue of considerably improved drug provision in hospitals. Thus, the necessity of patients paying for drugs in hospitals by themselves was reduced. The share of patients who paid for treatment and hospital stay, increased from 12.6% in 1994 to 19.1% in 2009. In 2010, this figure declined sharply, but it seems to reflect the changes in the sample from 2010.

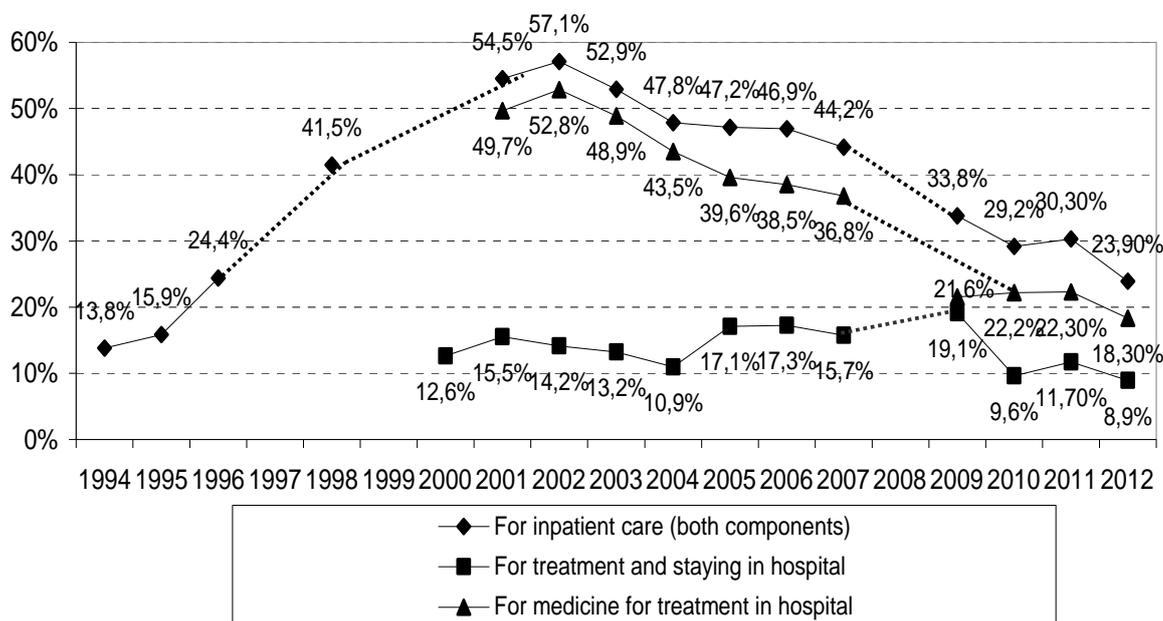


Fig.2. Share of respondents who paid for inpatient care, %
Source: RLMS data

2.2. Prevalence of formal payment practice

The dynamics of out-of-pocket payments for health care take made legally and informally can be traced from 2000 onwards when the relevant questions were included in the RLMS survey.

Throughout the entire review period the payment for doctor consultations and diagnostic services were increasingly done in a legal form, i.e. through the cash register of medical facilities (Fig. 3). In 2001 the proportion of respondents who made formal payments for outpatient care was 49.2%, and it grew up to 76.6% in 2012. Formal out-of-pocket payments for diagnostic services increased from 68.3% 2001 to 85.5% in 2011.

In contrast, the share of patients who formally paid for inpatient care (i.e. through the cash register of hospitals or pharmacies, in case of drugs needed for inpatient treatment) declined in 2001-2009 and increased only in last years.

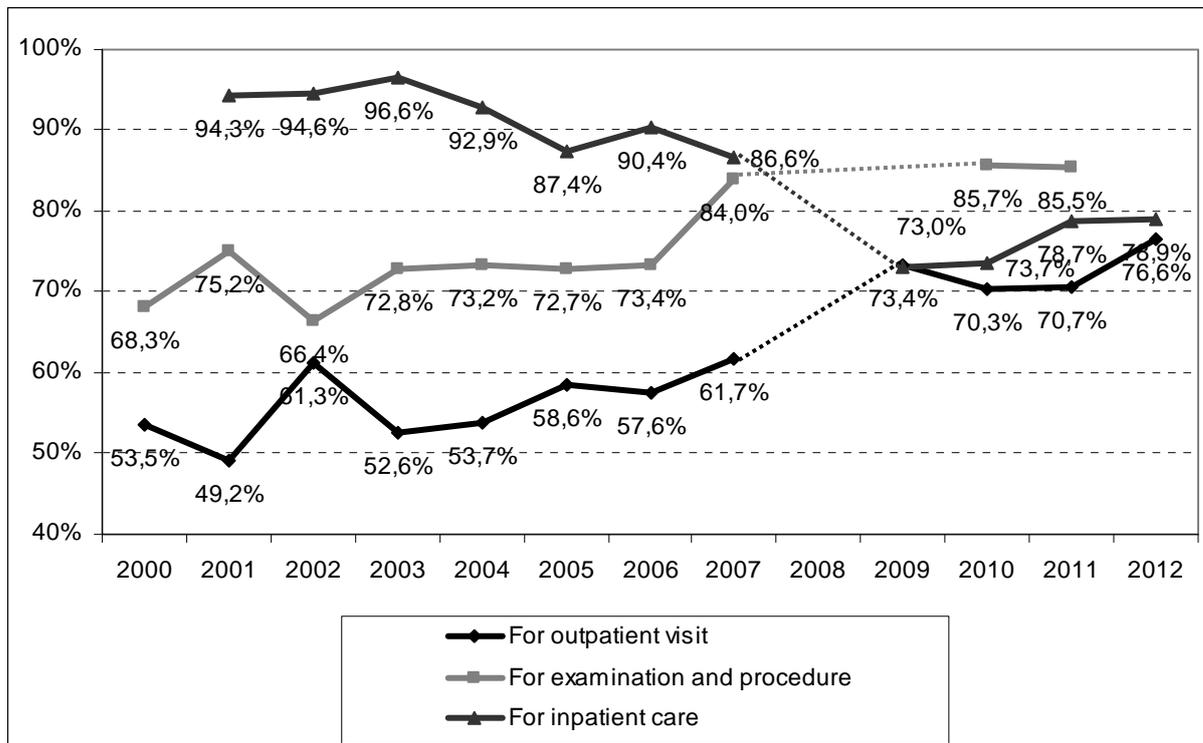


Fig. 3. Trends of formal payment prevalence (share of patients paid formally, %).

Note: In 2008 such questions were not included in the questionnaire. In 2009, payments for diagnostic services were not considered.

Source: RLMS data.

Informal payment rarely appears as an addition to formal payment: most of those who paid did so “in the cash office” only or only “in the hands”. A small portion of the respondents pointed to the fact that when paying for health care, they used both forms of payment. The share of these respondents ranged from 3% when receiving outpatient care to up to 8% when receiving inpatient care.

Formal payment is used much more frequently when paying for medicines for inpatient treatment than when paying for treatment overall or for the services of physicians and hospital staff. In 2012, the share of inpatients who formally paid for medical treatment was 92.8% of all of those paid in any form for medicines for inpatient treatment. The percentage of those who made formal payments for personnel services and inpatient treatment in total was only 43.2%. Therewith, the tendencies the formal out-of-pocket payments prevalence for various elements of hospital care are multi-directional. The share of those who formally paid for the services of medical personnel was constantly decreasing, while the share of formal payments for

pharmaceuticals remained relatively stable, fluctuating from year to year from 99.1% in 2003 to 91.7% in 2009.

2.3. Prevalence of formal payment practice

In 2000, about half of the respondents who paid out-of-pocket for outpatient care used informal payments, but the prevalence of under-the-table payment for outpatient care was reduced in the following years, and in 2012 this indicator reached 28.1% (Fig. 4).

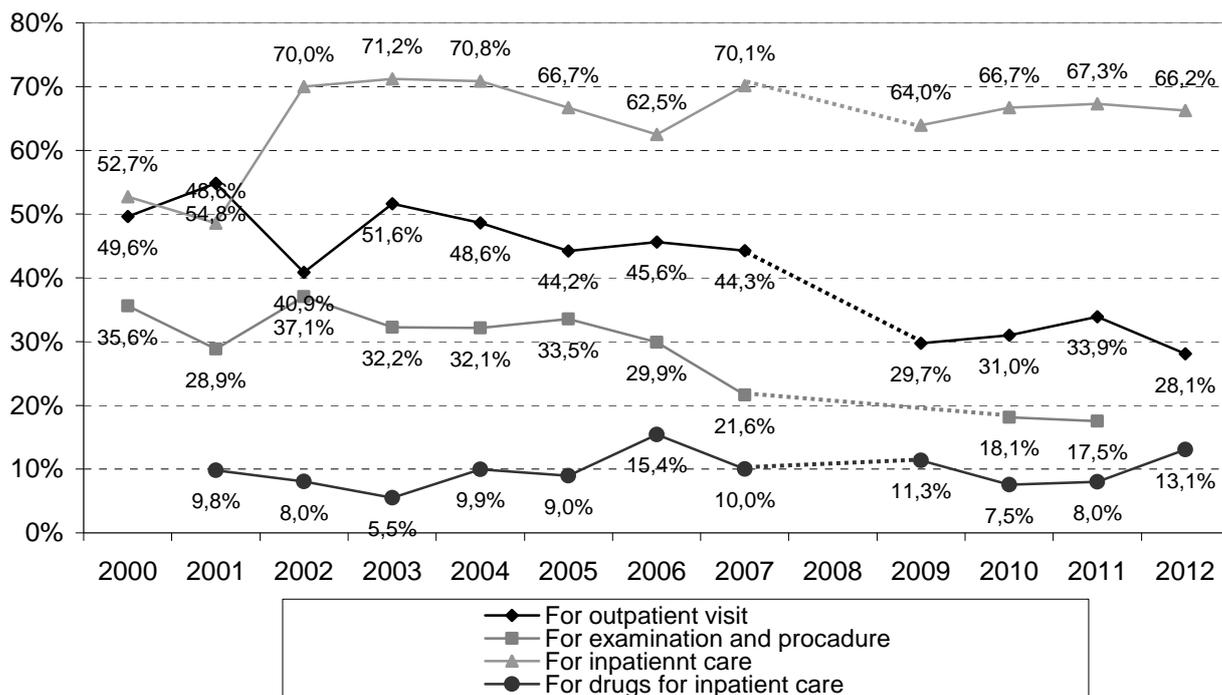


Fig. 4. Trends of informal payment prevalence (share of patients paid informally among those who paid, %)

Source: RLMS data

A similar downward trend in the informal out-of-pocket payments prevalence has been observed in the sector of diagnostic services. The share of respondents who answered that they paid for diagnostic services informally, making under-the-table payments to medical personnel, declined from 35.6% in 2001 to 17.5% in 2011.

The prevalence of informal payments for inpatient care, in contrast, has been relatively constant in recent years: about two-thirds of those who paid for inpatient medical services did so informally.

