

Formal and informal payments in health care facilities in two Russian cities, Tyumen and Lipetsk

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Informal payments for health care services are common in many transition countries, including Russia. While the Russian government proclaims its policy goal of improving access to and quality of free-of-charge health services, it has approved regulations that give local authorities the right to provide services against payment. This paper reports the results of a population-based survey ($n=2001$) examining the prevalence of the use of medical services for which people pay formally or informally in two regional capitals of different economic status. The purpose of the study was to reveal any differences in the forms of and reasons for payments between the two cities and between socio-economic groups. The results indicate that formal payments were more common in the capital of the wealthier region, Tyumen, while the prevalence of informal payments was higher in the capital of the poorer region, Lipetsk. Around 15% of respondents had made informal payments in the past 3 years. Being a female (OR = 1.57), having a chronic disease (OR = 1.62), being a pensioner (OR = 2.8) and being willing to pay for additional medical information (OR = 2.48) increased the probability of informal payments. The survey demonstrates that in Russia access to and quality of publicly funded health care services may be under serious threat due to the current unclear, non-transparent financial rules. The practice of informal payments exists along with the introduction of formal chargeable government services, which may hamper the government's efforts to enhance equality among health service users.

Keywords Russia, health care payments, health services, client views

KEY MESSAGES

- The practice of informal payments exists alongside the introduction of formal chargeable governmental health services in Russia.
- Around 15% of respondents ($n=2001$) in two Russian cities had made informal payments in the past 3 years.
- Being female, having a chronic disease, being a pensioner and being willing to pay for additional medical information increased the probability of making informal payments for health care services.

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Introduction

The constitution of the Russian Federation declares that citizens shall have the right to health care services and medicine free of charge in governmental and municipal organizations (Government of the Russian Federation 1993).¹ However, the Government resolution of 1996 on chargeable services stipulates the right of local authorities to include specific chargeable services in the set of services provided by governmental health facilities (Government of the Russian Federation 1996). Today, a client may receive a service free of charge, or pay an official service fee (formal payment), or make a shadow payment, i.e. give money or gifts to the medical staff unofficially (informal payment). The extent of formal and informal payments may have important policy implications in Russia. The current policy priorities defined by the National Project 'Health' (Government of the Russian Federation 2005), the Ministry of Health and Social Development (2007) and the White Paper on demographic policy (Government of the Russian Federation 2007) promulgate the policy priorities of the government with the aim of achieving social goals, such as improving the access to and quality of health care and free-of-charge health services for vulnerable population groups.

State funding for governmental health services declined from 6–6.5% of GNP in the 1960s to 2.8% by the year 2000 (Twigg 2000; Shishkin *et al.* 2003). Between 1991 and 1995, government revenues fell on average by 50% in Russia (Ensor and Savelyeva 1998). Despite the introduction of the health insurance system, one of the main problems encountered by the Russian health care system at that period was a substantial gap between the declarations on the government's guarantees regarding free health care benefits and the financial resources available for such benefits. The growth in health care funding that started in 2000 has so far failed to compensate for losses due to the dramatic reduction in the 1990s. This led to a serious decrease in the funding of governmental health care infrastructure (Shishkin *et al.* 2003).

In all post-socialist countries of Central and Eastern Europe, informal payments within the health care system are fairly common and have their historical roots in the socialist period (Barr and Field 1996; Tichtchenko 1996; Shishkin *et al.* 2003; Tragages and Lessof 2003; Ensor 2004; Gaál and McKee 2005; Danishevski *et al.* 2006; Gaál 2006; Gaál *et al.* 2006a; Gaál *et al.* 2006b). These payments may encourage unprofessional behaviour among health care personnel (Miller *et al.* 2000; Ensor 2004; Allin *et al.* 2006), increase inequality between patients and become a barrier to access to care (Balabanova *et al.* 2004; Panova and Rusinova 2005). Moreover, informal payments are considered morally dubious among ordinary people in various countries (Miller *et al.* 2000; Vian *et al.* 2006).

In Russia, insufficient state financing of health care, inability to maintain the current network of facilities and low salaries of health care personnel are cited as key reasons for unofficial payments (Shishkin *et al.* 2003; Allin *et al.* 2006). Shishkin *et al.* (2003) suggest that in 1999–2001 the prevalence of unofficial payments in outpatient settings was in the range of 10–20% in some regions of Russia. Aleksunin and Mit'kov (2006) and Antonova (2007) demonstrate that the prevalence was about 50% in 2004. However, in the study by Shishkin *et al.* (2003), health care personnel reported that only around 1% of

outpatients made unofficial payments. Informal payments are shown to be based on a socio-cultural tradition, a culture of tipping and the patient's willingness to pay for more attention from health care personnel (Barr *et al.* 1996; Ensor *et al.* 1998; Shishkin *et al.* 2003).

Russia was listed as one of the most corrupt countries in Transparency International's statistics for 2007 (Transparency International 2007). Thus, the woefully under-funded government system in Russia is characterized by a lack of governmental oversight and transparency (Barr and Field 1996; Ensor *et al.* 1998; Shishkin *et al.* 2003; Danishevski *et al.* 2006). If the informal payments remain as common as was shown in earlier studies, they may hamper the achievement of the social goals of the Russian government and increase inequality between service users. To reform the current payment practices, policy-makers need in-depth information on the current situation regarding the various payments and knowledge of the population's opinions about the payment procedures.

The purpose of this study was to reveal the differences in health care payment practices between cities of different socio-economic status. The particular interest was in informal (unofficial/under-the-table) payments. Although there are several studies on informal payments in Russia, no comparative studies on differences between specific Russian regions were available. The study also aims to explore whether the economic wealth of a region, the socio-economic and self-rated health status of the citizens, as well as their self-reported willingness to pay for health services, are associated with the prevalence of unofficial payments. This paper reports the results of a population-based survey examining the prevalence of the use of medical services for which people paid officially or unofficially in different health care facilities in the cities of Lipetsk and Tyumen.

