

**BOSTON UNIVERSITY LEGAL AND REGULATORY
REFORM PROJECT**

INSTITUTE OF SOCIAL RESEARCH
=====

Russian Citizens' Health-Related Expenses
(Analytic Report of the Household Survey Results)

Moscow, 1998

Contents

| | |
|--|----|
| Introduction..... | 3 |
| 1. Population's health care expenses (including 'shadow' payments) | 6 |
| 2. Public and private health care sectors | 9 |
| 3. Subjective and objective factors of private health service development..... | 12 |
| 4. Specific patterns of health care provision to households with various income levels..... | 17 |
| 5. General results of the household survey..... | 19 |
| 6. Regional distribution of the surveyed households..... | 25 |

Introduction

This analytic report includes data obtained in the course of a household survey¹ conducted in January, 1998 by Institute of Social Studies under its cooperative agreement (#118-0004-A-00-6215-00) with the BU Center for International Health. The project was co-directed by Messrs. Frank Feeley (The BU Center for International Health) and V.E. Boykov (Institute of Social Studies). The data was processed and this report prepared by Mr. V.E. Boykov.

The Goal of the project was to assess Russia's population's *direct involvement* in health care funding. To attain this goal, we studied the volume and structure of the household members' payments for health services obtained in public and private hospitals and outpatient facilities, as well as payments for pharmaceutical drugs. The study did not cover health services provided by healers (parapsychologists, sorcerers, etc.).

Innovation of this project pertains to the fact that its results provide a scientifically-grounded understanding of the privately paid health care market development in the Russian Federation and some economic and social implications of this process. In particular, obtained data allow to make an informed judgment about:

- the actual amounts spent by various social groups for health services and pharmaceutical drugs;
- the ratio between out-of-pocket payments for services provided by public and private health care facilities;
- the extent and share of inofficial households' payments for health services and pharmaceuticals (that is, payments which 'by-pass the cash register');
- certain limitations with respect to 'equal access' to health care resulting from differences in the level of personal income;
- social factors which affect health care provision to different social categories.

Practical importance of this study is associated with the creation of a data base that will:

1. improve public administration of Russia's health care system;
2. allow to take account of the actual social situation when developing a federal law on private health care sector;
3. increase awareness of government agencies, health workers and general public with respect to current transformation of the health care system urged by current economic and political processes in the country.

Object of the study: 3,000 households throughout Russia representing proportionate samples were randomly selected and questioned.

¹ Meaning households of various types, including those consisting of: spouses and their parents and other relatives and even persons who are not related, but live together within one household; simple families which consist of spouses with or without children; incomplete families (lonely mothers, divorced women, widows and widowers and single men).

Calculation of the sample size and selection of households were based on the following methodology:

At the first stage, several major economic/geographic regions representing various administrative-territorial types of the Russian Federation's Subjects (republics, krais, oblasts and autonomous districts) were selected. As a result, households were questioned in Republic of Karelia, St. Peterburgh, Leningrad Oblast and Moscow; Tula, Orel, Nizhny Novgorod, Voronezh, Volgograd, Kurgan, Tumen (including Khanti-Mansi District) Oblasts, and also, in Stavropol, Krasnoyarsk and Khabarovsk Krai. Percentage of households questioned in each selected region was proportionate to the share of that region's population in the overall population of the Russian Federation.

At the second stage, the samples selected for each region were further divided proportionately based on official statistics data regarding the urban/rural population ratio and its distribution by settlement type. As a result, households were questioned in 13 large cities (including Russia's capital and krais' and oblasts' administrative centers), 29 medium-size and small cities and 38 rural and rural urban-type settlements. In the medium-size and small cities, household sampling was also based on considerations regarding percentage of people residing in historic centers of the cities versus those living in industrial and 'sleeping' districts. Finally, one of criteria for selecting rural settlements was a requirement that they must be located 5 kilometers or further from the nearest city. The number of urban and rural households questioned and that within each settlement type was proportionate to the share of respective population category in the overall population of the region.

During the third stage, households were randomly selected for questioning based on existing voting lists. Household selection was carried out by regional study facilitators. The households were questioned using a standard interviewing technique (face-to-face questioning). In the event of a household's refusal to participate in the study or absence of its members at the household's permanent address (3.2 percent of the total sample), additional randomly selected households were questioned.

We interviewed only household members who were fully aware of health care services provided to their family members, the costs of those services and pharmaceutical drugs and the overall household's income.

Total number and qualitative mix of the surveyed households fully meets our projected sampling targets. Comparison of the sample with results of the latest micro-census shows that the sample adequately represents existing distribution of the country's population by its economic/geographic areas, urban/rural population ratio and the distribution by settlement type (large, medium and small cities, urban-type rural settlements and villages), as well as various types and sizes of households and their income levels.

For instance, the sample represents the following household types: rural households - 28%; households with 5 and more members - 13.2%; those with

children younger than 14 years of age - 50.1%; households with aggregate income less than officially recognized minimum of subsistence of subsistence - 22%, etc. Besides, age composition of the interviewed households and their members' educational level meets the average respective indicators for the country's general population. The sample excludes households without permanent domicile (refugees, etc.) and those belonging to the so-called financial elite because of their limited availability to the interviewers.

Conclusions regarding population's participation in health care purchasing and their attitude to private payments for health services are based both on linear statistical methods and cluster analysis based on non-parametric tests (Kendell's rank correlation). This methods allowed to define and compare specific in-depth subjective opinions of selected groups.

1. Population's health care expenses (including 'shadow' payments)

Distribution of the households by amounts of their health expenditure is shown in Table 7 below.