2.4. Regional variations in out-of-pocket payment prevalence

Previous studies have revealed differences between the regions in the prevalence of out-of-pocket payment practices (Shishkin, 2004, 2008), but these studies were limited to comparing multiple regions or large groups of regions. The opportunity to study these regional differences

for all subjects of the Russian Federation first appeared due to the “Georating” survey carried out in 2010 FPO per HSE request. The questionnaire of the “Georating” was expanded with questions specifically for this purpose. The respondents indicated, whether they sought outpatient care (other than dental and dental prosthetic) for 3 months prior to the survey, or they were treated in hospital for 12 months before the survey. Those seeking medical services noted whether they paid for these services, and in what form (formal or informal).

Analysis of the “Georating” data confirmed the presence of significant regional differences in almost all indicators under consideration. With an average 29%¹⁰ of out-of-pocket payments for the whole sample, the prevalence of these practices varied by region, from 66% in the Chechen Republic to 8% in the Altai Republic (Fig. 5).

The proportion of those who formally paid for receiving outpatient care varied considerably by region – from 100% to 27%. In almost all regions (81 regions out of 83) formal payments for outpatient care were used more often than the informal payments (Fig. 6).

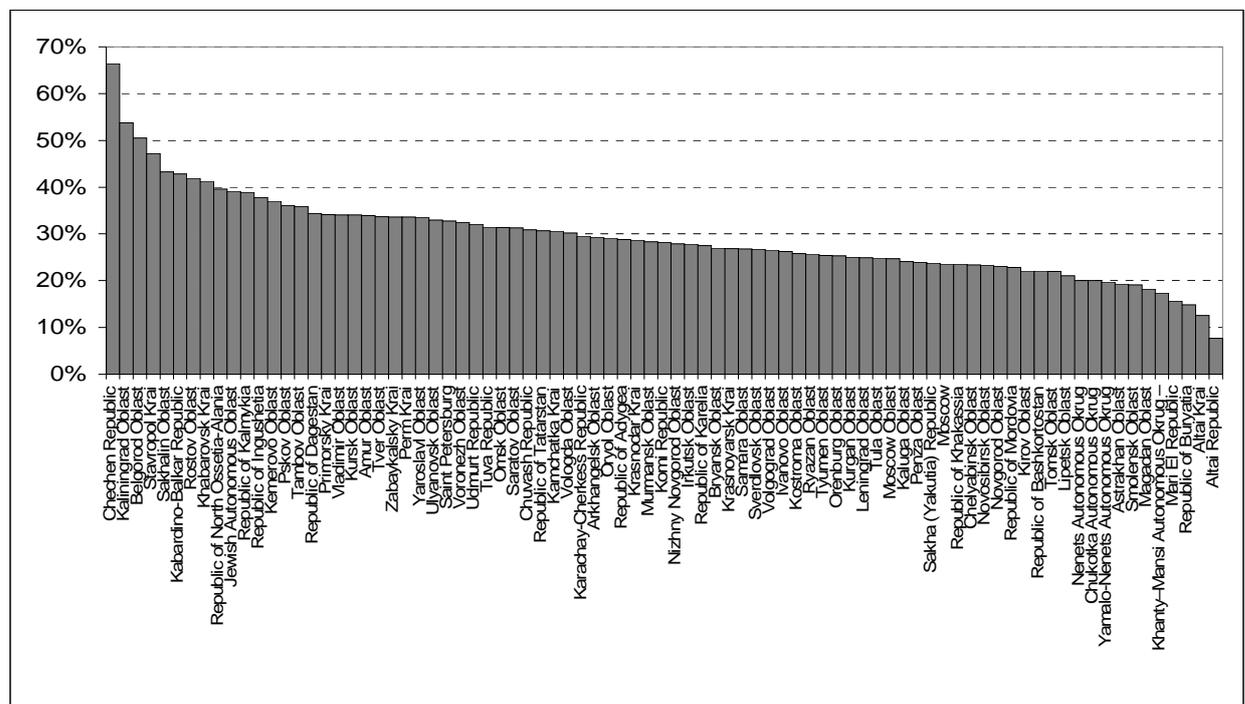


Fig. 5. Share of patients paid for outpatient care by region, %, 2010
Source: “Georating” 2010

¹⁰ Two sociological surveys analyzed in this study, RLMS and “Georating”, measured the out-of-pocket payments prevalence in health care by its forms. They indicate different levels of measured phenomena. The data obtained from the “Georating” survey, show significantly higher levels of out-of-pocket payments prevalence. This discrepancy in the estimates is mainly explained by differences in sampling in both surveys. The prevalence of people’s participation in the health care private financing varies greatly, depending on the socio-economic characteristics of respondents, age and gender, place of residence, education level, etc. Meanwhile, the structure of the samples in these research projects varies considerably by key socio-demographic characteristics of respondents. In this case, the “Georating” data are not provided for comparing the figures for the whole country, but rather for the analysis of regional differences (RLMS data do not allow this).

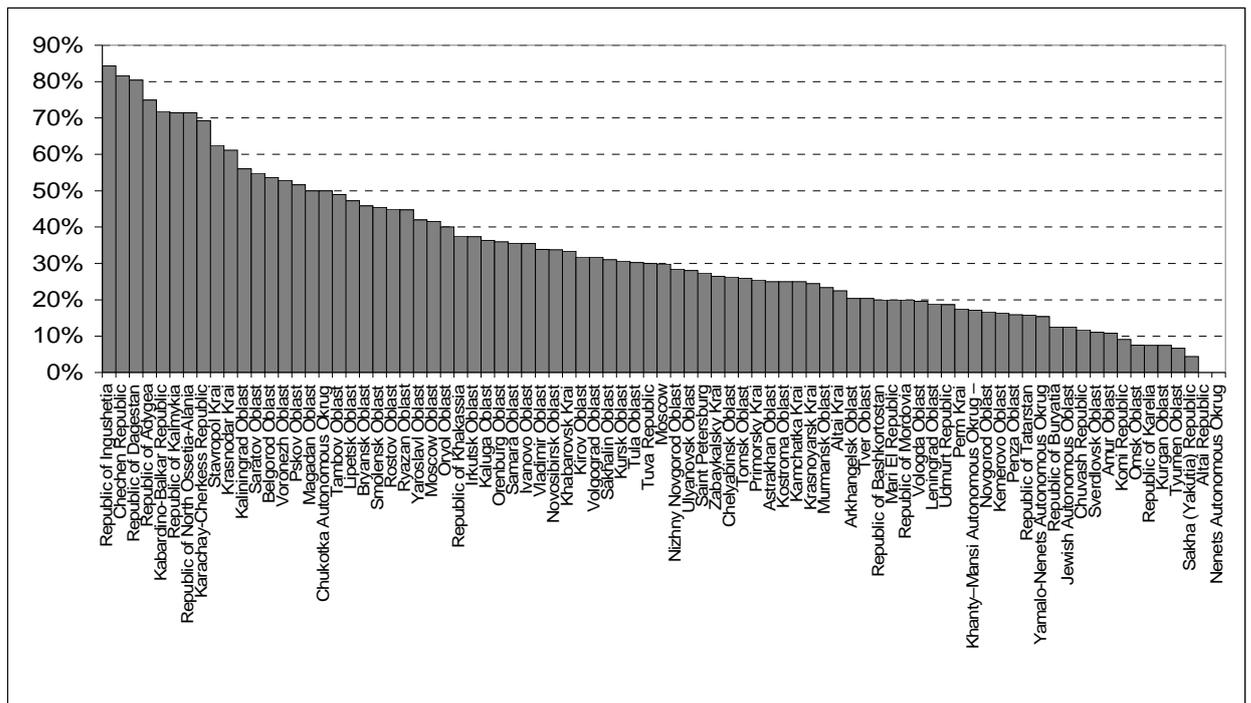


Fig. 7. Share of patients who informally paid for outpatient care by region, %, 2010
 Source: “Georating” 2010

The prevalence of out-of-pocket payments for inpatient care, similar to the case of outpatient care, varies considerably by regions of the country (Fig. 8). The share of those who paid through the cash register of the facilities for inpatient care was 72.6% of the sample of all patients who paid for treatment. But at the same time, more than half of patients who paid for treatment in the hospital did it informally in 38 regions (Fig. 9).

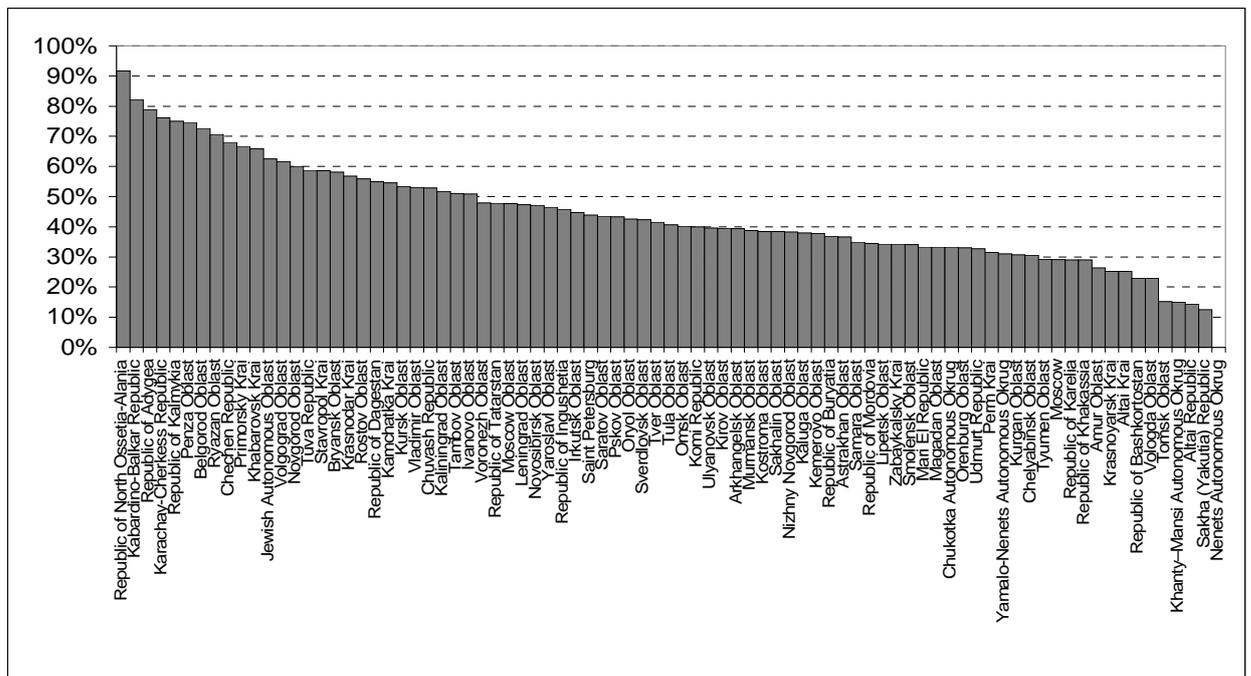


Fig. 8. Share of patients who paid for inpatient care by region, %, 2010
 Source: “Georating” 2010