The study regions of Lipetsk and Tyumen

The Russian Federation comprises 85 administrative regions (subjects/oblasts) which were grouped in 2000 into seven large federal districts (okrug). Every administrative region consists of municipalities or 'areas' (rayon) which may be rural or urban. Administrative regions differ in terms of economic development and progress in health care reform.

For the survey we selected the largest urban settings from the typical administrative regions located in the Central and Ural federal districts of Russia, which are the two biggest okrugs by population density. From these okrugs, Tyumen (population 3.3 million) and Lipetsk (population 1.2 million) regions were selected, because both of them are represented by rural and urban rayons/municipalities. In Tyumen region the biggest urban setting is the capital, Tyumen, with 510 300 residents, and in Lipetsk region it is the capital Lipetsk, with 504 300 inhabitants (Rosstat 2002).

Both Tyumen and Lipetsk are considered to be wealthy regions of Russia, Lipetsk being less wealthy than Tyumen. They differ by economic and social indicators. The average per capita monthly income in Lipetsk is approximately half that in Tyumen and slightly below the average for the Russian Federation (Figure 1). The average monthly per capita income was slightly less than 10 000 Roubles in Lipetsk in 2007, while in the Russian Federation around 30% of citizens

had a monthly income of 8000–15 000 Roubles (Figure 2). In comparison, around 17% of the Russian population had an average monthly income on a par with that in Tyumen. Tyumen region is financially stable, with huge industrial resources such as mining, processing and transportation of oil. In the late 1990s, Lipetsk region was considered an unstable region with no economic growth (Salshenitsin 1999), but in recent years the economic situation has improved (Pismenniy 2006). Neither of the regions is subsidized from the federal budget, i.e. the tax revenues transferred by the regions to the Federal budget are more than they receive from the Federal government.

In Tyumen region, the poverty rate (earnings less than the officially stated minimum living wage) was 20% in 2004, compared with 34% in Lipetsk region (Rosstat 2004). Tyumen and Lipetsk are also different in age structure. Lipetsk has a higher percentage of elderly; 20% of the urban population in Lipetsk region was 60 years or older vs. 9% in Tyumen region in 2002 (Rosstat 2002). According to official statistics, the number of disabled and pensioners is higher in Lipetsk and lower in Tyumen than the average for the Russian Federation (Figure 3).

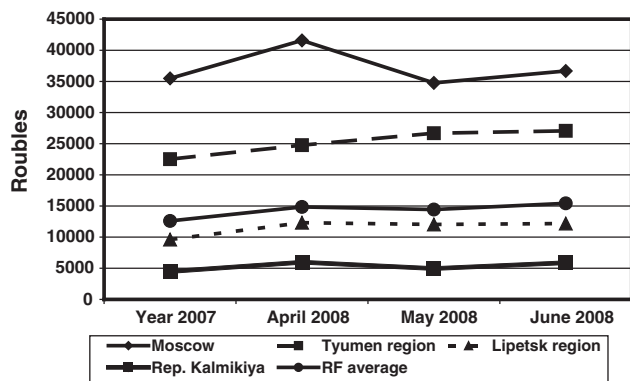


Figure 1 Per capita monthly average income in Roubles in the Russian Federation (RF average) and in four regions in the year 2007 and April, May and June 2008
 Source: Federal State Statistic Service 2008.

Methods

This cross-sectional study was conducted as a part of a survey on the population’s health behaviour, health attitudes and satisfaction with health care services in two Russian regional capitals. Data were collected in the framework of the Development of Primary Health Care Project implemented in the Russian Federation from 2006–2009 and funded by the Commission of the European Union (European Union and Ministry of Health & Social Development 2007). The data consisted of a representative random sample of the adult population of the regional capitals Lipetsk and Tyumen. Personal face-to-face interviews were conducted in December 2006 for the randomly selected sample of inhabitants aged 18 years and older, using a multi-staged sampling of households with stratification by four city districts in Lipetsk and three in Tyumen.

In the first stage, it was determined that 1000 cases from both cities would provide reliable estimates that represent the adult population of the cities with a confidence interval of 95% and confidence level of 3%. For the random sampling, an equal proportion of households was selected in each city district according to the number of residents in the district. Then the streets of the districts were selected randomly. In the second stage, the interview route lists were prepared based on systematic selection of the apartments, the step for selection being from the third to the twentieth apartment depending on the number of apartments in the house. The route lists were prepared for each city district on the assumption of a 70% response rate after three possible visits to the household. In the third stage, one family member 18 years or older, with the day of birth nearest to the day of the survey, was interviewed in each selected apartment.