Table 1. Distribution of the households by amounts spent for pharmaceutical drugs and health services in December, 1997.

| Amount of health-related expenses in December 1997 (x 1,000 Rub) | Total number of households | Share in the sample (%) |
|--|----------------------------|-------------------------|
| <200 | 1461 | 48.7 |
| 201 - 400 | 376 | 12.5 |
| 401 - 600 | 159 | 5.3 |
| 601 - 800 | 80 | 2.7 |
| 801 - 1000 | 40 | 1.3 |
| > 1000 | 122 | 4.1 |
| Did not have any health-related expenses | 762 | 25.4 |

Total amount of health-related payments by 2238 households in December was 696,407,000 rubles, or 311,000 rubles per 1 household. If we multiply this figure by total number of Russian households and by 12 months, we'll get the **total amount of private payments for health care in 1997 - 144 trillion 771,7 billion rubles**. Payments for pharmaceutical drugs purchased in retail pharmacies accounted for 55% of all health-related expenses. 170 million rubles were spent for prescription drugs and 212.7 million - for OTCs. Besides, in December 1997 the households spent 57.4 million rubles for pharmaceuticals and medical devices at polyclinics and hospitals. Given that, pharmaceuticals and medical devices accounted for 62% of the total households' health-related expenses.

If we deduct citizens' payments for drugs from total health-related expenses, the sum total of payments for health services will amount to approximately 53,6 trillion rubles, which constitutes about 70% of federal and territorial health and

physical culture budgets in 1997.^{8 10} . Only 5% of the households paid voluntary insurance premiums in 1997. Most of them purchased voluntary coverage for children, and the premiums were rarely higher than 400-500 thousand rubles.

It should be also noted that the question ‘Do you prefer domestic or imported drugs?’ got the following answers (in % of all households):

| | |
|---------------------------|------|
| Only domestic drugs | 25.2 |
| Domestic and imported | 53.8 |
| Only imported | 6.9 |
| Do not see any difference | 13.8 |
| Did not answer | 0.3 |

Amount of payments for outpatient services scored second, and that for secondary hospital care third. The structure of these payments (in December, 1997) looked as follows.

Relatively high share of outpatient care expenses can be explained given that 9 of each 10 households obtained outpatient services in December, while only 389 households were admitted to a hospital. Hospitalization is much more expensive than outpatient care. Specifically, average expenses borne by households whose members obtained hospital care in December 1997 amounted to 324.4 thousand rubles.

Table 2. Structure of households’ payments for health care, December 1997.

| Privately paid health services | Total expenses, x 1000 Rub | Share of each expense item, % |
|--|-------------------------------|----------------------------------|
| Total payments for hospitalization | 52735 | 16.5 |
| Plus: | | |
| Payments for drugs and medical materials | 33171.5 | 10.4 |
| Payment to physicians | 28384 | 8.8 |
| Payments to nurses and other secondary stuff | 5977 | 1.9 |
| Payments for laboratory services | 5588 | 1.7 |
| Laundry and dry cleaning services | 332 | 0.2 |
| Total payments for outpatient care at polyclinics | 100600.7 | 31.5 |
| Plus: | | |
| Payments for drugs and medical materials | 24269.4 | 7.6 |
| Payment to physicians | 19423 | 6.0 |
| Payments to nurses and other secondary stuff | 3798 | 1.2 |
| Payments for laboratory services | 5877.1 | 1.8 |
| Payments to free-standing general practitioners | 39672 | 12.4 |
| Totals: | 319827.7 | 100 |

⁸ See: Chief Treasury Department: Report on budget execution in the Russian Federation as of January 1, 1998, p.4.

It is important to analyze distribution of private payments between private and public health sectors.

A share of payments for services obtained from private providers is considerably higher than that of households which actually obtained them. For example, in 1997, dental care at private settings was obtained by 19.8% of the households and accounted for 60.7% of the total amount of all dental care provided to all households in December 1997. Similarly, only 0.4% of the surveyed households obtained care at private hospitals, although amount of payments for them accounted for 15.3% of the total amount of payments for hospital care provided within respective period.

Table 3. Distribution of payments for health services between obtained in private and public settings in December 1997.

| Services paid for by patients | Total expenses, x 1000 Rub | Share of expenses, % |
|---|-------------------------------|-------------------------|
| Dental care, total | 116682.4 | 100 |
| Dental services provided by: | | |
| public polyclinics or hospitals | 43726.4 | 37.5 |
| private polyclinics or hospitals | 41924 | 35.9 |
| officially registered private practitioners | 23151 | 19.8 |
| inofficially practicing dentists | 7881 | 6.8 |
| Payments for health services, drugs and materials in hospitals, total | 129912.5 | 100 |
| Including: | | |
| public and agency-controlled hospitals | 109952.5 | 84.7 |
| private hospitals | 19960 | 15.3 |
| Payments for health services (other than dental), drugs and materials in outpatient facilities, total | 73232.8 | 100 |
| Including: | | |
| public and agency-controlled polyclinics | 47124.9 | 64.3 |
| private polyclinics | 15726 | 21.5 |
| inofficially and officially practicing GPs | 10381.9 | 14.2 |
| Totals: | 319827.7 | - |

‘Shadow’ health services were more or less widely spread in Russia’s former health care system. According to results of a public survey conducted by the author in May 1990, 35% of the interviewees had had some experience with respect to unofficial purchase of pharmaceutical drugs, and 19% of all respondents had been obtaining dental care from privately practicing dentists¹¹.

¹¹ See: Man and Economy (Results of a public survey). Information Bulletin #7. Moscow, Academy of Social Sciences at CPSU’s Central Committee, 1990. pp. 69-70.

According to results of the household survey, those ‘shadow’ services still exist, and most of them are provided by public health institutions. For example, in December 1997, 23.8% of the households made official payments to public and agency-controlled polyclinics, while 7.4% of the households reported of inofficial payments (by-passing the cash-register); 3% of the interviewees paid physicians officially and 12.6% made inofficial payments. ‘Shadow’ payments are often made to private polyclinics and free-standing GPs.

Table 4. Inofficial payments for pharmaceutical drugs and health services in December 1997.

| Services paid for by patients | Amount of inofficial payments, x 1000 Rub |
|---|---|
| Purchase of prescription drugs at retail pharmacies | 6403 |
| Purchase of OTC drugs at retail pharmacies and other settings | 12657 |
| Dental care, provided by: | |
| public polyclinics or hospitals | 7526 |
| private polyclinics or hospitals | 6670 |
| officially registered private practitioners | 9045 |
| inofficially practicing dentists | 5476 |
| Secondary care in: | |
| public and agency-controlled hospitals | 37811 |
| private hospitals | 940 |
| Outpatient care provided by: | |
| public and agency-controlled polyclinics | 14126 |
| private polyclinics | 2922 |
| Inofficially and officially practicing GPs | 4680 |

Total amount of inofficial payments made by respective households in December 1997 for pharmaceutical drugs and health services was 108,256,000 rubles or 15.5% of all health-related expenditure borne by those households. Our calculations show that total annual ‘shadow’ payments for pharmaceutical drugs and health care amount to 22.4 trillion ‘old’ rubles.