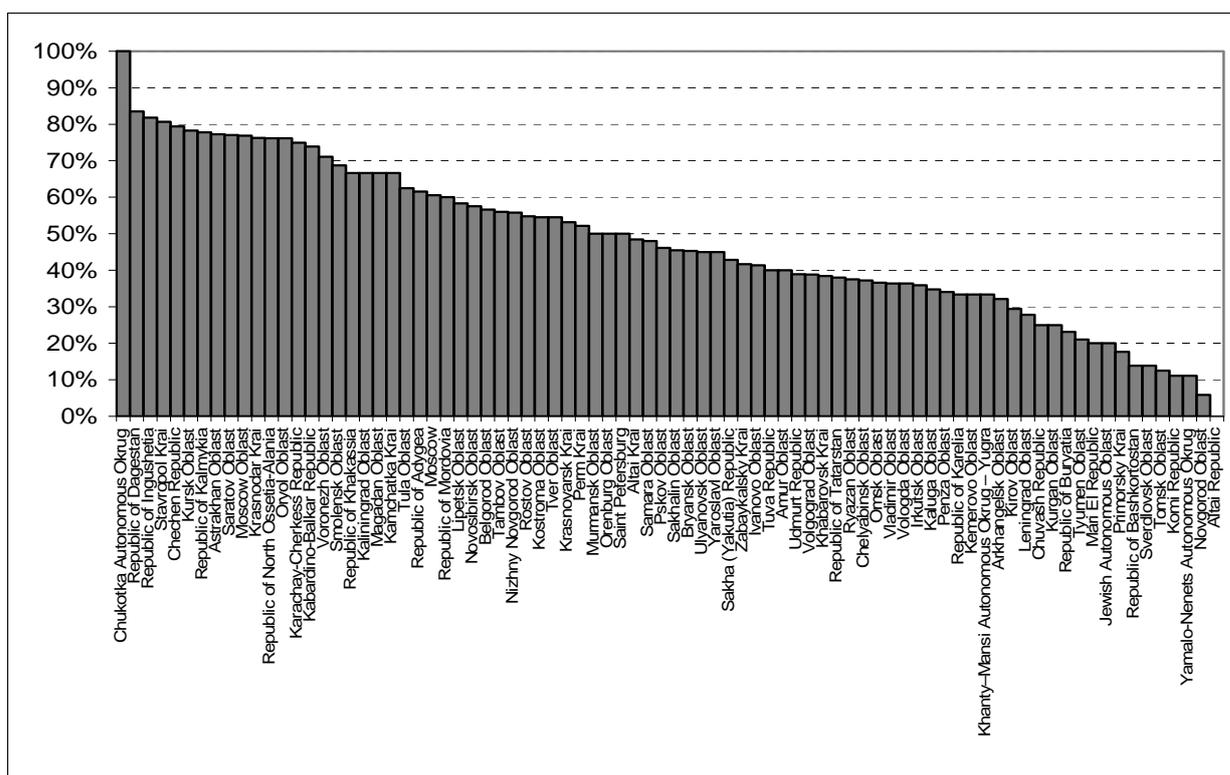


Fig. 9. Share of patients informally paid for inpatient care by region, %, 2010

Source: “Georating” 2010

There is a correlation between the level of economic development of the regions and the informal out-of-pocket payments prevalence when receiving hospital care. As the level of economic development of the region increases, a declining of out-of-pocket informal payments prevalence for hospital care (correlation coefficient of -0.282) is observed.

The correlation analysis revealed an inverse relationship between the level of economic development of the regions and the out-of-pocket payments prevalence for inpatient care: with the growth of per capita gross regional product gross, the prevalence of out-of-pocket payment for hospital care decreases (correlation coefficient of -0.352).

2.5. The dynamics of households forced to refuse medical treatment because of lack of money

Economic accessibility of health care decreased in the 90s as a result of the spread of paid medical services and a reduction of household incomes. According to RLMS data in 2000 the proportion of households who were had to abandon health care due to lack of money was 5.5% for inpatient care, and 6.7% for outpatient care, 11.7% for dental care, and 17,3% for

medicine¹¹. As it can be seen from this data, more often people were forced to reject the types of health care that are not included in the basic package of free health services¹².

A positive trend of increasing economic accessibility to health care was observed in the last decade. The share of patients who refused to obtain necessary medical services and drugs due to lack of money reduced significantly during the period of 2000-2011. In this case, a 2-3 fold reduction in health service rejections was been observed (Fig. 10). In 2011, due to lack of money, 2.2% of the households did not receive outpatient and inpatient care, dental care was not received by 6.4% of the surveyed families, and 6% of households did not buy necessary drugs.

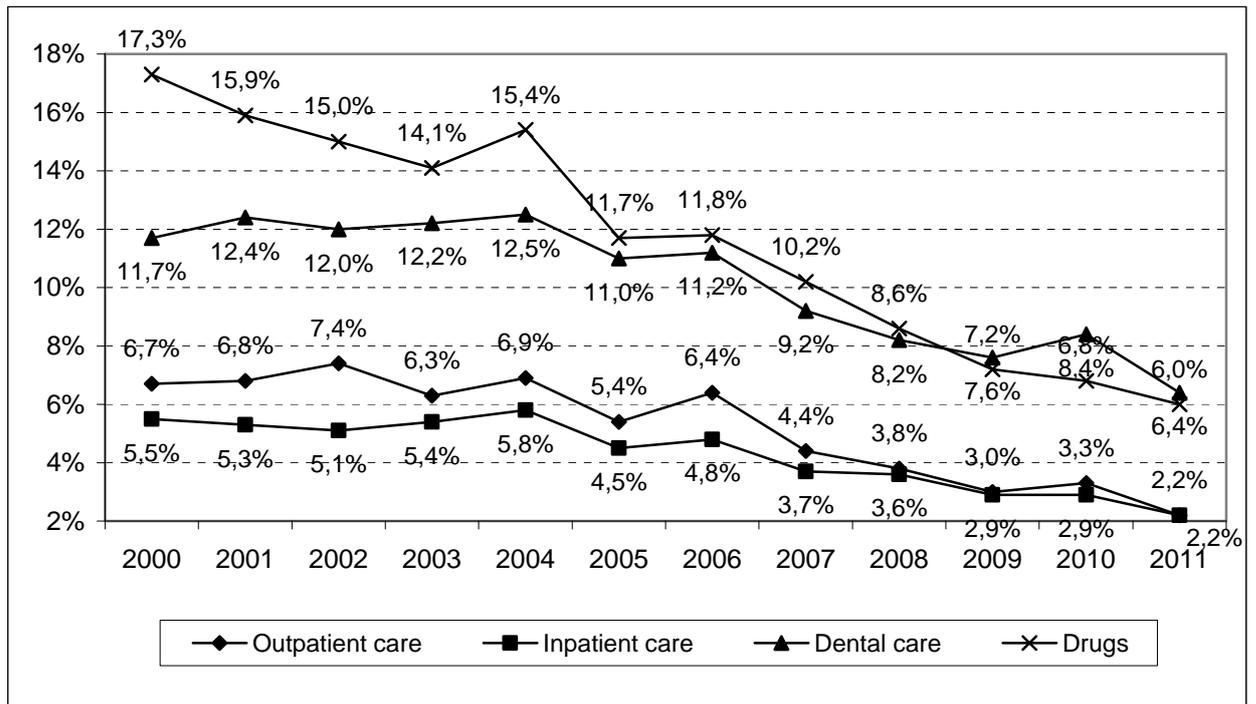


Fig. 10. Share of households whose members could not receive health care due to lack of money 12 months prior to survey, %
Source: RLMS data

3. The factors which make patients pay a fee for medical services

3.1. The type of model assessed

Binary logistic regression was applied to the RLMS data to investigate factors determining the risk of payment for outpatient visits and inpatient care for people who sought

¹¹ The question on economic accessibility of health care by its basic types was introduced in the RLMS questionnaire only from 2000.

¹² The basic package of free-of-charge medical services includes almost all types of health care, except purchases of medicines for outpatient treatment (except for certain groups of the population, to whom medicines are provided free of charge or at a discount). Medicines within the inpatient care are provided to patients free of charge. Dental care is included to a very limited extent.

these medical services and the risk of informal payments for those who paid for these services. For all the risks described the following model was assessed:

$$\text{Ln}\left(\frac{P}{1-P}\right) = b_0 + b_1 * X_1 + \dots + b_i * X_i + \varepsilon ,$$

where $\frac{P}{1-P}$ are odds equal to the ratio of probability of the event to probability of non-occurrence of the event,

b_0 is the constant,

b_i are coefficients of the regression function,

X_i is value of the i-th factor, and

ε is model error, variation in the dependent variable not explained by the model.

Independent variables, the effect of which was tested in the regression analysis were the following:

- health indicators of an individual (self-reported health, presence of chronic diseases, disability group),
- if the individual has a voluntary health insurance policy or not,
- per capita income in individual's household,
- socio-demographic characteristics of the individual (gender, age, education level, marital status, place of residence),
- characteristics of the regional health system (number of beds per 1,000 inhabitants, per capita public spending on health¹³, death rate in the region).

As the number of respondents who paid for outpatient visits and inpatient care is not very large in the sample of the RLMS, data from two rounds (conducted in 2010 and 2011) were used. To eliminate the possible differences in payment and informal payment risks in 2010 and 2011, a dummy variable of the round was included in the regression models. The income of the respondents in 2010 was enlarged to 2011 prices using the consumer price index for goods and services, and public spending on health in 2010 was presented in 2011 prices using the GDP deflator¹⁴.

3.2. Modelling the risk to pay

The model of risk to pay for outpatient visits was tested on the subsample of RLMS respondents who sought these types of medical services within 30 days before the survey. The

¹³ Data from the Reports on the implementation of the program of state guarantees of the Russian Federation citizens free health care in 2010 and 2011: Ministry of Health (2011, 2012)

¹⁴ To deflate the indicators, data from the Federal State Statistics Service were used (http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/accounts/).

number of such people in 2010 and 2011 in total was 5535. 10.8% of them (599 people) reported that they made payments during a recent visit to the health service provider. The strongest predictor of payment for such services is the place of residence (see Table 1). As the size of the locality increases, the odds of payment for outpatient visit grow. In Moscow and St. Petersburg, it is much higher than in other cities and in the countryside. The second most important factor is per capita income in the patient's family: the risk of payments increases for the the quintile groups with higher income. The next predictor in terms of influence force is the state of health: those who value their health as "very bad" are 2.3 times more likely to pay for the outpatient visit than citizens with "not good and not bad" health. And people suffering from chronic diseases are 1.3 times more likely to pay as compared with those who are completely healthy. Having the right to preferential medical care, people with disabilities, by contrast, use paid services almost 2 times less than the rest of the population. According to the results of the regression analysis with the increase of the education level, willingness to pay for outpatient service rises. The odds to pay are also higher for women and people who are married, both formal or informal. Other things being equal, older people are less inclined to pay for treatment than younger patients, which may be associated with the habit of getting free medical care in the Soviet era. According to the analysis, the characteristics of regional health systems have relatively little impact on the probability of payments for outpatient visits. Thus, in regions with a high morbidity rate (high detectability of diseases) where the system is more effective, the population has a lower risk to pay for outpatient care.

Regression coefficient of public health spending is statistically significant, however it equals 0, and the odds ratio is 1. Therefore, change in level of health financing does not lead to change in risk to pay for outpatient visits.

Factors of risk to pay for the inpatient care only partially correspond with predictors of the probability to pay for outpatient care. In both cases, a high probability of payment characterizes people who rate their health as "very bad", patients with chronic diseases and higher level of education. However, unlike the payments for outpatient visits, risk to pay for hospital treatment does not depend on the place of residence, and income of a patient. Lower risk of payment for inpatient care is typical for people with voluntary insurance policies. To a very small extent, lower risk of payment for inpatient treatment is associated with large number of hospital beds in the region where a patient lives. These conclusions were made when testing a regression model on the subsample of 1517 respondents who sought hospital care for 3 months prior to the survey. 29.8% of these people (452 respondents) paid for medical services in a hospital, hospital stay, or medicines.