The data were collected in both cities by 20 interviewers trained by the Institute of Sociology of the Russian Academy of Sciences. External and internal control of the data quality was performed by the trained supervisors, ensuring that questionnaires were completed correctly. The questionnaires were completed by respondents in the presence of an interviewer. Respondents were assured of the anonymity and

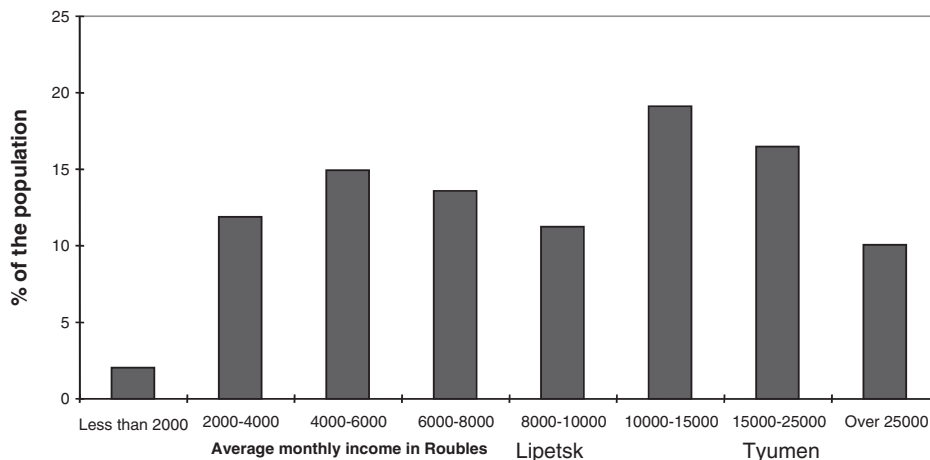


Figure 2 Distribution of the population of the Russian Federation by per capita average monthly income in 2007, roubles
 Source: Federal State Statistic Service 2008.

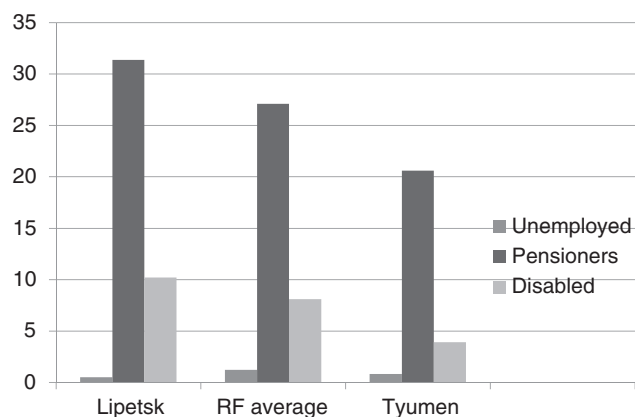


Figure 3 Percentage of unemployed, pensioners and disabled in Lipetsk, Tyumen and the Russian Federation in 2006 according to official statistics

Source: Federal State Statistic Service 2008.

confidentiality of their responses. At the end of data collection, the response rate for Lipetsk was much lower than expected. Therefore, additional route lists were prepared using the above-mentioned procedure and the second round of interviews implemented. The response rate was 60% in Lipetsk and 70% in Tyumen. A total of 2001 properly filled questionnaires were included in the analysis (998 in Lipetsk and 1003 in Tyumen).

The survey instrument was developed based on a review of similar surveys conducted in Russia and in other transition countries (Zhuravlyova 1989, 1993; World Bank 2003; Shishkin *et al.* 2004; Cockerham *et al.* 2006). The questionnaire, consisting mainly of structured multiple-choice questions and a few open-ended questions, was pre-tested in Moscow in September 2006. It included 70 questions on: (1) socio-economic factors, (2) use of health care services (visits to medical facilities during the past 3 years, visits to doctors during the past 12 months, use of preventive check-ups, types of chargeable and free-of-charge services used, and willingness to pay for health care services), (3) perceptions of quality of health services and satisfaction with different aspects of health care services (personnel, location and comfort of facilities), and (4) health behaviour and opinions on health-related issues (smoking, alcohol consumption, body mass index, self-rated health, chronic diseases, disability, self-reported anthropometric data, psycho-emotional status, self-help activities and opinions on factors positively/negatively affecting health).

For the analysis, the following variables were used. Education was measured by a multiple-choice question and replies were grouped into three categories: basic ('elementary school' and 'unfinished secondary school'), secondary ('completed secondary school' and 'vocational college') and high ('unfinished high school' and 'completed high school'). Employment was assessed using the categories employee, student, pensioner and unemployed. Income included three categories: low income ('money is hardly enough from salary to salary' and 'money is not always enough for clothes and shoes'), medium income ('money is enough for daily needs, but not for durable goods') and high income ('money is enough to buy a refrigerator and car' and 'we don't need to deny ourselves anything'). Three

categories for self-rated health were: good ('good' and 'very good'), satisfactory and poor ('poor' and 'very poor').

Prevalence of health care payments, whether formal or informal, was measured by the question 'Have you used chargeable medical services in the past 3 years?' Multiple-choice questions on the facilities where the chargeable services were used included 13 options that were merged into two major groups: governmental and private facilities. *Governmental* health facilities included outpatient units, dispensaries, general physician's offices, health facilities at governmental work place, obstetric clinics, hospitals (district, city or regional), medical doctor's assistant (feldsher) offices and trauma departments. *Private* health facilities included medical centres, private clinics, dental care units, private hospitals and healers. Multiple-choice questions were used to examine the reasons for using chargeable services. For the analysis the replies were grouped into four categories. The prevalence of informal payments was measured by the question 'Have you in the past 3 years paid or given gifts for medical services that should be provided free of charge, that is, did you make unofficial payments?'

The prevalence of formal and informal payments was analysed by the socio-economic and health indicators, as listed in Table 2, and by the type of medical services used, as listed in Table 4. *Formal* payments included payments that respondents reported making to the finance department/cash desk of health institutions. *Informal* payments were money or gifts given to a doctor, nurse or other personnel directly for free services or over and above any official fee.

Statistical calculations were made using software SPSS 15.0. Statistical significance was calculated by Pearson chi-square test. For the inter-city comparisons, all estimates were weighted for age and presented in Tables 3 and 4 as crude and age-adjusted values. The mean values were compared using the Mann-Whitney U test. In the multivariate logistic regression analysis, we assessed two primary outcomes: (1) use of chargeable health services (formal or informal) during the past 3 years, and (2) informal payments for free medical services, i.e. those services that according to the Constitution of the Russian Federation and in the respondents' view should be provided free of charge. Regression models were obtained using binary logistic regression with forward selection (by likelihood ratio).