Most of this money are spent for drugs and medical materials and devices and the lesser part does to individual physicians and laboratory staff.

2. Public and Private Health care Sectors

It is important to find out the actual share of private health care sector versus that of medical services provided by public health care facilities. Importance of this issue is obvious, provided that private health institutions in Russia have been operating without an adequate legislative basis and started to develop later than other private businesses. Besides, an ongoing 'erosion' of the public health care system results in the growing shortage of medical services and deterioration of their quality.

The level of private health care development may be identified based on the share of households whose members actually received health care within a year in public and private outpatient and inpatient health care facilities. We used this indicator in our study.

Private sector has developed most rapidly in dental medicine. In 1997, the ratio between visits to public (including agency-controlled facilities) versus private dental care providers was 1 to 4. Percentage of households whose members obtained health services in private outpatient facilities is also high. As to secondary care, it is still delivered mainly by public hospitals and, in 1997, was provided to members of 13.6% of the interviewed households. Agency-controlled (departmental) hospitals admitted 1.1% and private clinics provided care to 0.4% of the households within the same period.

Table 5. Households whose members obtained health care in public and private health care facilities and private physician practices. (% of all households)

| Type of ownership | Generally used health services | Dental care |
|--|--------------------------------|-------------|
| State-run and agency-affiliated outpatient health care facilities | 93.7 | 76.0 |
| Private outpatient facilities; officially and unofficially practicing private physicians | 7.1 | 19.8 |
| Did not apply for health care | 4.7 | 11.6 |

(The sum exceeds 100% since some of the households obtained care in both private and public health care facilities)

In addition to the data shown in Table 1, we must note that 7.7% of households which applied for private health services obtained care - in addition to that received in private health settings - from privately practicing dentists, and 2% of such households received other health services (other than dental) from private practitioners.

The volume of health services delivered by private providers in 1997 can be better calculated if we extrapolate the share of households served by private

providers by total number of Russia's households, given that their average size is 2.28 persons per 1 household. This calculation shows that, **29 million people in the Russian Federation obtained dental care and 10.5 million received other health services from private providers in 1997.**

Another important aspect of our analysis of the current transformation of Russia's health care system is **assessment of the quality of health care provided by public and private facilities.** Naturally, a comprehensive health care quality assessment can not be conducted using public survey methodology alone without physicians' involvement in assessing treatment processes and their outcomes. However, public opinion that was collected in the course of the study should not be disregarded. It should be clarified that by 'public opinion' we mean interviewees' answers which encompass:

- interviewee's general attitude towards health services provided by public and private outpatient health institutions;
- perception of treatment outcomes and quality based on personal experience and that of other people;
- judgments about medical personnel's attitude to patients, availability of drugs, etc.;
- statements as to whether or not the person can afford to pay for health care.

The interviewee's answers (regardless of whether or not the interviewee obtained health care in 1997) looked as follows:

'Public providers assure better quality of:

- dental care - 29.9% of all interviewees;
- medical services (other than dental) - 37.4%.

'Private providers assure better quality of:

- dental care - 11.5% of all interviewees;
- medical services (other than dental) - 9.6%.

The rest of the interviewees either do not see any difference, or assume that some services are better provided by public institutions, while some - by private ones.

We have found that only one third of all interviewees gave their preferences to private health providers unconditionally. This shows that **public perception of the private health care sector's legitimacy exceeds its actual share in the overall health care service delivery.**

However, these data illustrate general public opinion that may not be based on the interviewees' personal experience. Therefore, let us refer to opinions of the household members who did have actual experience of obtaining care in both public and private health facilities. In other words, we will exclude the answers of those interviewees whose family members did not apply for health care in 1997 at all or were treated only in public and departmental facilities or by free-standing practitioners.

Table 6. High estimates of health care quality in public and private health sectors expressed by households whose members actually obtained care in health care facilities of various types of ownership.

| Health Care Facilities and Services | High Estimates of Health Care Quality (% of all answers) |
|---------------------------------------|--|
| Public health care facilities: | |
| Dental care | 7.4 |
| Medical care (other than dental) | 8.3 |
| Private health providers: | |
| Dental care | 64.2 |
| Medical care (other than dental) | 39.2 |

People who have had personal experience with getting health services in private health care facilities prefer them to public providers much more often than other interviewees. It can be safely assumed that **private health facilities, especially those rendering dental services have received substantial recognition.**

3. Subjective and Objective Factors Affecting Privately Paid Health Care Service Development

Both objective and subjective factors should be taken into account when reviewing results of the study. Let us consider some subjective factors first.

As mentioned above, many Russian citizens have developed a strong negative attitude to introduction of privately paid health services that certainly affects further development and perception of private health care sector. This negative attitude can be seen from results of several extensive public surveys conducted in different years.

For example, a survey of 1,500 Russian citizens conducted by the author in April, 1993 in 12 regions of the country has shown that 57% of the interviewees were strongly against private health care sector development². The same results were obtained in a survey of 2,500 people conducted in 21 Russian territories in 1994³. And finally, this general attitude was confirmed by data obtained by VCIOM (All-Russian Central Institute for Public Opinion Studies). In January, 1997 the institute conducted a survey throughout the Russian Federation with one question asked: 'Health care should be: a) mainly free-of-charge; b) mainly privately paid for, or; 3) both free and paid services needed.' Sixty one percent of the interviewees voted for 'mainly free-of-charge'⁴, which, strictly speaking, means 'provided by public facilities'.

² See: Political Sociology. Information Bulletin #8 (15): Moscow, "Лич", 1993, p. 44.

³ See: Man and Reforms. Information Bulletin of the Center for Social Studies #1: Moscow, Russian Academy of Government Service (РАГС), 1995. Pp. 25-26.