Determinants of risk to pay for outpatient visits were evaluated previously by regression analysis on the RLMS data of 2004 (IISP, 2007). A regression analysis of the more recent RLMS data (2010-2011) indicates that the overall structure of the factors that define the risk of payment when seeking medical care remains the same. Key factors that increase the risk to pay for medical services are: accommodation in a big city, high per capita income, and high level of education.

However, the difference between the results of the two studies indicates that between 2004 and 2010, there were changes in the reasons to pay in polyclinics. First of all, health status acquired greater importance as a factor of payment. According to RLMS data of 2004, the presence of chronic disease had no effect on the risk to pay for outpatient visit. Data from 2010-2011, in contrast, suggests that chronic diseases, as well as having "very bad" health increase the risk of payment. In data of 2004 there is a weak inverse correlation of risk of payment and public health spending, while data of 2010-2011 indicates that risk to pay for outpatient visits is the same in regions with different levels of funding.

3.3. Modelling the risk to pay informally

A subsample of RLMS respondents who paid for outpatient visits regression model with the odds of informal payment as dependant variable was tested. Among 599 respondents who paid for the visit, 34% (201 respondents) gave money or gifts directly to personnel of a clinic. Regression analysis allowed to identify two factors affecting the risk of informal payments for outpatient visits: place of settlement of a patient and his health condition. Informal payments were more preferred by residents of Moscow and St. Petersburg, as well as large cities (with a population of 300,000 inhabitants or more). And if the desire to pay for the outpatient care is most common for people with poor health, it is people with "good" health who resort more often to informal payments.

A model of informal payments for inpatient care was tested on a subsample of respondents who paid for medical services, hospital stays, or medicines during their treatment in a hospital three months prior to the survey. The size of the subsample was 452, of whom 28.8% (130 people) transferred money directly to the medical personnel of the hospital.

As in the case of outpatient visits, the risk of informal payments for inpatient care is related to the place of residence area where a patient lives. But the increased likelihood of informal payment is characteristic only for the big cities and not for Moscow and St. Petersburg. Unlike outpatient visits, the form of payment for treatment in a hospital is not correlated with the state of health of a patient. Key factors for the risk of informal payments in hospitals are the level

of per capita income in household of a patient, and if he or she has a voluntary health insurance policy.

Regression analysis indicates an increased risk of informal payments for the second and the fourth quintiles by per capita income (compared with the first quintile with the lowest income). It is noteworthy that the voluntary health insurance policy has reduced the risk of hospital payments, but has increased the likelihood that they will be informal if payments are still to take place. Apparently, patients whose treatment expenses are reimbursed by an insurance company believe that absence of any payment from patient to doctor will make the former to be more indifferent to the latters. Having a partner increases the likelihood of informal payments in the hospital if the treatment is not free of charge. And in regions with a high morbidity rate (and as a result, more efficient health care system) the risk of informal payments in the hospital is reduced.

Table 1. Regression analysis results: models of payments and informal payments for outpatient visits and treatment in hospital (significant coefficients – $p < 0.05$)

	Outpatient visit payments odds		Outpatient visit informal payments odds		Inpatient treatment payments odds		Inpatient informal treatment payments odds	
	B	Exp (B)	B	Exp (B)	B	Exp (B)	B	Exp (B)
Gender: female	0.213	1.237						
Age, years	-0.015	0.985						
Marital status: having a partner	0.253	1.288					0.781	2.183
Education level: incomplete high and lower (control group – higher education)	-1.005	0.366						
Education level: full high (control group – higher education)								
Education level: high special and vocational technical (control group – higher education)	-0.362	0.697			-0.329	0.719		
Place of residence: Moscow and St. Petersburg (control group – village)	1.340	3.819	1.347	3.846				
Place of residence: big cities (300,000 people and more; control group – village)	0.500	1.649	0.711	2.036			1.040	2.831
Place of residence: medium-sized and small towns (under 300,000 people; control group – village)	0.464	1.590						
Presence of chronic diseases	0.294	1.341			0.385	1.469		
Disability of any group	-0.530	0.589						
Self-reported health: "very good" (control group – "not bad and not good")								
Self-reported health: "good" (control group – "not bad and not good")			0.743	2.102				

	Outpatient visit payments odds		Outpatient visit informal payments odds		Inpatient treatment payments odds		Inpatient informal treatment payments odds	
	B	Exp (B)	B	Exp (B)	B	Exp (B)	B	Exp (B)
Self-reported health: "bad" (control group – "not bad and not good")								
Self-reported health: "very bad" (control group – "not bad and not good")	0.821	2.272			0.731	2.077		
Per capita income: 2 quintile (control group – 1 quintile)							0.850	2.340
Per capita income: 3 quintile (control group – 1 quintile)	0.358	1.430						
Per capita income: 4 quintile (control group – 1 quintile)	0.590	1.805					0.924	2.520
Per capita income: 5 quintile (control group – 1 quintile)	0.904	2.470						
Voluntary health insurance policy					-0.812	0.444	1.957	7.079
Number of hospital beds per 1000 inhabitants					-0.013	0.987		
Morbidity (diseases per 100 000 inhabitants)	-0.001	0.999					-0.005	0.995
Per capita public health funding, rubles (adjusted by the difference in prices on budget services in different regions)	0.000	1.000						
Round: 2010 compared with 2011	0.326	1.385						
Constant	-0.733	0.481	0.767	2.154	0.425	1.530	3.121	22.662
Subsample to test the model (N of respondents)		5535		599		1517		452
Percent of correctly predicted cases		89.1%		68.2%		70.9%		76.5%
Log-likelihood		3458.977		699.262		1767.872		445.081

4. Estimation of out-of-pocket health expenditures

4.1. Out-of-pocket health expenditures in 2005-2010

In contrast to the characteristics of the out-of-pocket medical payment prevalence, RLMS data make it impossible to trace annual changes of household expenditures on health care in as much detail as on the types of care and forms of payment. The available data make it possible only starting from 2000. In the current study, the out-of-pocket health expenditures in 2005 and 2010 are compared. Choice of the initial year is because since 2005, public expenditure on health care has increased significantly compared to previous years: from 2005 to 2007 it increased by 50% in real terms, and later from 2008-2010 it was stabilized at this level (Shishkin, 2013). In

2011, as already noted, the RLMS sampling underwent some changes, and, therefore it is more correct to consider the final time period of 2010 for the purposes of analyzing the dynamics of expenditures. Estimation of the out-of-pocket health expenditures was carried out in terms of monthly per capita out-of-pocket health expenditures.

A comparison of out-of-pocket health expenditures in 2005 and 2010 was made for the basic types of health care: outpatient and inpatient and drugs for outpatient treatment¹⁵. Out-of-pocket payment for last outpatient visit and payment for diagnostic tests and medical procedures provided in this case were taken as outpatient care expenditures. Expenditures for drugs is represented by the purchase of medicines by the sample for the home treatment one month prior to the survey. Inpatient care expenditure includes out-of-pocket payment per one month on medical services and medicines for treatment in a hospital. Let us emphasize that RLMS data on outpatient care expenditure characterize only the cost of the last visit of a patient during a month, and do not allow a correct estimate of such expenditure per month to compare it with the cost of other types of care during this time period. Therefore, the comparison of treatment expenditures in 2005 and 2010 was carried out for each type of health care separately. The expenditure dynamic was estimated in comparable prices: expenditure of 2010 was calculated in the prices of 2005¹⁶. During the reviewed period, outpatient care expenditure in real terms increased by 77% (from 32.5 rubles to 57.4 rubles per 1 person in comparable prices). The population started to spend 3 times more on drugs for treatment at home: if in 2005, per one Russian it was 85.5 rubles per month, by 2010, this figure rose to 268.7 rubles in prices of 2005. Inpatient care expenditure in the period under review, in contrast, decreased by 36%, from 19.8 rubles to 12.7 rubles.

Reduction of out-of-pocket payment for inpatient care can be accounted to a decline of expenditure on inpatient services rather than because of a reduction in costs of purchasing drugs for hospital treatment. In 2005-2010 per capita expenditure on inpatient treatment decreased by 64% (from 19.1 rubles to 6.9 rubles) and per capita spending on pharmaceuticals for the treatment in a hospital by 25% (from 7.7 rubles to 5.8 rubles). Apparently, these dynamics indicate an increase in the accessibility of free inpatient care in the period under review.

For each of the reviewed types of health care, the estimation of per capita expenditures was carried out by different socio-economic groups of the population (which differ by income level, age, place of residence) and by forms of payment (formal and informal).

¹⁵ Segregation of drug provision for outpatient treatment in a separate category is due to the fact that this type of care, in contrast to other major types of medical care is not included in the package of free health care (except for certain population groups for whom the medicines are provided for free or at a discount).

¹⁶ The costs of outpatient and inpatient care in 2010 were adjusted to prices of 2005 using the indices of growth in retail prices for medical services, and the costs of drug provision - respectively the index of growth of retail drug prices.

The population of retirement age, in per capita terms, spends more on inpatient care and drug provision under outpatient care than citizens of working age and children (Fig. 11).

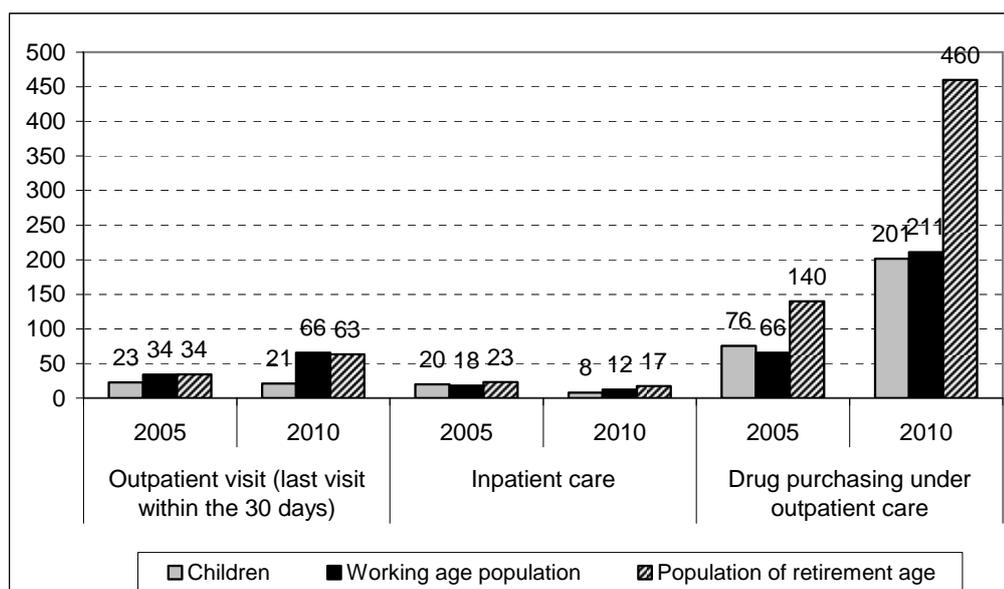


Fig. 11. Per capita out-of-pocket expenditures by type of health care and by age groups, 2005 and 2010, in constant 2005 prices, rub. per month

Source: RLMS data

From 2005-2010 the growth of expenses on drugs was the most intense for the elderly. It can be explained by the fact that according to RLMS data, per capita income in households with persons of retirement age grew faster during this period than per capita income in households with people of working age and in families with children (an increase in real terms by 1.5, 1.22 and 1.21 times, respectively). Throughout the reviewed period, among the population who live in different types of settlements, the inhabitants of big cities had the highest per capita out-of-pocket expenditures on health care. In the beginning of the period, as well as at the end a consistent pattern a reduction of per capita out-of-pocket expenditure was observed along with the reduction in population size of settlements (Fig. 12). Rapid growth of out-of-pocket expenditures in Moscow and St. Petersburg for outpatient and inpatient care also stands out. In the other settlements out-of-pocket expenditure on treatment in hospitals declined. This dynamic can be explained as follows: accessibility of free but low quality inpatient care increases for people living outside the metropolitan, areas and the meanwhile the residents of metropolitan areas impose a higher demand for inpatient services of higher quality compared with quality of free ones.