Results

A total of 2001 individuals responded in Lipetsk and Tyumen. The majority of them had visited health care institutions in the past 3 years: 96.1% in Lipetsk and 98.8% in Tyumen. Respondents reported having attended an area/city polyclinic (82%), dental polyclinic (31.7%), obstetric clinic (15.6%) and area/city hospital (11.4%). In Tyumen, non-governmental private clinics (13.2%) and medical centres (13.6%) were also mentioned. The mean age of respondents was 43.8 years, and 63.6% were female. A comparison of age and gender structure between Lipetsk and Tyumen and the All Russia Population Census data (year 2002) showed significant differences (Table 1). For this reason the results are presented as crude and age-adjusted. Education was relatively high in both cities,

Table 1 Age and gender of the study population in Lipetsk and Tyumen, and of the Russian population

Age and gender	All respondents			Respondents reporting use of chargeable services in past 3 years			All Russia Census, 2002
	Lipetsk (n = 998) %	Tyumen (n = 1003) %	Total (n = 2001) %	Lipetsk (n = 417) %	Tyumen (n = 577) %	Total (n = 994) %	Total population (n = 145 166 731) %
Age (years)							
18–29	24.5	30.2*	27.3	30.9	36.6	34.2	22.2 (16–29)
30–39	14.2	18.2*	16.2	18.5	20.5	19.6	13.8
40–49	19.3	17.3	18.3	22.3	17.3	19.4	16.6
50–59	17.4	16.4	16.9	15.1	16.6	16.0	10.6
≥60	24.6	17.9*	21.3	13.2	9.0	10.8	18.6
Gender							
Male	33.6	39.2*	36.4	30.9	39.7*	36.0	46.6
Female	66.4	60.8*	63.6	69.1	60.3*	64.0	53.4
	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* $P < 0.05$ between the cities.

with only 9% of respondents having only elementary or unfinished secondary education. The self-reported unemployment rate was 5.9%. Nearly half of respondents reported satisfactory self-rated health, with the same number reporting chronic diseases. Respondents from Lipetsk and Tyumen differed significantly in mean age, income and perceived health characteristics. In general, respondents from Tyumen were younger, and more often reported higher income and better self-reported health. Altogether 994 respondents (49.7%) reported having used chargeable medical services (Table 2).

Use of chargeable health services

Respondents in Tyumen reported use of chargeable health services more often than respondents in Lipetsk (57.5% vs. 41.8%, $P < 0.001$). More than a third of the study group (37.3%; Lipetsk 33.0%, Tyumen 41.7%) reported having paid for services in private health care facilities, compared with nearly a third in government facilities (28.5%; Lipetsk 18%, Tyumen 38.9%). Among government health facilities, outpatient units (poly-clinics, i.e. primary health care centres) were most often mentioned (19.7%; Lipetsk 11.0%, Tyumen 28.3%, $P < 0.001$) (Table 3). Other governmental institutions were mentioned by 15.5% of respondents (Lipetsk 9.9%, Tyumen 21.8%, $P < 0.001$), of them obstetric clinics (8.4%; Lipetsk 3.6%, Tyumen 13.3%, $P < 0.001$) were mentioned most often, followed by municipal or regional hospitals (4.3%; Lipetsk 3.3%, Tyumen 5.4%). Among private health facilities where services were paid for, dental care units were mentioned most often in both cities (27.5%; Lipetsk 26.7%, Tyumen 28.4%). Other private facilities included private clinics (Lipetsk 9.4%, Tyumen 5.1%, $P < 0.001$) and private medical centres (Lipetsk 3.3%, Tyumen 9.4%, $P < 0.001$). Around 1% of respondents reported using chargeable health services at other health facilities listed in the questionnaire (see Methods) without significant differences between cities.

In both cities, young adults more often than other age groups reported using chargeable services. Among 18–29 year olds, 52.9% in Lipetsk and 69.6% in Tyumen used such services,

compared with 22.4% and 28.9% of those aged 60 years and older, respectively ($P < 0.001$). In both cities, those with high income used chargeable services more often (Lipetsk 55.2%, Tyumen 70.7%) than those with medium (40.7% and 57.8%) or low income (34.6% and 37.9%) ($P < 0.001$).

The results of the multivariate analysis of the influence of socio-demographic and health variables on the use of chargeable health services showed that being female (odds ratio 1.32 vs. 1.0 for men; $P < 0.05$), being highly educated (odds ratio 1.77 vs. 1.0 for basic education; $P < 0.001$), and having high income (odds ratio 1.89 vs. 1.0 for low income; $P > 0.001$) were positive and statistically significant influences on the use of chargeable services. Also, the odds of using chargeable services decreased significantly with age. Respondents with chronic diseases were twice as likely to use chargeable services as respondents without chronic diseases. Self-rated health did not reveal any independent significant influence on use of chargeable services. Being a student, a pensioner or unemployed was associated significantly with a twofold lower probability of use of chargeable services.

In response to the multiple-choice question on the reasons for using chargeable medical services, 43.4% reported that they had no choice. A third of the respondents (34.2%) pointed out the importance of obtaining services of better quality. Approximately the same proportion (32.7%) chose chargeable services for reasons of convenience (no queues, time saving) while 18.4% reported 'just a habit' as a reason. Respondents with different socio-demographic backgrounds differed significantly in relation to reasons reported for the use of chargeable services. The high income group reported 'just a habit' more often than the low income group (18.2% vs. 10.1%; $P < 0.01$), and less often 'no choice' (38.6% vs. 46.6%; $P < 0.05$), as a reason for paying. The most educated most often preferred to pay for services for reasons of quality (39.9% vs. 22.0% of respondents with basic education; $P < 0.05$).