⁴ Environmental and Social Changes: Public Opinion Monitoring. Information Bulletin #3 (29). Moscow, All-Russian Central Institute for Public Opinion Studies, Intercenter, AHX, 1997. P. 78.

Domination of this opinion may be partly explained by the fact that equal access to free comprehensive care has been one of the main social policy priorities for decades, and it is still perceived by most of Russia's population as 'public domain' and an important evidence of social justice. However, persistence of this opinion can not be explained by established mentality alone. For instance, the same principle used lie in the fundament of the country's education system which, like the health care system, is supposed to satisfy one of the basic people's needs. However, development of private education is not rejected as much as private health care (although it is not cheered, too).

As we see it, private health care sector is being perceived negatively by most of the Russian population not because it is bad by itself. As noted above, most interviewees believe that quality of privately provided health services is not lower than that of services provided by public health care facilities. The actual problem is that there is **no justified balance between free and privately paid health services in Russia**. Moreover, as compared to private health sector, accessible free care is visibly degrading.

Statistical reports show that during the last few years the number of hospitals and recreational/preventive care institutions was decreasing constantly and production of pharmaceuticals and medical equipment was going down. This is happening with growing morbidity trends (newly diagnosed patients per 1,000 population) at the background⁵. Current situation in public health care sector is further aggravated by a substantial increase in the rates for paid-for services and non-reimbursable pharmaceutical products, payments for services which, theoretically, must be provided free-of-charge, and the growing number of cases of medical workers' ignorance. All these issues were raised by the interviewees in addition to the questions asked.

In this context, results of a public survey that was conducted in 1997 by Volgograd Oblast State Statistics Committee to study private health care market development seem relevant. The question 'what made you obtain paid health services?' got the following answers:

- Around 30 percent of all interviewees indicated that they had had to do it because services they needed had not been available at municipal health care facilities;
- 25 percent of the interviewees stated that they were not satisfied with professional qualification of physicians at public health care facilities and a lack of necessary medical equipment there;
- Every fifth respondent referred to ignorance and a lack of sensitiveness among medical personnel at public and municipal health care facilities.

One of the most significant factors accounting for negative attitude to paid health services among substantial portion of the Russian citizens is a generally low quality of life in the country. According to official statistics, 30 million

⁵ See: Quality of life in Russia: Statistical Bulletin/State Statistics Committee. - Moscow, 1996. pp. 170-180; Russia's Social Sphere. Statistical Bulletin/State Statistics Committee. - Moscow, 1996. pp. 113-114.

people (20.8 percent of Russia's population) had incomes lower than the recognized minimum of subsistence in 1997⁶. As our analysis shows, **many Russians have become 'refugees' from paid medical services and are unable to purchase pharmaceutical drugs because they can not afford them.** Let's consider this situation in greater detail.

Table 7. Refusals to purchase drugs and health services because of a lack of money in households with various average monthly income per 1 household member (% of the total number of households within each selected group)

| Refusals | Income, rubles | | | |
|-------------------------------|----------------|--------------------|----------------------|-------------|
| | <400,000 | 400,000 to 800,000 | 801,000 to 2,000,000 | > 2,000,001 |
| Drugs prescribed by physician | 50.2 | 35.8 | 21.3 | 20.0 |
| Medical examination | 36.2 | 25.6 | 17.5 | 18.2 |
| Dental care | 42.8 | 32.1 | 19.4 | 12.7 |
| Admission to a hospital | 17.8 | 9.3 | 3.6 | 3.6 |

A correlation between personal income and percent of refusals is obvious.

Naturally, when considering this correlation one should remember that people's perception of what a decent family budget is, vary and depend, to a great extent, on their habits, established life style standards and personal aspirations. What some people consider normal and decent may be unacceptable to others. Besides, specific factors, if considered separately, may seem to have no affect on public opinion at all (e.g., statements made by interviewees with different income levels regarding their understanding of formal and unofficial health-related payments' extent). However, when acting in combination with other factors, they create the so-called 'syndromes', by which we mean relatively stable states of 'public mind' which have several distinctive features at once.

Such states may be detected by way of cluster analysis that allows to identify statistically significant groups of features (clusters) among the endless variety of possible factor combinations. Furthermore, the absence of such groups indicates that certain hypothesis can not be applied to a given situation.

Our analysis revealed a group of households whose members in 1997 refused to get both (1) drugs prescribed by physicians, (2) recommended medical examination and (3) medically necessary dental care. We have also identified a group at the opposite end of the spectrum whose members did not refuse to purchase any prescribed drugs or indicated health care during the same year.

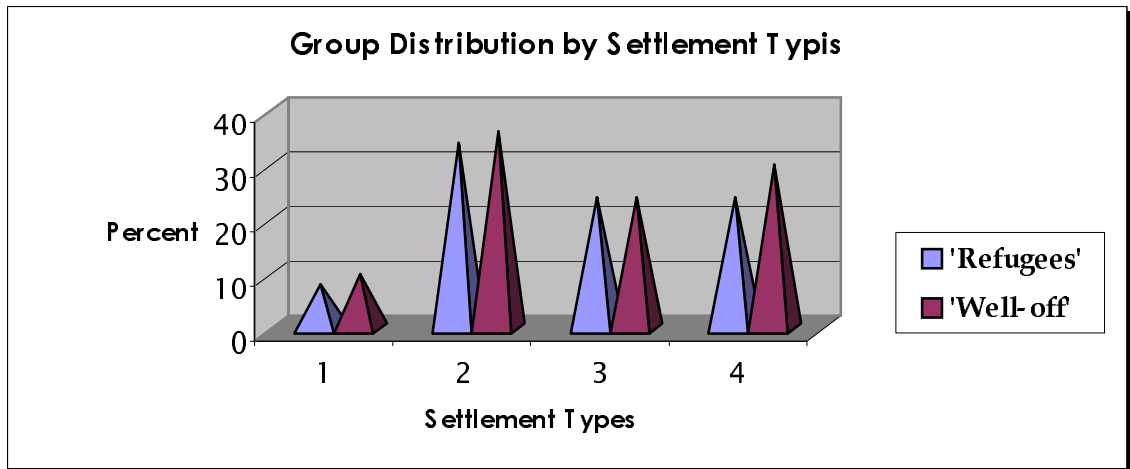
Although 'the lack of money in a family budget' may be understood differently by various respondents, the two household groups 'refugees' and 'well-off' differ greatly in terms of the levels of income per member. Within the 'refugees' group, the average per capita income did not exceed 400,000 rubles in

⁶ Statistical Bulletin #1 (40). Moscow, March 1998. P. 73.