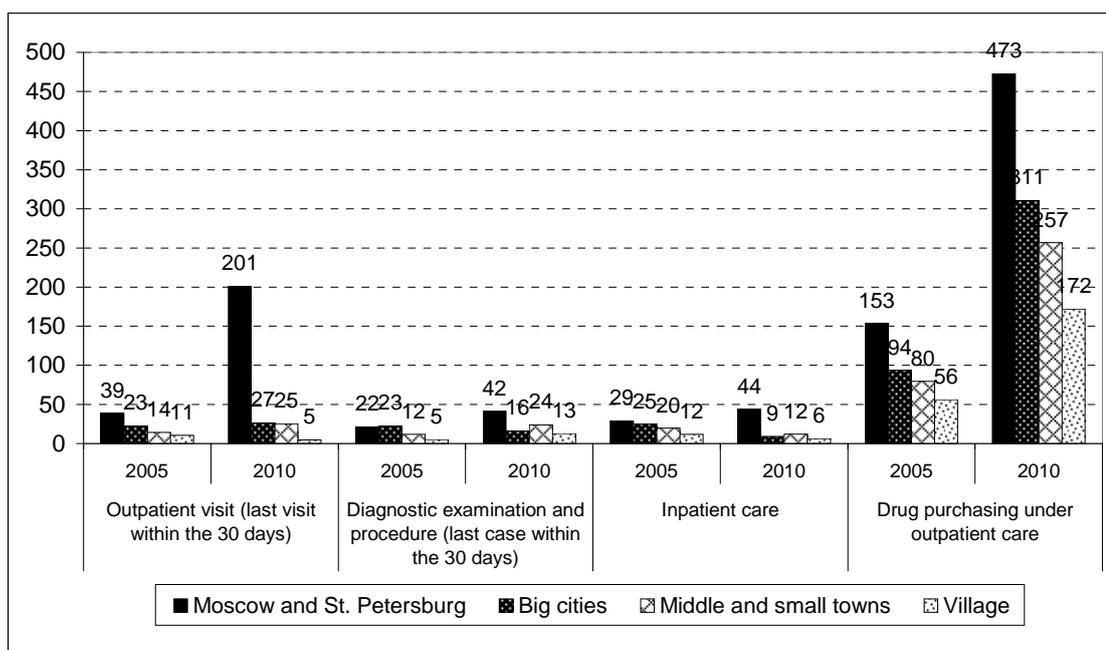


Fig.12. Per capita out-of-pocket expenditures by type of health care and type of settlement¹⁷, 2005 and 2010, rub. per month (in constant 2005 prices)

Source: RLMS data

The reduction of out-of-pocket expenditure in 2005-2010 was found also for residents of big cities when they paid for outpatient diagnostic services: the out-of-pocket payments reduced by 30% in real terms (Fig. 16). Meanwhile the expenditures of residents of all other types of settlements increased. These data indicate that the availability of free outpatient diagnostic services increased for residents of large cities. As it is known, the implementation of the national priority project “Health” since 2006 significantly improved the supply of the outpatient facilities with modern diagnostic medical equipment. Our findings are evidence that the funds allocated by the state for this purpose, in fact, have increased the accessibility of free high-quality outpatient care, but the main beneficiaries of this policy have been the inhabitants of large cities.

Both in 2005 and 2010 a correlation of the population expenditures on the various types of health care with the size of their income was observed (Fig. 13): the wealthiest (fifth quintile) spent several times more than the poorest (first quintile) on treatment. However, from 2005-2010, the ratio of their expenditure on outpatient care reduced from 17 to 9 times, and expenditure on drugs decreased from 4 to 2 times. Thus, the growth in private expenditure on outpatient care for the poor was higher than that of the wealthy.

¹⁷ Big cities are considered cities with a population of 300,000 and more. Middle and small towns are towns with a population of less than 300,000 people.

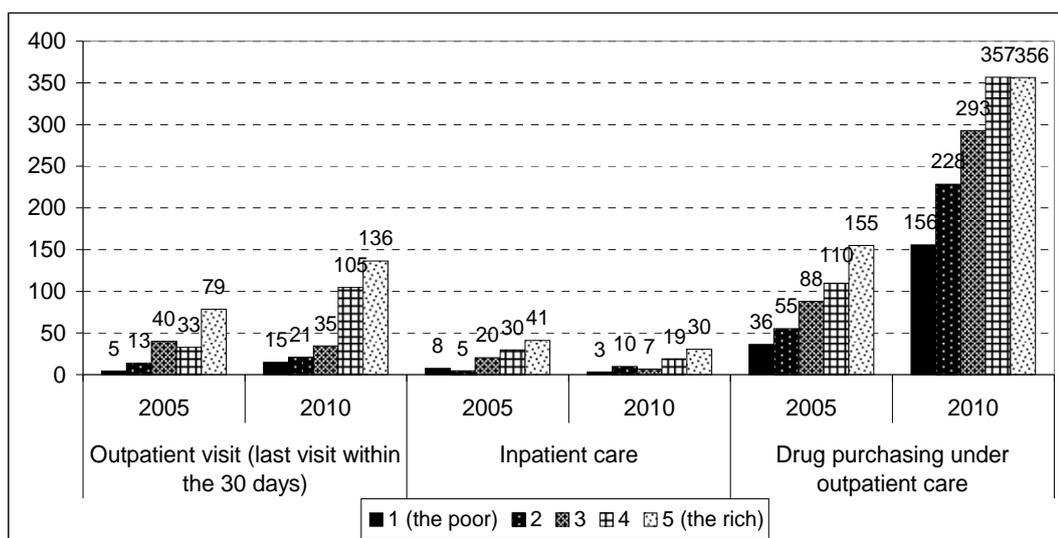


Fig. 13. Per capita out-of-pocket expenditure by type of health care and income quintile group, 2005 and 2010, rub. per month (in constant 2005 prices)

Source: RLMS data, HSE

Increased access to free inpatient care made it possible for rich and poor segments of the population to spend less on inpatient care. The poor get more benefits from this, expenditure of the poor was reduced to a greater extent than that of the rich. In 2005, the wealthiest spent on this type of care 5 times more than the poorest, and by 2010 this ratio increased to 9 in comparable prices.

Throughout the period under review, most out-of-pocket payments were made as formal ones for care provided in both outpatient and inpatient sectors. For example, when receiving outpatient care in 2005, the amount of out-of-pocket payment “over the counter” exceeded the under-the-table payment by 2.8 times. By 2010 it had already increased by 4.3 times. A similar tendency was also observed in the hospital sector, where the corresponding ratio was respectively 2.0 and 2.5 times. During the reviewed period, out-of-pocket formal payments for outpatient care increased faster than informal payment. In contrast, under-the-table payments in hospitals decreased more significantly than formal out-of-pocket payment for inpatient care (Fig. 14).

Data on the dynamics of formal and informal expenditure for outpatient care support the conclusion made previously that increasing legalization of out-of-pocket payments took place. As for hospital care payments, changes in the prevalence of informal out-of-pocket payment and in the proportion of informal and formal payments were directed oppositely: patients were more frequently paying informally, but the size of an informal payment per patient in comparable terms decreased to a greater extent than the amount of out-of-pocket payment “through cash office”.

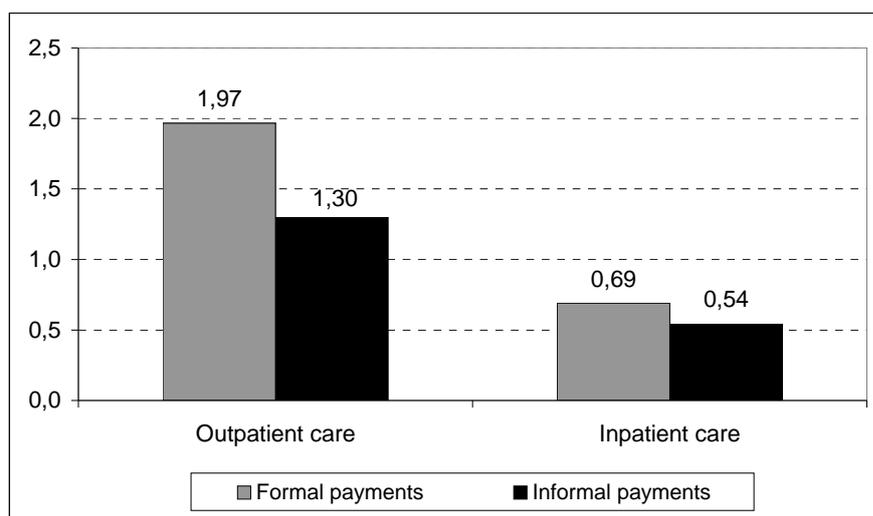


Fig. 14. Per capita out-of-pocket health expenditure growth 2010-2005 (in constant 2005 prices)

Source: RLMS data

4.2. Out-of-pocket health expenditure pattern

In 2011 RLMS data, as already noted, are somewhat biased comparing with data from previous years because of changes in the sample. But the 2011t RLMS data allow us to receive the most complete and detailed characteristics of the out-of-pocket health expenditure pattern because the 2011 RLMS questionnaire was completed by questions, reflecting the expenditures on ambulance service, dental care, and voluntary health insurance that have not been previously considered in RLMS.

RLMS data of 2011 allow us to estimate out-of-pocket health care expenditure per month at current prices on different types of care (outpatient care except dental care, inpatient care, dental care including dental prosthetic, ambulance services, purchasing drugs for outpatient treatment) made by socio-economic groups of the population, which differ by income level, age, and place of residence.

According to the survey, per capita out-of-pocket health expenditure in 2011 amounted to 628 rubles (\$19.5 USD) per month. Health expenditure patterns by types of health care as an average per respondent are presented in Fig. 15.