In Lipetsk, quality (50.5%) and convenience of services (48.8%) were given more often as reasons for paying for health care services than in Tyumen (22.6% and 21.2%, respectively; $P < 0.001$). In Tyumen, absence of choice

Table 2 Socio-economic characteristics and self-reported health of the study population in Lipetsk and Tyumen ($n=2001$)

Socio-economic status and self-rated health	All respondents			Respondents reporting use of chargeable health services in past 3 years		
	Lipetsk ($n=998$) %	Tyumen ($n=1003$) %	Total ($n=2001$) %	Lipetsk ($n=417$) %	Tyumen ($n=577$) %	Total ($n=994$) %
Mean age (years) ^a	45.5 ± 17.7	42.2 ± 17.1*	43.8 ± 17.5	40.5 ± 15.9	38.4 ± 15.3*	39.3 ± 15.5
Education						
Basic	7.9	10.2	9.1	5.5	4.7	5.0
Secondary	48.1	50.0	49.0	42.9	48.0	45.9
High	43.7	39.8	41.8	51.6	47.3	49.1
Missing	0.3	0.0	0.1	0.0	0.0	0.0
%	100.0	100.0	100.0	100.0	100.0	100.0
Employment						
Worker/employee	54.3	60.4*	57.4	65.2	69.8	67.9
Student	8.6	10.0	9.3	10.8	10.6	10.7
Pensioner	31.4	22.4*	26.9	19.2	12.5*	15.3
Unemployed	5.3	6.5	5.9	4.3	6.4	5.5
Missing	0.4	0.7	0.5	0.5	0.7	0.6
%	100.0	100.0	100.0	100.0	100.0	100.0
Income						
Low	46.4	22.6*	34.5	38.4	14.9*	24.7
Medium	25.9	44.2*	35.0	25.2	44.4*	36.3
High	23.9	33.0*	28.5	31.7	40.6*	36.8
Missing	3.8	0.2	2.0	4.8	0.2	2.1
%	100.0	100.0	100.0	100.0	100.0	100.0
Self-rated health						
Poor	18.4	10.0*	14.2	15.4	6.2*	10.1
Satisfactory	50.8	41.0*	45.9	55.4	39.0*	45.8
Good	26.9	48.4*	37.7	26.6	53.9*	42.5
Missing	3.9	0.6	2.2	2.6	0.9	1.6
%	100.0	100.0	100.0	100.0	100.0	100.0
Chronic diseases						
Yes	51.4	40.6*	46.0	51.8	40.0*	45.0
Disabled						
Yes	14.0	10.4*	12.2	9.9	7.5	8.5

^aAge presented as mean value ± standard deviation.

* $P < 0.05$ between the cities.

(54.7% vs. 27.7%; $P < 0.001$) and 'just a habit' (28.8% vs. 3.9%; $P < 0.001$) were mentioned more often.

Payments for government health services

The respondents of the youngest age group in both cities reported more often than other groups having paid in governmental facilities (Table 3). Private health care services were used most often by 30–39 year olds. Differences between the age groups were statistically significant for both cities. Women seemed to pay more often than men in all facilities, the difference, however, not being statistically significant. Significant differences were found between the education, employment and income groups in Tyumen. Those with high

education, a job and high income reported using all kinds of chargeable services more than other education, employment and income groups. Similarly, those with good self-rated health in Tyumen reported more often having paid for all kinds of chargeable services (Table 3).

Respondents who used services requiring payment in governmental facilities most often did so because 'there was no choice' (51.4%), while only 39.1% of those attending private health facilities mentioned such a reason ($P < 0.05$). Other reasons for payments that showed significant differences between those paying in governmental compared with private settings were better quality (25.8% vs. 39.8%, respectively; $P < 0.05$), better convenience (27.0% vs. 36.3%, $P < 0.05$) and 'just a habit' (23.3% vs. 17.3%, $P < 0.05$).

Table 3 Crude and age-adjusted (in brackets) percentage of respondents using chargeable services in government and private health facilities in the past 3 years by socio-economic and self-rated health status, in Lipetsk and Tyumen in 2006 (*n* = 2001)

Socio-economic status and self-rated health	Respondents (%) using chargeable services of					
	Government health facilities		Government outpatient units		Private health facilities	
	Lipetsk (<i>n</i> = 998)	Tyumen (<i>n</i> = 1003)	Lipetsk (<i>n</i> = 998)	Tyumen (<i>n</i> = 1003)	Lipetsk (<i>n</i> = 998)	Tyumen (<i>n</i> = 1003)
All respondents	18.1 (15.3)	38.9 (36.0)	11.3 (9.4)	28.3 (26.9)	33.0 (29.6)	41.7 (37.0)
Age group						
18–29	27.5	45.5	16.4	31.0	39.3	50.8
30–39	22.5	41.5	12.0	29.5	45.8	53.0
40–49	19.2	38.7	13.0	28.9	36.8	42.8
50–59	13.8	43.9	10.3	34.8	29.3	37.8
≥60	8.2	20.6	4.1	16.1	18.8	17.2
Gender						
Male	14.9	37.2	10.1	33.3	29.9	39.4
Female	19.6	40.0	11.5	25.1	34.6	43.1
Education						
Basic	12.7	19.6	7.6	17.6	21.5	10.8
Secondary	16.9	39.9	9.6	30.3	27.5	37.7
High	20.4	42.5	13.3	28.5	41.3	54.5
Employment						
Worker/employee	21.2	45.5	12.5	33.5	40.0	49.5
Student	23.3	35.0	17.4	21.0	41.9	44.0
Pensioner	10.2	22.7	6.7	18.2	19.8	19.1
Unemployed	24.5	28.5	11.3	26.2	22.6	34.1
Income						
Low	14.5	26.4	9.5	19.4	26.3	25.1
Medium	20.9	41.5	11.6	31.2	33.3	40.6
High	22.2	43.8	13.4	30.8	42.7	54.4
Self-rated health						
Poor	16.3	24.0	11.4	15.0	25.0	27.0
Satisfactory	20.5	36.5	13.0	28.0	35.1	39.7
Good	14.9	43.4	7.5	30.9	36.2	46.7
Chronic diseases						
Yes	17.1	39.6	10.7	28.0	33.0	41.8
No	18.9	37.8	11.3	28.7	32.9	41.5
Disabled						
Yes	18.8	40.0	11.3	29.1	34.8	43.5
No	13.6	27.9	9.3	21.2	22.1	26.9