December 1997, that is, it was not higher than the average recognized minimum of subsistence. In the second group ('well-off'), the average monthly income per person was 800,000 rubles and higher in the same month (which is two times higher than the recognized minimum of subsistence)⁸.

As shown in Figure 1, both these groups are relatively equally distributed by various settlement types. This means that division into 'refugees' and 'well-off' is generally typical for Russia.

Figure 1



1. Moscow and St. Peterburgh
2. Krai's and Oblasts' administrative centers
3. Middle and small cities
4. Rural settlements

Throughout the study we also intended to find out people's opinions regarding the changes in households' access to health care over the last 1-2 years. The answers are shown in Table 4 below.

Table 8. Households' estimates regarding changes in affordability of care for adults and children(% of the total number of households studied)

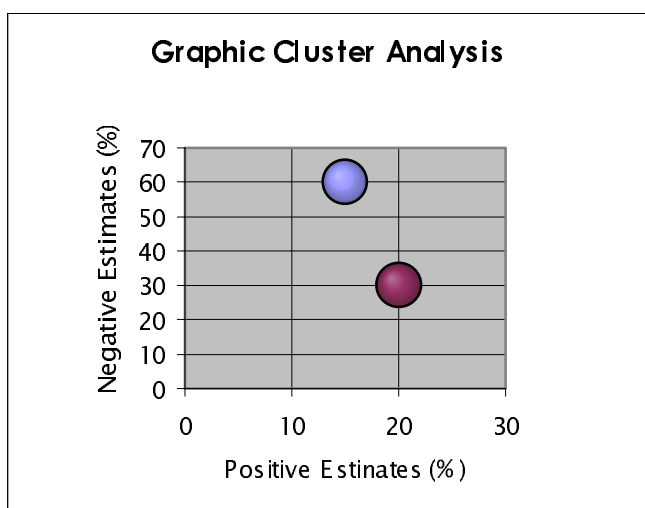
| Answers | For Adults | For Children |
|---|------------|--------------|
| Affordability improved substantially | 3.4 | 2.2 |
| Affordability improved somewhat | 10.5 | 7.6 |
| Affordability has not changed | 34.1 | 27.8 |
| Affordability decreased somewhat | 13.2 | 8.4 |
| Affordability decreased substantially | 25.8 | 31.9 |
| Had difficulties answering the question | 13.0 | 31.9 |
| Did not answer | - | 8.5 |

According to the respondents' answers, affordability of care (both for children and adults) decreased substantially in the last 1-2 years for households of

⁸ According to Russian State Statistics Committee, the minimum of subsistence in the fourth quarter of 1997 (monthly average, per capita) was 408,500 'old' rubles (about 60 US dollars at 1997' exchange rate). See: Statistical Bulletin #1 (40). Moscow, March 1998. P. 73.

the ‘refugees’ group, which is indicative of the ongoing stratification of the country’ population. As can be seen from Drawing 1 that shows results of the graphic cluster analysis, relatively dense and stable clusters of opinions regarding improvement or deterioration of health care affordability are formed depending on the presence of ‘well-being’ (red cluster) or ‘refuse’ (violet cluster) syndromes.

Drawing 1



The rates for health services vary greatly throughout Russia. For example, the rate for general medical examination by an internist in Voldodrad was approx. 25,000 ‘old’ rubles in the time of the study, and around 35,000 in Rostov. However, the prices of services and pharmaceutical drugs and medical devices increase by dozens percent each year - much faster than official average salary. This is one of the reasons why so many interviewees were giving negative estimates regarding affordability of care. To illustrate this, let’s refer to Table 5 that shows the answers about recent changes in affordability of adult health services obtained from households with different income levels.

Table 9. Estimates regarding changes in affordability of adult health services given by households with different average monthly per capita income

(% of the total number of households studied within each group)

| Answers | <400,000 rubles | 401,000- 800,000 rubles | 801,000- 2,000,000 rubles | >2,000,000 rubles |
|--|--------------------|-------------------------------|---------------------------------|----------------------|
| Affordability improved somewhat or substantially | 7.5 | 17.9 | 25.6 | 34.6 |
| Affordability has not changed | 32.9 | 33.7 | 42.2 | 25.5 |
| Affordability decreased somewhat or substantially | 46.3 | 35.9 | 20.2 | 21.9 |
| Had difficulties answering the question | 13.3 | 12.5 | 12.0 | 18.0 |

Similar distribution of answers regarding affordability of children's services has been obtained.

In households with average monthly per capita income lower than 400,000 rubles, the ratio between positive and negative affordability estimates was 1 to 6; in households with average per capita income two times higher than the established minimum of subsistence this ratio was 1/2, and 1.6/1 in those where income was 5 times higher than the minimum of subsistence.

This income-based difference can be seen from different patterns of health care provision to different household groups in 1997.

Table 10. Obtaining health services from public and private health providers
(% of the total number of households studied within each group)

| Providers' ownership and affiliation | <400,000 rubles | 401,000-800,000 rubles | 801,000-2,000,000 rubles | >2,000,000 rubles |
|--|-----------------|------------------------|--------------------------|-------------------|
| Adult household members: | | | | |
| Public and agency-controlled providers | 90.0 | 91.8 | 91.7 | 80.0 |
| Private providers | 3.6 | 7.1 | 10.1 | 21.8 |
| Children: | | | | |
| Public and agency-controlled providers | 50.9 | 49.7 | 39.8 | 34.5 |
| Private providers | 1.6 | 2.6 | 4.5 | 10.9 |

To summarize, we can state that:

First, private sector has occupied a certain social niche in the Russian Federation - privately provided health services satisfy the needs of many people who can afford paying for them;

Second, health services provided by private providers substantially compensate a shortage of care within public sector thus mitigating the problems associated with disease treatment and prevention;

Third, because of the absence of a uniform state standard for pharmaceutical supply and free care provision to the needy populations, and a lack of realistic safeguards with respect to health care many Russian citizens have lost an access to health care;

Fourth, a gap between social categories regarding access to, and the quality of care continues to grow. That leads to rapid social stratification of the country's population and aggravates social situation in Russia.