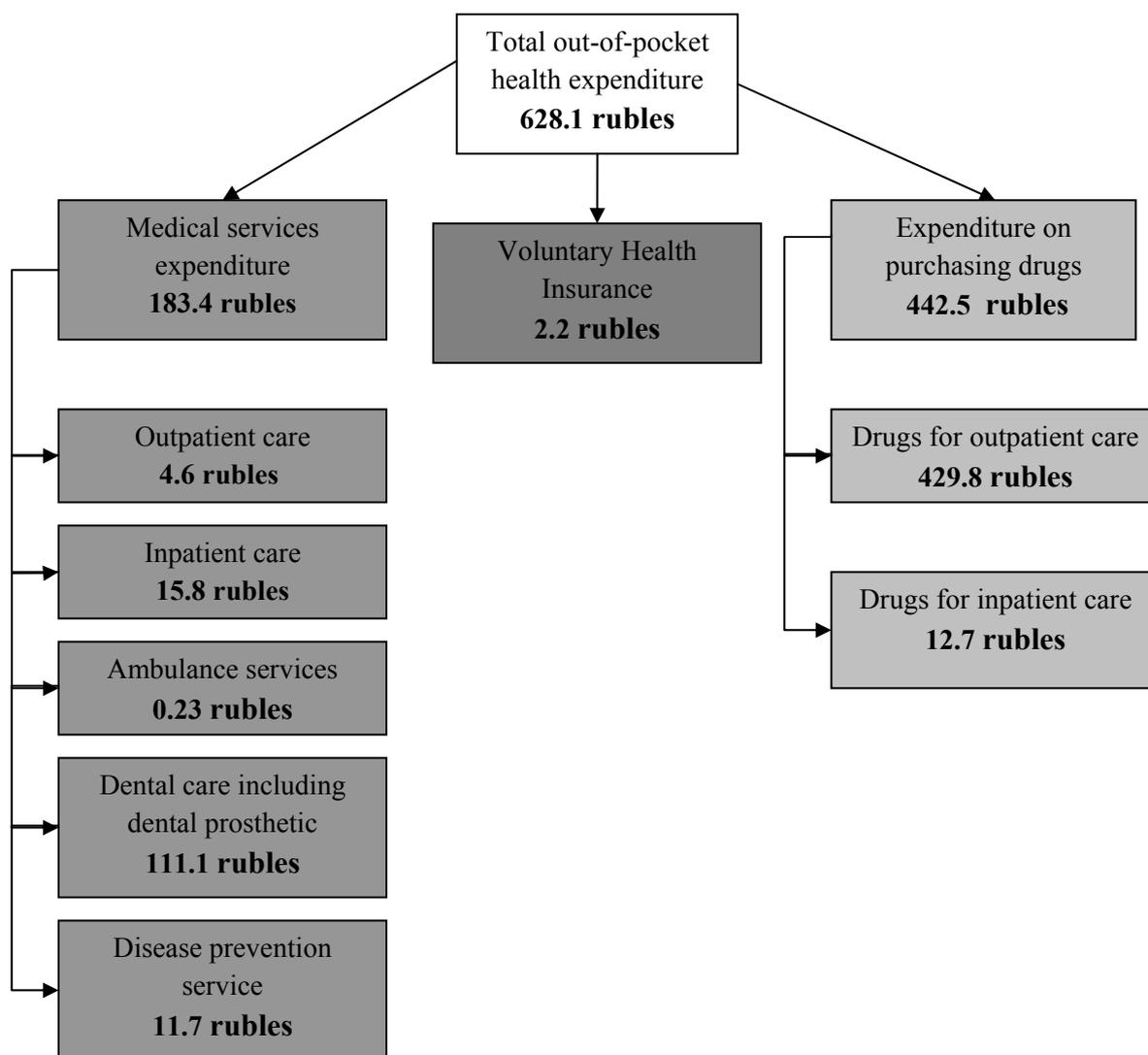


Fig. 15. Out-of-pocket health expenditure pattern 2011, rub. per capita per month

Source: RLMS data

The major part of expenditure accounts was for the purchase of pharmaceuticals (70%). Slightly less than a fifth of the out-of-pocket payments were for dental care and less than 10% were for payments related to outpatient care. The lowest share of per capita out-of-pocket health care expenditures were the costs for purchasing voluntary medical insurance policy.

Obtained data indicate the distinct patterns of change in per capita out-of-pocket health expenditure for population groups that differ in age, income, and place of residence. Thus, the health care expenditure for children is 394.4 rubles per month, for people of working age, 536.1 rubles, and for people of retirement age, 1008.2 rubles¹⁸ (Fig. 16).

¹⁸ Children 0-16 years old, working age population – 16-60 years old for male, 16-55 years old for female; population of pension age – male – 60+ years old, female – 55+ years old.

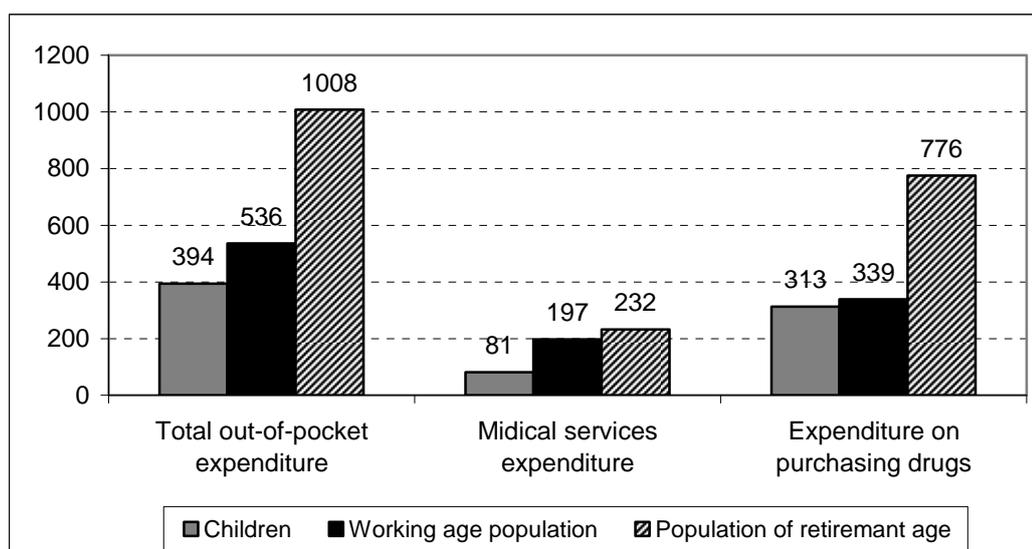


Fig. 16. Average per capita out-of-pocket health care expenditures by age group 2011, rub. per month

Source: RLMS data

Per capita health care expenditure increases as household per capita income rises. In the first quintile group (the lowest income) per capita health care expenditure amounted to 251.0 rubles per month; in the second, 506.3 rubles; in the third, 566.3 rubles; in the fourth, 735.3 rubles; and in the fifth, the wealthiest group, 1,238.8 rubles.

Out-of-pocket health expenditures reduced correspondingly to the population size of a settlement. Residents of metropolitan areas (Moscow and St. Petersburg) spent a monthly average of 1,187.6 rubles, residents of large cities, 771.7 rubles, medium and small towns, 552.4 rubles, and in rural areas, 367.4 rubles.

Nearly four-fifths (78%) of household out-of-pocket health expenditure on outpatient, dental and inpatient care (excluding the cost of medicines for outpatient treatment) is done formally – “to the cash office” of medical facilities, and 22 % under-the-table, “in the hands” of medical professionals.

The ratio of formal and informal out-of-pocket payments for different types of care - outpatient, inpatient and dental - is about the same, 77-79%. For ambulance medical services, the payments were not separated into formal and informal ones in the 2011 questionnaire. All of them were estimated as informal, because there is no provision of legal paid services by public ambulances, and the volume of services provided by private ambulances is very small.

In order to compare different population groups according to their preference for informal payments, the following index was calculated: the share of informal payments in the total amount of per capita expenditure by types of health care. Differences in the value of this index

for different age groups are significant, but there are no similar trends for all types of health care (Fig. 17).

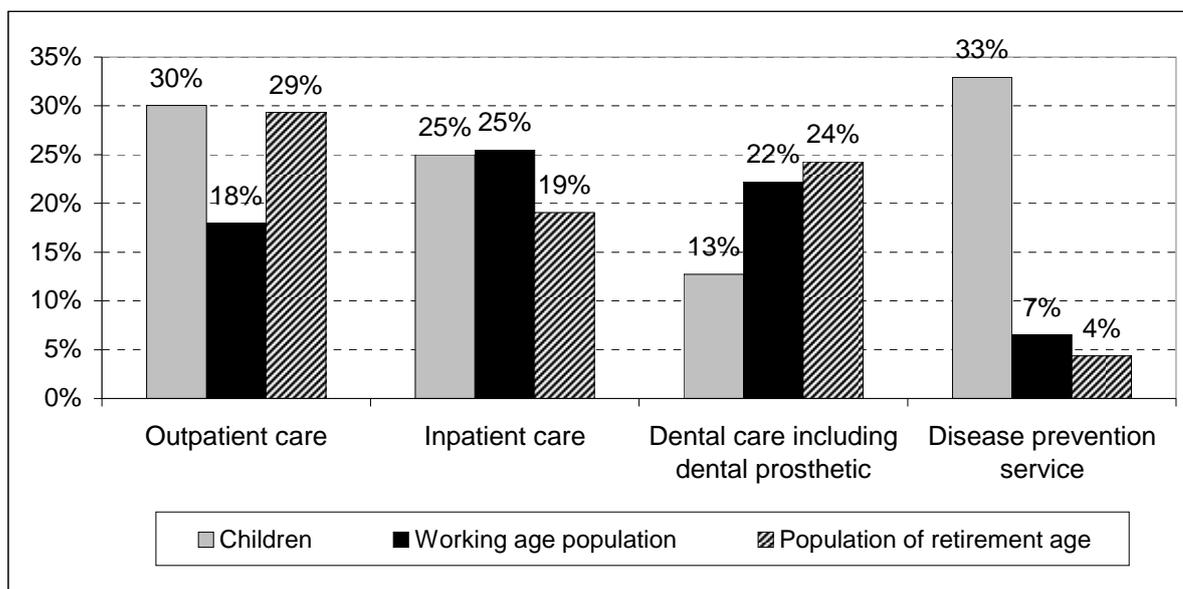


Fig. 17. Share of informal payments in total out-of-pocket expenditures by type of health care and age group of population 2011, %

Source: RLMS data, HSE

Hence, outpatients of working age prefer formal payments, and in population groups younger and older than working age, most payments are under-the-table. The share of informal payments in hospitals is minimal among the retirement age population, while the younger population tends to make the major part of their payments informally. When using the services of dentists, patients of older age are more prone to make payments under the table, which is probably due to the fact that services for dental prosthetics are paid more often informally. When paying for preventive care, e.g. parents of patients, their children are more inclined to make payments directly to health care workers.

The share of informal payments in a total expenditure is highest for citizens of Moscow and St. Petersburg (Fig. 18). Compared to residents of other cities, inhabitants of villages make a considerable part of their payments for outpatient and dental care under-the-table.