Formal and informal payments

Altogether 14.5% of the study group (Lipetsk 19.2% and Tyumen 9.9%, *P* < 0.001) reported having paid informally in the past 3 years. Respondents with medium income in Lipetsk reported having paid informally in governmental health facilities more often than those with low or high income. In Tyumen the low income group reported making informal payments for free governmental services more often than the other groups (Figure 4). Among those who sought medical services, i.e. those who visited health facilities in the past

3 years (*n* = 1960), 20.0% of respondents in Lipetsk and 9.9% in Tyumen reported having paid unofficially. In Lipetsk, nearly half (45.7%) of those who visited a governmental health facility in the past 3 years reported having paid for the services informally, compared with 17.0% in Tyumen (Figure 5).

In both cities, formal payments were mostly related to treatment and consultation services and diagnostic procedures. Almost every third respondent reported having paid formally for such services. Altogether 8.4% of respondents reported having paid informally for treatment and consultation services.

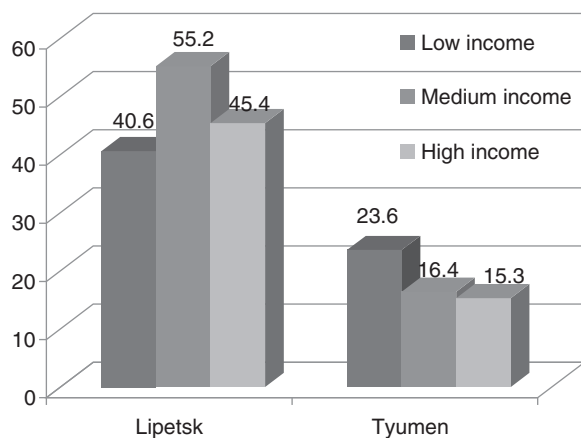


Figure 4 Prevalence of informal payments for free governmental health care services in the past 3 years in Lipetsk and Tyumen by income level ($n=2001$), 2006, in percentages

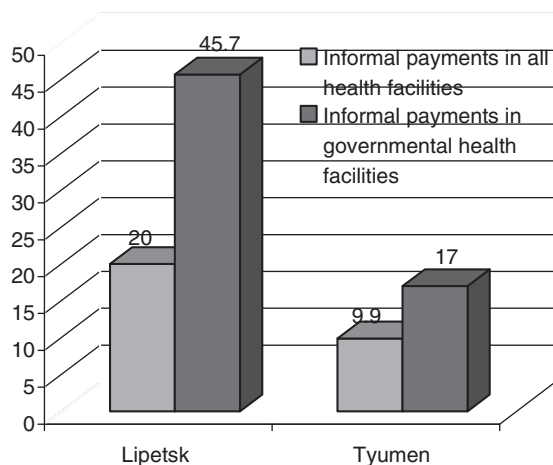


Figure 5 Prevalence of informal payments among those who visited health facilities in the past 3 years in Lipetsk and Tyumen ($n=1960$), 2006, in percentages

Every tenth respondent reported having paid officially for receiving a statement (e.g. for a driving licence or for the employer) or a referral to other medical institutions, and 6.3% paid unofficially. Informal payments for all kinds of services, besides diagnostic services, were statistically significantly more prevalent in Lipetsk than in Tyumen, the difference being about twofold. Meanwhile, the prevalence of formal payments was clearly and significantly higher in Tyumen for diagnostic procedures (41.3% vs. 18.9%), as well as for treatment and consultation (46.6% vs. 24.9%) (Table 4).

The probability of making informal payments for free, in principle, governmental services was significantly higher for women (odds ratio = 1.57), for those who had chronic diseases (odds ratio 1.62) and for pensioners (odds ratio 2.8), and was lower for the unemployed (odds ratio 0.57) and people aged over 60 years (odds ratio 0.13) compared with those aged 18–29 years (odds ratio 1) (Table 5). Income and education were not independently associated with informal payments for ‘free services’.

Satisfaction and willingness to pay

In Lipetsk and in Tyumen, 41.3% and 41.8%, respectively, of those who paid for services were satisfied with their quality. The results of the multivariate analysis showed that satisfaction with the quality of services paid for was significantly and negatively associated with the probability of making informal payments. Those who were not satisfied with the quality of chargeable services were 2.48 times more likely to pay unofficially than those who were satisfied ($P < 0.001$).

A substantial number of respondents reported willingness to pay for health care services (Table 4). Significantly more were willing to pay for diagnostic procedures, treatment and consultations in Tyumen than in Lipetsk, where in turn ensuring privacy and convenience were mentioned more often than in Tyumen. Interestingly, the services that respondents most often reported having paid for officially were the same as those for which they were most often also willing to pay. Willingness to pay for health care services was strongly positively associated with reported satisfaction with the quality of the chargeable services. Table 5 shows that willingness to pay for additional medical information was linked to the probability of making informal payments, indicating that respondents may have tried to cope with problems in getting medical information from health care personnel.