4. Specific patterns of health care provision to households with various income levels

In addition to differences between households with different income levels with respect to specific patterns of health care provision, there also some differences in health care and the levels of health-related expenses resulting from

several other social factors. Substantial differences are seen in access to health care, in general, and to specific services, in particular, regardless of a settlement type.

For example, the ratio between households which did not receive any health services and those whose members obtained health care from private providers in 1997 in various settlements, looks as follows (% of all households in a given settlement):

| Settlement type | No health services in 1997 | Obtained care from private providers |
|--|----------------------------|--------------------------------------|
| Moscow and St. Peterburgh | 4.8 | 11.1 |
| Krai's and Oblasts' administrative centers | 7.0 | 6.5 |
| Middle and small cities | 6.0 | 6.0 |
| Rural settlements | 12.0 | 4.1 |

On the average, households whose adult members do not have secondary education obtain less health care services (including private ones), while 79% of all households where all adults are university educated paid for health care in 1997 (73% in the group where adults have incomplete secondary education).

A correlation exists between the age-mix of the household members and amount spent for health care: on the average, households with children and the elderly spent more money for health services and drugs.

Table 11. Participation of various household types in health care financing in 1997 (% of all households in a group)

| Household types | % of the households which purchased health services and drugs in 1997 |
|---|---|
| With children up to 6 years of age | 78.2 |
| With children between 7 and 14 years of age | 76.4 |
| With persons over 60 years of age | 78.3 |
| Without children and the elderly (>60) | 68.2 |

We can also note that certain correlation exists between health-related expenses borne by households and size of the latter.

Table 12. Health expenses borne by households in relation to their size (% of all households in each group)

| Expenses, x 1000 rubles | 1 person | 2-3 persons | 4 persons | 5 and more persons |
|-------------------------|----------|-------------|-----------|--------------------|
| <200 | 81.5 | 68.7 | 59.5 | 56.1 |
| 201-400 | 10.3 | 15.0 | 19.6 | 20.6 |
| 401-600 | 4.1 | 6.4 | 7.2 | 10.4 |
| 601-800 | 2.1 | 3.3 | 4.6 | 3.0 |
| 801-1000 | 1.4 | 1.4 | 2.0 | 3.0 |
| >1000 | 0.7 | 4.8 | 7.3 | 7.0 |

5. General Results of the Household Survey

Figures provided in the tables below, show percent of all questioned households and, when necessary, % of all households within defined groups.

The role of various health providers in health care delivery

Health care facilities where household members obtained dental care in 1997 (More than one facility type could be indicated)

| Health providers | Answer distribution |
|---|---------------------|
| Public | 71.4 |
| Agency-controlled | 9.8 |
| Private | 12.1 |
| Public and private | 3.9 |
| Officially registered privately practicing dentists | 4.5 |
| Inofficially practicing dentists | 1.9 |

Health care facilities where household members obtained care (other than dental) in 1997 (More than one facility type could be indicated)

| Health providers | Family members > 15 years of age | Family members < 14 years of age |
|--|-------------------------------------|-------------------------------------|
| Public outpatient facilities | 84.6 | 46.7 |
| Agency-controlled polyclinics and outpatient centers | 1.8 | 3.4 |
| Private polyclinics, medical centers | 3.4 | 1.2 |
| Officially registered privately practicing GPs | 1.7 | 0.8 |
| Inofficially practicing physicians | 1.0 | 0.4 |
| Public hospitals | 12.0 | 3.9 |
| Hospitals at factories and institutions | 1.1 | 0.1 |
| Private hospitals | 0.3 | 0.1 |

Health care facilities providing high quality care other than dental (according to the interviewees)

| Health providers | Answer distribution |
|---|---------------------|
| Public | 37.4 |
| Public and private, depending on the service type | 22.8 |
| Private | 12.9 |
| No difference | 17.3 |
| Had difficulty answering the question | 9.5 |
| Did not answer | 0.1 |

Health care facilities providing high-quality dental (according to the interviewees)

| Health providers | Answer distribution |
|---|---------------------|
| Public | 29.9 |
| Public and private, depending on the service type | 18.4 |
| Private | 9.9 |
| No difference | 30.3 |
| Had difficulty answering the question | 11.4 |
| Did not answer | 0.1 |

Hospital care rendered to household members in December 1997.

| Length of hospital stay | Answer distribution |
|------------------------------|---------------------|
| Less than 7 days | 2.7 |
| Up to 14 days | 3.8 |
| Up to 21 days | 3.6 |
| Up to 28 days | 2.9 |
| Total admissions (1-4 weeks) | 13.0 |

Outpatient visits by household members in December 1997.

| Number of outpatient visits | Answer distribution |
|--|---------------------|
| 1 - 3 | 38.9 |
| 4 - 5 | 8.9 |
| 6 - 10 | 4.9 |
| ≥ 11 | 2.1 |
| Households obtained outpatient care 1 to 11 times and more | 54.8 |

Households' payments for health care and pharmaceutical drugs**Households' total official and unofficial payments for health care and pharmaceutical drugs in December 1997, in rubles**

| Expenditure items and health care facilities where the payments were made | Officially (via cash-register) | Inofficially (by-passing the cash-register) |
|--|--------------------------------|---|
| Prescription drugs purchased at pharmacies | 150344100 | 6403000 |
| OTC drugs purchased at pharmacies or other settings | 200823620 | 12657000 |
| Payments for dental care provided by: | | |
| public polyclinic or hospital | 37712400 | 6014000 |
| private polyclinic or hospital | 35438000 | 6486000 |
| officially practicing physician | 14106000 | 9045000 |
| inofficially practicing physician | 2405000 | 5476000 |
| Payments associated with admission to a public or agency-controlled hospital | | |
| General payments for treatment | 35317000 | 12660000 |
| Plus additional payments: | | |
| for drugs and materials | 30983500 | 7748000 |
| laundry and bed-clothes | 77000 | 217000 |
| to physicians | 545000 | 13526000 |
| to nurses and other hospital personnel | 1448000 | 3253000 |
| for laboratory tests | 3741000 | 407000 |