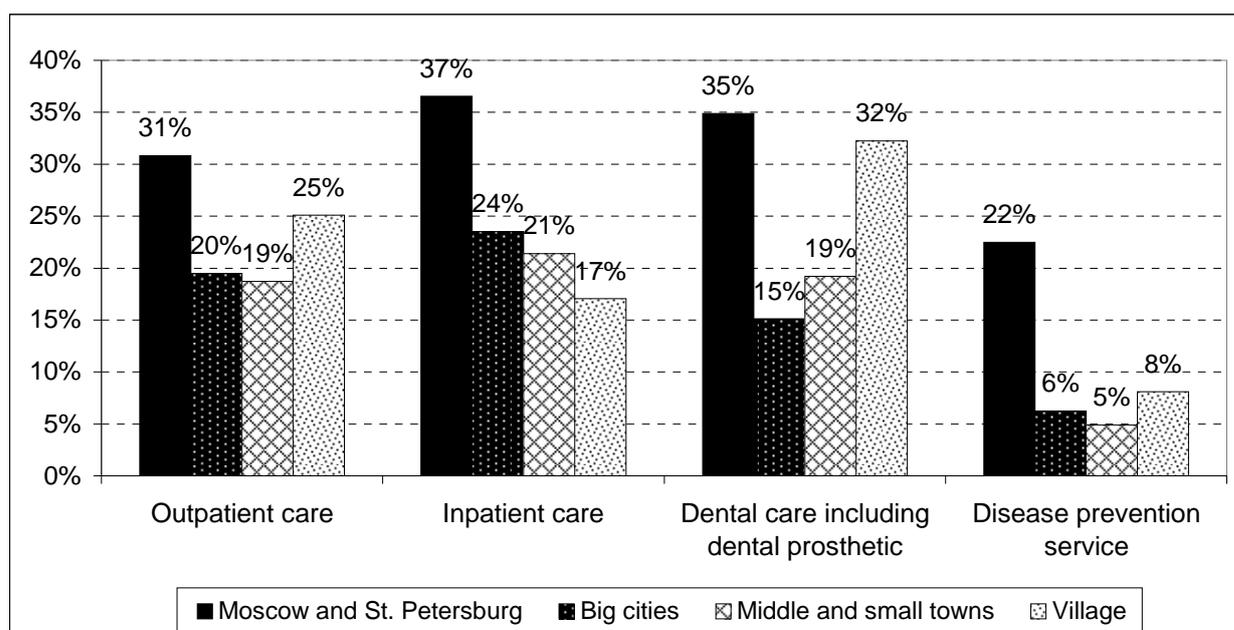


Fig. 18. Share of informal payments in total out-of-pocket expenditures by type of health care and place of residence 2011, %

Source: RLMS data

The larger volume of payments to employees of ambulance service distinguishes patients of older than working age, as well as residents of Moscow and St. Petersburg. Payment to ambulance employees per one representative of the older than working age group accounts for 0.42 rubles per month, while per citizen of working age it accounts for 0.19 rubles, and per child - 0.06 rubles. The value of this indicator amounted to 1.29 ruble for Moscow and St. Petersburg, 0.26 rubles for big cities, 0.06 rubles for medium and small towns and virtually zero value for residents of villages.

5. Public and household expenditure on various types of health care

Obtained estimates of out-of-pocket health expenditure allow us to assess household payments in the total cost of various types of health care. To solve this issue, the share of formal payment in a total amount of formal payments by the respondents for various types of health care was calculated. Informal payment was estimated with regard to the total amount of formal health expenditure of the respondents. Then, using these structural characteristics and the Federal State Statistics Service data on household expenditure on paid medical services¹⁹, estimates of total out-of-pocket payments, including formal and informal, were calculated for various types of health care.

¹⁹ This value (211.2 billion rubles) was calculated by subtracting the payments for voluntary health insurance (74.9 billion rubles) from the amount of paid medical services in 2011 (286.1 billion rubles.), which takes into account the payment of medical services by both the population and legal entities.

The resulting estimate of out-of-pocket expenditure on outpatient care (including the payment for physician consultations, diagnostic tests, medical procedures and manipulations, dentist services, including prosthetic dentistry, as well as visits to health care providers for the purpose of disease prevention) includes both formal and informal payments (in money terms and in the form of gift costs). Expenditure on inpatient care encompasses both formal and informal payments for medical treatment, hospital stay, the cost of medicines, and bandaging materials for hospital treatment. The total amount of out-of-pocket expenditure on purchasing of medicines for hospital treatment was obtained based on the Federal State Statistics Service data on the volume of retail sales of drugs and medical products, and respondents' estimates of expenditures on medicines for hospital treatment, according to RLMS data, and calculated as a share of the total formal payment for drugs.

Out-of-pocket payment for drugs for outpatient treatment was calculated as the difference between the Federal State Statistics Service data on the retail sale of drugs and medical products, and the resulting estimate of out-of-pocket expenditure on purchasing drugs for inpatient treatment.

Based on RLMS data, the ratio of household voluntary health insurance expenditures to their total formal out-of-pocket payments on various types of health care were calculated. Aggregated population expenditure on voluntary health insurance was calculated by multiplying this figure by the amount of out-of-pocket health expenditure. Expenditure by legal entities for the same purpose was obtained as the difference between the data of the Federal State Statistics Service on the amount of contributions for voluntary health insurance and obtained estimates of related expenses of households.

The indicators of public health care expenditure structure are calculated based on the data of the Ministry of Finance, Ministry of Health, and the Russian Federal State Statistics Service, . It should be noted that, according to the data, nearly half of public health care funding in 2011 was not spent directly on providing health care. These are investment costs toward the implementation of the national project “Health”, regional health care modernization programs, and other types of expenditures. Some of these could probably be attributed to the costs of providing certain types of health care, but there is no information about it.

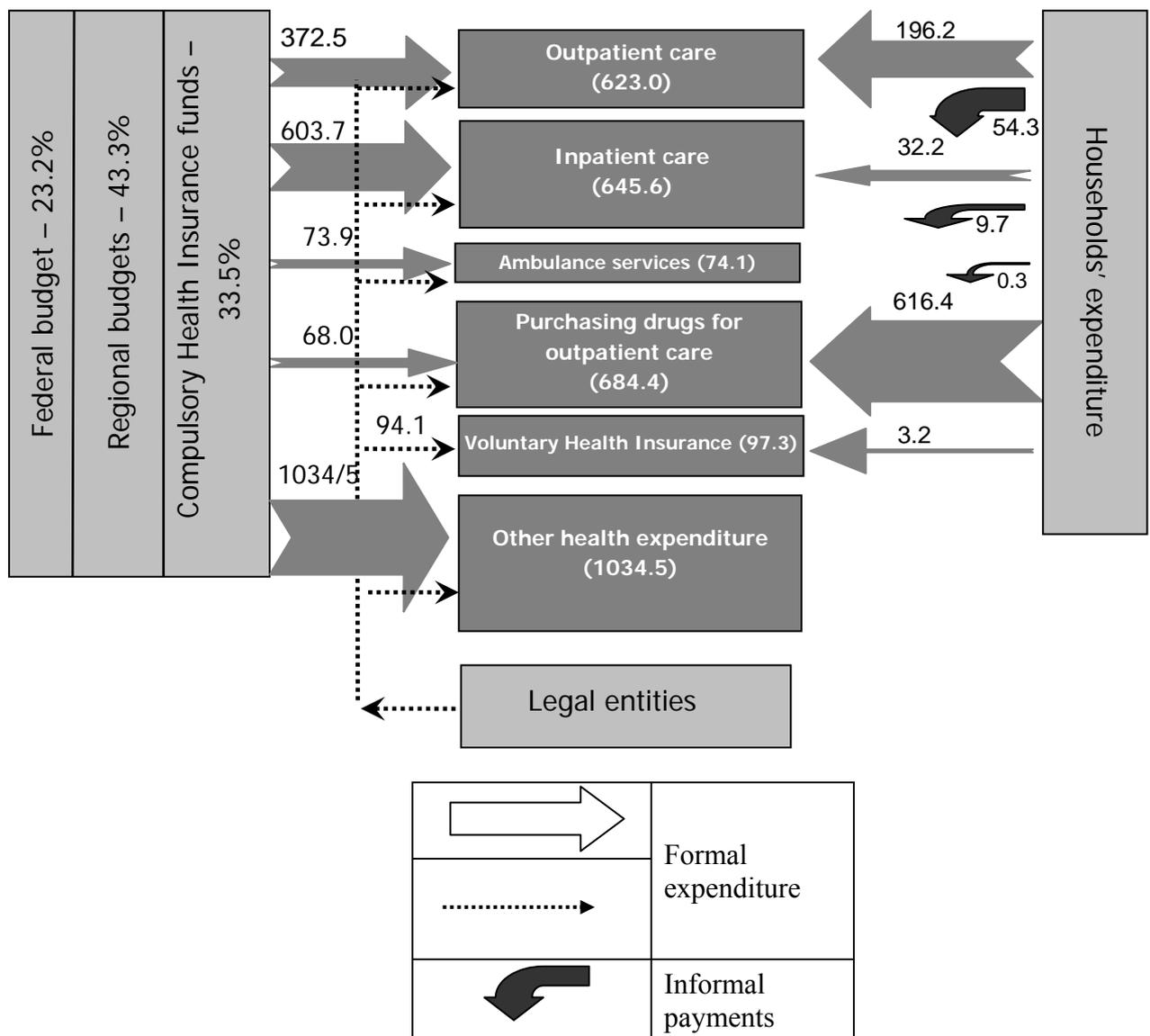


Fig. 19. Health expenditure: contribution of the state and population 2011, billion rub.

Source: total public health expenditures – data of the Ministry of Finance and the Russian Federal State Statistics Service; public health expenditures by type of health care – data of the Ministry of Health (2012); out-of-pocket payments – author’s estimations based on RLMS and the Russian Federal State Statistics Service data.

Obtained estimates are presented in Fig. 19. It should be noted that, to our knowledge, this is the first time estimates of the total health care expenditure structure have been obtained in such detail for Russia.

These data suggest that the expenditure of households on outpatient medical services are comparable to the public expenditure on this type of care: the share of household spending reaches 40%. In the hospital sector the situation is different: public spending dominates, and the share of household expenditure accounts for only 6.5%. The inpatient care has a higher priority compared to outpatient when discussing the allocation of public resources: the ratio of government expenditure on outpatient and inpatient care is 38:62, while in Western European

countries they are approximately equal. Obviously, that out-of-pocket payment acts as an alignment to imbalances in public financing of health care: the ratio of total (public and household) expenditure on outpatient and inpatient care is already 49:51.

Legal out-of-pocket payment for health care generally prevails over informal in terms of money. The total amount of informal payments is 30% of the formal out-of-pocket expenditures for chargeable medical services.

6. Conclusions

The results of the conducted research indicate that the prevalence of out-of-pocket payments for health care in the post-Semashko health care system continues to grow after the transition crisis, despite a significant increase in public spending on health in the post-transition period. Thus, the share of patients who paid for outpatient care was 4.4% in 1994, reached 9.0% in 2000, and increased up to 15% in 2012.

The expenditure on drug provision for outpatient care increased by 3.1 times at comparable prices. This is the type of health care is not included in the package of free health care. Along with expenditure on dental care, which is included in the basic package to a limited extent, the expenditure on these two types of care accounted for more than 85% of the total volume of household health expenditure. The out-of-pocket payment for outpatient care (except dental care) grew by 1.8 times

However, the dynamics of the prevalence of out-of-pocket payment for certain types of health care show that these practices will certainly react to changes in the public health funding and resource provision of free medical care. Thus, the share of patients purchasing drugs for inpatient treatment (that should be provided for free) was 52.8% in 2000, but by 2012 was reduced to 18.3%. The per capita out-of-pocket expenditure on inpatient care decreased by 1.6 times from 2005-2010. Obviously, this is due to the growth of public spending on health in the 2000s, by which hospitals drug provision had been greatly improved, and the need to buy drugs by patients themselves weakened. Since 2006 the share of patients paid for out-patient tests and procedures has been reduced, which is obviously the result of increased access to free outpatient medical services due to significant public investment in the new diagnostic equipment for medical facilities, which were made in the framework of the national project "Health" (2006 - 2013).