Discussion

Around half of the adult population in Lipetsk and Tyumen had used chargeable health care services, either governmental or private, in the past 3 years. The results suggest that in Lipetsk nearly a fifth and in Tyumen more than a third of adults paid for services in governmental health facilities that, according to the Russian constitution, should be free. Most often people paid for primary health care services provided by outpatient units. The situation is alarming, as around half of the study respondents said that they had no choice than to pay. On the one hand, this may be read as an inability of the current health care system to respond to the constitutional rights of Russian citizens to free services in governmental health facilities. On the other hand, it confirms that the commonly accepted interpretation of Article 41 of the 1993 Constitution of the Russian Federation is also reflected in the 1996 Government Resolution on chargeable services, allowing government health institutions to earn revenue by selling services.

Looking at the last 10 years, it seems that Russian citizens paid previously and still pay for outpatient services at a rate approximately half that for dental and hospital services (Boikov 1998; Shishkin *et al.* 2004). Comparison of the results of the present survey with the findings of Shishkin *et al.* (2004) in 2002 indicates that the socio-economic diversity of the Russian regions is mirrored by differentiations in the prevalence of chargeable ambulatory outpatient services which became more prevalent in wealthier cities of Russia. During the period from 2002 to 2006 there was also a tendency towards a slight increase in the prevalence of unofficial payments for outpatient services. Nevertheless, there is still a two-fold difference in the prevalence of unofficial payments between cities of different socio-economic status.

Table 4 Crude and age-adjusted (in brackets) percentage of respondents who made formal and informal payments in the past 3 years and reported they were willing to pay for health services by the type of the service, in Lipetsk and Tyumen in 2006 ($n=2001$)

Type of service	Lipetsk ($n=998$)			Tyumen ($n=1003$)			Total ($n=2001$)		
	Paid formally	Paid informally	Willing to pay	Paid formally	Paid informally	Willing to pay	Paid formally	Paid informally	Willing to pay
Diagnostic procedures	18.9 (17.3)	2.0 (2.0)	48.0 (44.9)	41.3*** (37.9)***	1.0 (0.8)***	62.1*** (56.1)***	30.1 (27.2)	1.5 (1.4)	55.1 (50.3)
Treatment and consultation	24.9 (22.0)	11.0 (10.1)	54.1 (49.1)	46.6*** (42.0)***	5.8*** (5.5)***	62.4*** (56.1)**	35.8 (31.6)	8.4 (7.8)	58.3 (52.5)
Home visits of doctor/nurse	5.3 (4.6)	4.0 (3.7)	35.4 (33.1)	4.1 (3.5)***	2.4* (2.3)***	36.6 (33.7)*	4.7 (4.1)	3.2 (3.0)	36.0 (33.4)
Preventive services and additional medical information	9.7 (8.5)	3.4 (2.9)	9.3 ^a (8.0)	9.4 (8.2)	1.3** (0.9)***	12.0 (11.1)***	9.5 (8.3)	2.3 (1.9)	10.6 (9.5)
Receiving statement or referral to other medical institution	9.7 (8.6)	8.8 (7.2)	33.5 (28.2)	10.4 (9.0)*	3.8*** (3.1)***	35.6 (30.4)***	10.0 (8.8)	6.3 (5.3)	34.5 (29.3)
Ensuring privacy and comfort	15.8 (14.1)	7.3 (6.1)	59.2 (54.7)	14.7 (13.0)***	3.3*** (2.9)***	54.7* (48.4)***	15.2 (13.6)	5.3 (4.6)	57.0 (51.6)
Other (e.g. visit without insurance)	2.5 (2.3)	1.4 (1.3)	2.3 (2.5)	0.9** (0.9)***	0.1** (0.1)***	0.7** (0.7)***	1.7 (1.6)	0.7 (0.7)	1.5 (1.6)

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$ between the cities.

^aWillingness to pay for the additional medical information.

Citizens from wealthier regions of Russia seem to be less likely to pay informally for outpatient services. Our results confirmed that informal payments are fairly common in both cities studied. Formal payments for the governmental health care services were more common in Tyumen, in the wealthier region, than in Lipetsk, in the less wealthy region, where in turn the prevalence of informal payments was higher. This may be linked to the gap between the declarations of the government regarding free health care services and the real financial resources available in the regions. It may also be explained by the differences in the commercialization process between regions with different economic situations. In wealthier regions the formal service fees may be better accepted by decision-makers responsible for health care planning, while in poorer regions such an approach may not be obvious due to economic constraints, i.e. anticipated inability of people to pay. Thus, in the wealthier region of Tyumen the official chargeable services, not only in the private sector but also within the governmental health care system, seem to be more readily available and more popular among the population.

The high level of under-the-table payments (19% in Lipetsk, 10% in Tyumen) could be explained by three major factors. First, the current health care management system lacks transparency and clear rules in terms of payment procedures. This, combined with the contradictory legislative base, makes it possible for individual health care institutions to make their own rules. If the rules are not properly publicized to the population, there remains space for misconduct by both health professionals and patients who condone informal payment.

Second, taking into account the cultural tradition of informal payments, it is understandable that they did not cease to exist when the Soviet system collapsed. The new financial mechanisms of the mandatory health insurance reorganized the financial flows from tax/insurance payers to the service providers. Still, the old gift-giving practices continue to dominate because, as Pidde *et al.* (2003) argue, the social

paradigm is determined by soft factors (attitudes, values, modes of thought and the action governed by them) which may remain unchanged even though hard factors (legislation, financial and administrative structures) have changed. Consequently, due to the traditions, patients may consider the socially accepted old practices more binding than officially approved laws. This kind of hidden agenda, i.e. restrictive collective norms, does not give the freedom for an individual to refuse to pay unofficially.