| | | |
|--|----------|--------|
| Payments associated with admission to a private hospital | | |
| General payments for treatment | 14340000 | - |
| Plus additional payments: | | |
| for drugs and materials | 2468000 | - |
| laundry and bed-clothes | 18000 | - |
| to physicians | 2300000 | 350000 |
| to nurses and other hospital personnel | 50000 | 590000 |

| | | |
|--|--------------------------------|--|
| for laboratory tests | 784000 | - |
| Expenditure items and health care facilities where the payments were made | Officially (via cash-register) | Inofficially (bypassing the cash-register) |
| Payments for outpatient services provided by public outpatient facilities | | |
| General payments for treatment | 9534300 | 7408000 |
| Plus additional payments: | | |
| for drugs and materials | 19214500 | 2315000 |
| to nurses and other hospital personnel | 445000 | 3215000 |
| for laboratory tests | 4238100 | 745000 |
| Payments for outpatient services provided by private outpatient facilities | | |
| General payments for treatment | 8740000 | 2088000 |
| Plus additional payments: | | |
| for drugs and materials | 2280000 | 142000 |
| to nurses and other hospital personnel | 59000 | 500000 |
| for laboratory tests | 1772000 | 145000 |
| Payments to officially and inofficially practicing physicians | | |
| General payments for treatment | 4672000 | 3250000 |
| Plus additional payments: | | |
| for drugs and materials | 569900 | 1005000 |
| to nurses and other hospital personnel | 80000 | 210000 |
| for laboratory tests | 380000 | 215000 |

Share of pharmaceutical and health care-related expenses in the overall households' budgets in household groups with various per capita income levels (in December 1997).

Figures received by dividing the sum total of health-related expenses of each group by households' total income)

| Income and health expenses | Households 20%, by per capita monthly income, x rubles | | | | |
|--|--|---------------------|-----------------------|-----------------------|------------------------|
| | 25.000 – 644.000 | 645.000 – 1.000.000 | 1.001.000 – 1.500.000 | 1.501.000 – 2.270.000 | 2.271.000 – 56.000.000 |
| Total income, rub | 246.372.806 | 491.567.926 | 737.344.890 | 1.091.306.940 | 2.454.646.800 |
| Total drug and health care expenses, rub | 67.313.750 | 98.111.420 | 133.048.200 | 164.539.450 | 229.129.100 |
| Expense/income | 0,27 | 0,20 | 0,18 | 0,15 | 0,09 |
| Official drug expenses/income | 0,17 | 0,13 | 0,11 | 0,06 | 0,04 |
| Inofficial drug expenses/income | 0,00 | 0,00 | 0,01 | 0,00 | 0,00 |

| | | | | | |
|--|------------------|---------------------|-----------------------|-----------------------|------------------------|
| | 25.000 – 644.000 | 645.000 – 1.000.000 | 1.001.000 – 1.500.000 | 1.501.000 – 2.270.000 | 2.271.000 – 56.000.000 |
| Official hospitalization expenses/income | 0,02 | 0,02 | 0,02 | 0,03 | 0,01 |

| | | | | | |
|--|------|------|------|------|------|
| Inofficial hospitalization expenses/income | 0,01 | 0,01 | 0,01 | 0,01 | 0,01 |
| Official expenses for outpatient care/income | 0,02 | 0,01 | 0,01 | 0,01 | 0,01 |
| Inofficial expenses for outpatient care/income | 0,00 | 0,00 | 0,00 | 0,00 | 0,00 |
| Official expenses for dental care/income | 0,02 | 0,02 | 0,03 | 0,02 | 0,01 |
| Inofficial expenses for dental care/income | 0,01 | 0,01 | 0,01 | 0,01 | 0,01 |

Households which made official payments for their members' treatment and inofficial payments to physicians, nurses, etc. in 1997

| Health providers | Official payments (via cash-register) | Inofficial payments (by-passing cash-register) |
|---|--|---|
| Public or agency-controlled polyclinic or hospital | | |
| General payment for care | 23.8 | 7.4 |
| Plus: | | |
| Separate payments to physicians | 3.0 | 12.6 |
| Separate payments to nurses, etc. | 0.6 | 5.9 |
| Private polyclinic or hospital | | |
| General payment for care | 10.7 | 1.6 |
| Plus: | | |
| Separate payments to physicians | 2.3 | 3.3 |
| Separate payments to nurses, etc. | 0.4 | 0.7 |

Households which paid voluntary health insurance premiums for their members in 1997

| Household members with VHI coverage | Answer distribution |
|-------------------------------------|---------------------|
| All members | 0.9 |
| Children only | 2.5 |
| The elderly | 0.1 |
| Members of workable age | 1.2 |
| Other members | 0.2 |
| Did not pay VHI premiums | 94.8 |

Households which made official (via cash-register) payments for pharmaceutical drugs and services and inofficial payments to physicians, nurses, etc. in December 1997.

| | Answer distribution |
|--|---------------------|
| Paid for pharmaceuticals and health services | 74.2 |
| Did not make any payments | 24.8 |
| Had difficulty answering the question | 0.5 |
| Did not answer | 0.5 |

Household grouping by amount of payments for drugs and other health-related needs (excluding health insurance) in December 1997.