It is also interesting to note a 30% reduction of the out-of-pocket payments of large city residents (except for Moscow and St. Petersburg) for outpatient diagnostic services. It is obvious that they have been the main beneficiaries of public investment in equipment of medical facilities by new diagnostic tools.

Despite the growth in public spending on health care, household expenditure continues to play the role of the compensator of public health funding failures. Out-of-pocket payments act as an alignment of imbalances in public financing of health care: while the ratio of government expenditure on outpatient and inpatient care was 38:62 in 2011, the ratio of total (public and household) expenditure was 49:51.

Rising payments of small towns and villages residents on the diagnostic tests in 2005-2010 compared with the reduction of such expenditure among residents of large cities shows that the increase of accessibility of this type of care due to large state investments in equipment of health facilities proved unequal to residents of different types of settlements.

Despite the fact that a part of medical services is provided for fee the affordability of health care is rising: there is an evident trend of decline in the share of citizens who were forced to abandon the care they needed because of lack of money.

The main factor in the growth of household spending on health care is no longer a lack of public funding, but household income growth. This is evidenced by the regression analysis results looking at the factors that make patients pay for medical services. The probability of obtaining services for a fee is higher for citizens with higher incomes and those living in cities with larger populations. And the size of per capita public spending on health in the regions does not affect the probability of out-of-pocket payment for health care.

The extension of out-of-pocket payment practices in the post-Semashko Russian health care system is a reflection in the growth of effective demand for quality medical services other than those provided for free.

There have been changes in the prevalence of the two main institutional forms of payment for different types of medical services: legal payment in cash and informal payments in the hands of health care workers. The proportion of prevalence of formal and informal practices of payment for health care varies greatly by region. But in the whole country, there is a tendency towards legalizing payments for outpatient care. And vice versa. the proportion of legally paying for services of medical personnel in hospitals reduces.

The legalizing payments for outpatient care is likely to reflect an increase of technical equipment of outpatient facilities, and related growth of opportunities to separate paid medical services from free ones. The relationship between the prevalence of legal payments for outpatient care and the level of economic development of regions is shown: the higher the level of economic development (measured by per capita GRP), the more patients pay for outpatient care officially. Therefore the legalization process of payment for outpatient care is faster in the more economically developed regions. This trend corresponds with the trend of increasing the share of payments in legal form for outpatient services in the whole country in the last decade.

Thus, economic development creates conditions for the legalization of payment for outpatient care.

The reducing the share of legally paying for inpatient care can reflect the gap between the real price of labor of hospital staff and their wage. Skill level of doctors and nurses in the hospital sector is generally higher than those working in the ambulatory sector, and accordingly the salaries are higher. This is confirmed by the results of the study of motivation of health workers (Shishkin, 2008).

At the same time, many regional authorities pursue a policy of prohibition or deterrence capabilities to provide chargeable services in hospitals. This is done under the banner of providing free inpatient care. In addition, it is much more difficult to separate paid services from a set of services delivered to patients in public hospitals. All of this makes informal payment in hospitals more convenient for everyone: patients, health professionals, and officials who have demonstrated their concern that the paid services are not replacing free health care.

The revealed trends of out-of-pocket payments prevalence prove the conclusion that the government should pursue different policies for different functions performed by the development of these practices.

- The participation of citizens in health care funding due to public health financing failures must reduce as a result of consistent implementation of the policy to ensure access to free medical care. Relevant objectives of this policy are: The increase of access to free specialized medical care (first of all diagnostic tests) primarily for residents of medium and small cities and rural areas. This can be achieved by the enforcement of control over compliance with the orders of medical care for diseases, development of electronic systems appointment, etc.;
- Reviewing funding priorities of different types of health care, implementation of structural reforms in the health care system, and increase of public expenditure on outpatient care;
- Consistent implementation of the policy of strict linkage of health professionals wage increase with the qualification and the results of the work. This should provide an approximation of wages to market labor price and thereby to weaken the preconditions for charging patients with informal payments.

The practices of payment for health care, reflecting the increase in effective demand for better health services, by contrast, do not require containment, but creating institutional conditions for their effective development in combination with state-funded health care.

References

Aleksunin V.A., Mitkov S.A. (2006). Social aspects of paid medical services (Socialnye aspekty platnyh meditskih uslug). *Sociological research*, 5, 72-75.

Besstremyannaya G.E., Shishkin S.V. (2005). Accessibility of medical care (Dostupnost' meditsnskoj pomoshchi). In *Income and social services: inequality, vulnerability, poverty*. Ovcharova L.N. ed., Independent Institute of Social Policy, Moscow. (<http://www.socpol.ru/eng/publications/index.shtml>)

Ensor T. (2004). Informal Payments for Health Care in Transition Economies. *Social Science & Medicine*, 58 (2), 237-246.

Gaal P, Belli PC, McKee M, Szocska M. (2006). Informal payments for health care: definitions, distinctions, and dilemmas. *Journal of Health Politics, Policy and Law*, 31 (2), 251-293.

Gaal P., Jakab M., S.Shishkin (2010). Strategies to address informal payments for health care. In *Reforms and Challenges Implementing health financing reforms: Lessons from and for countries in transition*. Buckingham: Open University Press.

Gotsadze G., Gaál P. (2010). Coverage decisions: benefit entitlements and patient cost sharing. In *Implementing health financing reforms: Lessons from and for countries in transition*. Buckingham: Open University Press.

HFA-DB (European Health for All Data Base). Updated: July 2013. <http://www.euro.who.int/en/data-and-evidence/databases/european-health-for-all-database-hfa-db>

HSE (Higher School of Economics) (2010). Results of the All-Russian sociological survey "Georating" (Civil society).

IISP (Independent Institute of Social Policy) Evidence about Equity in the Russian Health Care System. The report prepared in accordance with the Bilateral Cooperative Agreement between the Russian Federation and the World Health Organization for 2006-2007 / S.V.Shishkin (red.), N.V.Bondarenko, A.Ya. Burdyak et al. Independent institute for social policy. 2007. (http://www.socpol.ru/eng/research_projects/pdf/proj25_report_eng.pdf)

Lekhan V, Rudy V, Richardson E. (2010). Ukraine: Health system review. *Health Systems in Transition*, 2010. 12(8), 1–183.

Ministry of Health of the Russian Federation

(2011). Report on realization of the Program of state guarantees of free health care for the Russian citizens in 2010 (Doklad o realizatsii Programmy gosudarstvennyh garantii okazaniya grazhdanam Rossiiskoy Federatsii besplatnoy meditsnskoj pomoshchi v 2010 godu).

(2012). Report on realization of the Program of state guarantees of free health care for the Russian citizens in 2011 (Doklad o realizatsii Programmy gosudarstvennyh garantii okazaniya grazhdanam Rossiiskoy Federatsii besplatnoy meditsnskoj pomoshchi v 2011 godu). Moscow.

<https://www.rosminzdrav.ru/docs/mzsr/finance/30>

Nakatis Y. A., Kadyrov F.N. (2002). Shadow payment for medical services in health care: reasons and consequences, countermeasures (Tenevaya oplata meditsnskih uslug v zdavoohranenii: prichiny b posledstviya, medoty provivodeystviya). *Health economics (Ekonomika zdavoohranenia)*, 8.

OECD (2012). Reviews of Health Systems: Russian Federation. OECD Publishing (<http://dx.doi.org/10.1787/9789264168091-en>)

Panova L.V., Rusinova L.V. (2005). Inequality in access to primary care (Neravenstvo v dostupnosti pervichnoy meditskskoj pomoshchi). *Sociological research*, 6, 127-135.

Popovich L., Potapchik E., Shishkin S. et al. (2011) Russian Federation: Health system review. Copenhagen: World Health Organization, on behalf of the European Observatory on Health Systems and Policies.

Potapchik E.G., Selezneva E.V., Shishkin S.V. (2011). Accessibility of medical care for the population (Dostupnost' meditsnskoj pomoshchi dlya naseleniya). WP8 «State and municipal management», HSE.

RBC (RosBussinessConsulting) (2012). Russian market of paid medical services in 2000-2011, forecast for 2012-2015 (Rossiiskiy rynek platnyh meditsnskih uslug v 2000-2011 godah, prognoz na 2012-2015 gody). <http://marketing.rbc.ru>

RLMS (The Russia Longitudinal Monitoring Survey - HSE) www.hse.ru/rllms

Roszdraznadzor (2009). All-Russian sociological survey "Study of the Russian population opinion on accessibility and quality of health care" (Vserossiiskoe sotsiologicheskoe issledovanie "Izuchenie mneniya naseleniya Rossiiskoy Federatsii o dostupnosti i kachestve meditskskoj pomoshchi). Moscow.

Sabirianova P.K., Zelenska T. (2010). The Price of the Hippocratic Oath: Determinants of Bribery in Russian Health Care. First draft. December 22., http://www.iza.org/conference_files/InfoETE2011/peter_k200.pdf.

S-media (2011). Shadow” market of medical services: pattern by type of services, type of manifestation, subject and money flow. Reasons and mechanisms of development (“Tenevoy rynek meditsinskih uslug: struktura po vidam uslug, tipam proyavleniya, subectam i denezhnym potokam. Pritsiny i mehanizmy razvitiya), <http://www.s-media.su/?action=show&id=670>

Sheiman I., Langenbrunner J., Kehler J., Cashin Ch., Kutzin J. Sources of funds and revenue collection: reforms and challenges. - Implementing health financing reforms: Lessons from and for countries in transition. Buckingham: Open University Press. 2010.

Shishkin S.V. (Ed.)

(2004). Russian health care system: out-of-pocket payment (Rossiiskoe zdavoohranenie: oplata za nalichnyi raschet). Moscow: Independent Insititute for Social Policy.

(2008). Russian health care system: physician motivation and public accessibility (Rossiiskoe zdavoohranenie: motivatsiya vrachey i obshchestvennaya dostupnost’), Moscow: Independent Insititute for Social Policy.

Shishkin S. (2013). Russia’s Health Care System: Difficult Path of Reform. In The Oxford Handbook of the Russian economy, Edited by Alexeev M. and Weber S., New York : Oxford University Press, Chapter 31, 748-774.

Shishkin S.V., Sheiman I.M. (2009). Russian health care system: new challenges and new objectives (Rossiiskoe zdavoohranenie: novye vyzovy b novye zadachi), Report of the Higher School of Economics. Moscow: Publishing house of HSE.

Sergey V. Shishkin

National Research University Higher School of Economics (Moscow, Russia). Center for Health Policy, Director

E-mail: shishkin@hse.ru, tel. +7 495 621 63 97

Elena G. Potapchik

National Research University Higher School of Economics (Moscow, Russia). Institute for Health Economics, Leading Research Fellow

E-mail: epotapchik@hse.ru, tel. +7 926 572 47 44

Elena V. Selezneva

National Research University Higher School of Economics, Center for Health Policy, Research Fellow,

E-mail: evselezneva@hse.ru, tel. +7 495 621 63 97

Any opinions or claims contained in this Working Paper do not necessarily reflect the views of HSE.

© Shishkin, 2014

© Potapchik, 2014

© Selezneva, 2014