The third possible reason for accepting informal payments may be the lack of an alternative course of action when health care personnel implicitly or explicitly require such payments. As long as service users do not question the relevance or fairness of the informal payments, but accept them with the justification of 'tak prinjato', i.e. 'it is just a habit', real change will not be seen.

In this article, we have not used the word 'bribe', although some informal payments could probably be so called. We decided to stick to a morally more neutral term of informal/unofficial payments, because we did not explicitly focus on studying bribes in health care. It is useful also to keep in mind that the difference between a bribe and a gift may not be clear for the service users in relation to informal health care payments in Russia today.

The representativeness of the study was assured by the multi-stage stratified random sampling. Study limitations might have arisen from the lack of privacy during interviews and the effect of the interviewer, which may have led respondents to give more socially desirable answers. However, the household interviews may give more reliable information on payment practices, in particular on informal payments, than similar interviews conducted in health care facilities. In assessing the results it needs to be borne in mind that we did not explore the amount of financial resources used for the formal and informal payments. Therefore, it is impossible to discuss the financial impact of formal or informal payments on the household

Table 5 Logistic regression model for informal payments for health care services that should be provided to clients free of charge ($n=2001$)

Variable	β coefficient ^b	Odds ratios (95% CI)
Lipetsk ^a		1.0
Tyumen	-1.42	0.24 (0.17–0.33)***
Age group		
18–29 ^a		1.0
30–39	0.08	1.06 (0.67–1.69)
40–49	-0.08	0.93 (0.58–1.49)
50–59	-0.20	0.79 (0.47–1.36)
≥60	-1.86	0.13 (0.05–0.33)***
Gender		
Male ^a		1.0
Female	0.42	1.57 (1.13–2.19)**
Chronic diseases		
No ^a		1.0
Yes	0.55	1.62 (1.17–2.24)**
Job status		
Worker/employee		1.0
Student	-0.15	0.66 (0.36–1.25)
Pensioner	0.94	2.8 (1.33–6.03)**
Unemployed	-0.48	0.57 (0.27–1.20)*
Willingness to pay for additional medical information		
No ^a		1.0
Yes	0.69	2.0 (1.33–3.01)***

Note: Variables included in the model: city, age group, gender, education, employment, income, self-rated health, presence of chronic diseases and disability, satisfaction with the quality of chargeable services and willingness to pay.

^aReference category.

^b β indicates linear regression coefficient of using free-of-charge health services.

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.

budget or the governmental or regional budget. Instead, in line with our major aim in this research, we revealed the clear differences in payment practices between two cities of different socio-economic status, with formal payments prevailing in the wealthier region and informal payments in the poor region.

Conclusions

In Russia, the access to and quality of publicly funded health care services may be under serious threat due to the current unclear, non-transparent financial rules. This may lead to deterioration of the quality of governmental free health care services in general because institutions that provide both chargeable and free services will tend to develop those services that bring more financial benefits. Secondly, the double service provision system, which is the accepted situation in Russia today (Danishevski *et al.* 2006), could be regarded as putting 'pressure' on clients to choose chargeable options.

The ongoing health sector reform in the Russian Federation does not, according to the official policy documents, promote

out-of-pocket payments. Instead, the documented national health and demographic policy aims to improve equality between citizens (Government of the Russian Federation 2005; Government of the Russian Federation 2007; Ministry of Health and Social Development 2007). Nevertheless, the practice of informal payments seems to exist alongside the introduction of formal chargeable government services (since 1996). This is alarming, because it is very difficult to control the amount and the frequency of informal payments in a society where 'gift-giving' is widely accepted among health service users. Consequently, the double fee system in the government health facilities may hamper efforts to enhance equality among health service users.

While the problem of informal payments for government health care services is acute both in Lipetsk and Tyumen, the same challenges are most probably also faced by other administrative regions in Russia. McIntyre *et al.* (2006) argue that in low- and middle-income countries, health care financing strategies that place considerable emphasis on out-of-pocket payments, whether to public or to private health service providers, can impoverish households. More importantly, the informal payments in Russia may increase the regional inequality among service users if citizens in poorer regions need to make more informal payments than those in richer regions.

While commercialization may cause an increase in prices of health services in general in Russia, the open market, if it is truly open, circumscribes the need for unofficial payments by bringing the different fees into the light. If the legal payments were more beneficial for both patients and health professionals, there would be no need to make unofficial payments. Approximately half of the respondents in this study reported willingness to pay for diagnostic and treatment services, and for anonymity and convenience, which may reflect a common belief among the population that money will help to ensure quality and privacy of services. It may also reflect the readiness of the population to condone the out-of-pocket contributions. This may be particularly true of wealthier regions.

It is not known whether the grey economy within the governmental health care system will expand or shrink in the future. Economic growth may not necessarily decrease informal payments, but may increase the custom, because people have more money to use for various services. There is a need to study further to what extent the population feels that informal payments are voluntary or compulsory. If patients feel pursued or forced to pay, the question is of serious malpractice, even extortion on the side of the health personnel, regardless of the long tradition of a gift-giving culture in the former Soviet Union. Furthermore, assuming that patients act as rational consumers in the grey health care market while paying informally, they obviously believe they get better services when they pay. Further studies are needed to analyse whether people really get better and faster treatment as a consequence of informal payments in comparison with services which are free of charge or which are paid for officially.

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Endnote

¹ In this article 'governmental' is used to refer to both state and municipal agencies.

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