| Expense items | Amount of payments, x 1000 rubles | | | | | |
|---|-----------------------------------|--------|---------|---------|----------|-------|
| | <60 | 61-120 | 121-450 | 451-900 | 901-2250 | >2250 |
| Prescription drugs at pharmacies | 14.1 | 7.7 | 9.5 | 1.4 | 0.5 | 0.1 |
| OTC drugs | 29.9 | 15.1 | 13.5 | 1.7 | 0.5 | - |
| General payment for hospital care | 0.5 | 0.3 | 0.8 | 0.1 | 0.3 | 0.3 |
| Plus: | | | | | | |
| Drugs and materials | 2.0 | 1.1 | 1.8 | 0.1 | 0.3 | 0.3 |
| Laundry/bed-clothes | 0.6 | - | - | - | - | - |
| Payment to physicians | 1.3 | 0.9 | 0.5 | 0.3 | 0.2 | - |
| Payments to nurses, etc. | 1.6 | 0.3 | 0.3 | 0.1 | - | - |
| Laboratory | 1.2 | 0.3 | 0.3 | 0.1 | - | - |
| General payment for outpatient care at polyclinics | 3.7 | 2.5 | 3.5 | 0.6 | 0.6 | 0.2 |
| Plus: | | | | | | |
| Drugs and materials | 3.5 | 1.9 | 1.6 | 0.2 | 0.1 | - |
| Payment to physicians | 1.7 | 0.8 | 1.0 | 0.2 | - | - |
| Payments to nurses, etc. | 1.0 | 0.5 | 0.2 | - | - | - |
| Laboratory | 2.3 | 0.5 | 0.3 | - | - | - |
| Payments to privately practicing physicians | 0.6 | 1.1 | 1.9 | 0.5 | 0.2 | - |

Answers to questions related to health care delivery system

Household members' estimates regarding changes in affordability of care for adults in the last 1-2 years

| Answers | Answer distribution |
|---|---------------------|
| Affordability improved substantially | 3.4 |
| Affordability improved somewhat | 10.5 |
| Affordability has not changed | 34.1 |
| Affordability decreased somewhat | 13.2 |
| Affordability decreased substantially | 25.8 |
| Had difficulties answering the question | 13.0 |

Households members' estimates regarding changes in affordability of care for children in the last 1-2 years

| Answers | Answer distribution |
|---|---------------------|
| Affordability improved substantially | 2.2 |
| Affordability improved somewhat | 7.6 |
| Affordability has not changed | 27.8 |
| Affordability decreased somewhat | 8.4 |
| Affordability decreased substantially | 31.9 |
| Had difficulties answering the question | 31.9 |

Pharmaceutical drugs preferred by interviewees

| Answers | Answer distribution |
|----------------------------|---------------------|
| Only domestic drugs | 25.2 |
| Both domestic and imported | 53.8 |
| Only imported | 6.9 |
| No difference | 13.8 |
| Did not answer | 0.3 |

Answers to the question, ‘did any member of your family in 1997 have to refuse drugs prescribed by physician because there was not enough money in the family budget?’

| Answers | Answer distribution |
|----------------|---------------------|
| Yes | 40.9 |
| No | 59.0 |
| Did not answer | 0.1 |

Answers to the question, ‘did any member of your family have to refuse medical examination because there was not enough money in the family budget?’

| Answers | Answer distribution |
|---------|---------------------|
| Yes | 29.9 |
| No | 70.1 |

Answers to the question, ‘did any member of your family have to refuse dental care because there was not enough money in the family budget?’

| Answers | Answer distribution |
|---------|---------------------|
| Yes | 35.5 |
| No | 64.5 |

Answers to the question, ‘did any member of your family in 1997 have to refuse treatment at a hospital because there was not enough money in the family budget?’

| Answers | Answer distribution |
|----------------|---------------------|
| Yes | 12.8 |
| No | 87.1 |
| Did not answer | 0.1 |

Social characteristics of the surveyed households

Household groups, by total number of members

| Quantitative composition | Answer distribution |
|--------------------------|---------------------|
| 1 person | 8.3 |
| 2 persons | 22.0 |
| 3 persons | 30.3 |
| 4 persons | 26.2 |
| 5 persons | 9.3 |
| 6 persons and more | 3.9 |

Household groups, by member age-mix

| Household members' age | Answer distribution |
|---------------------------|---------------------|
| < 6 years of age | 18.2 |
| 7 - 14 years of age | 32.7 |
| 15 - 23 years of age | 38.3 |
| 24 - 59 years of age | 86.0 |
| 60 years of age and older | 32.8 |

Household groups, by educational background of their adult (> 16 years of age) members

| Education | Answer distribution |
|--|---------------------|
| Incomplete secondary education | 32.6 |
| Complete secondary education | 45.4 |
| Secondary technical (college) | 50.8 |
| Incomplete higher and higher education | 44.3 |

Households, by average per capita monthly income in December 1997

| Per capita average monthly income, x 1000 rubles | Answer distribution |
|--|---------------------|
| <400 | 51.6 |
| 401-800 | 31.7 |
| 801-2000 | 14.1 |
| >2000 | 1.8 |
| Did not reported their income | 0.8 |
| Total | 100 |

6. Regional distribution of the surveyed households

| Economic regions of Russia | Regions population/Russia's total population ratio | Households' average size, members | Surveyed regions/households' average size (# of members) | Household sample size |
|---|--|-----------------------------------|--|-----------------------|
| 1. Northern (5 regions) | 4 | 2.77 | Republic of Karelija/2.70 | 120 |
| 2. North-Western and Kalinyngrad Oblast (5 regions) | 6 | 2.70 | St. Peterburgh (53% of the district's population)/2.79 | 98 |
| | | | Leningrad Oblast/2.66 | 82 |
| 3. Central (13 regions) | 20.2 | 2.67 | Moscow (29% of the district's population)/2.74 | 175 |
| | | | Tula Oblast/2.61 | 215 |
| | | | Orel Oblast/2.76 | 216 |
| 4. Volga-Viyatsk (5 regions) | 5.8 | 2.77 | Nizhny Novgorod Oblast/2.69 | 174 |
| 5. Central-Chernozem (5 regions) | 5.3 | 2.70 | Voronezh Oblast/2.68 | 159 |
| 6. Volga (8 regions) | 11.5 | 2.87 | Volgograd Oblast/2.82 | 357 |
| 7. Northern Caucuses (10 regions) | 12 | 3.15 | Stavropol Krai/3.07 | 360 |
| 8. Urals (7 regions) | 13.8 | 2.87 | Kurgan Oblast/2.76 | 400 |
| 9. West Siberia (7 regions) | 10.2 | 2.92 | Tumen Oblast/3.04 | 304 |
| 10. East Siberia (6 regions) | 6.2 | 3.02 | Krasnoyarsk Krai/2.87 | 190 |
| 11. Far East (9 regions) | 5 | 2.95 | Khabarovsk Krai/2.94 | 150 |
| Total: | 100 | Russia, average 2.84 | 14 regions/2.78 | 3000 |