Health service utilisation in the Former Soviet Union: evidence from eight countries

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Abstract

Key words

Introduction

A decade after the transition from communism, health systems in the countries that emerged from the Soviet Union have moved, at different speeds, away from the Soviet model of health care. The Soviet system was characterised by universal, free access to basic health services, centrally planned according to strict norms with the goal of achieving services of uniform quality in all parts of the Soviet Union. The events that accompanied the break up of the Soviet Union made it inevitable that this system would change, for two reasons. First, in many countries there was a widespread rejection of the Soviet model, with its symbolic association with the communist system. Second, in many countries, the economic collapse caused by the disruption of production and trading relationships and, in some cases, civil disorder, exacerbated by a widespread break down in the power of the state, meant that government revenues were no longer able to sustain the inherited system.[1]

The systems that have emerged vary considerably although all countries have formally retained the principle of universal access to care. Changes have been both planned and unplanned. Planned changes include a move to more pluralistic systems of both funding and delivery. New systems of funding have included shifts to health insurance and expansion of out-of-pocket payments.[2] Planned reforms of health care delivery include decentralisation of the organisation of the system.

However in many countries it is the unplanned changes that have been more important in shaping the new system. They include a substantial increase in informal payments in some countries[3] and a breakdown of existing systems for health system governance.

While there is extensive anecdotal evidence that access to care has suffered in this region, some small scale studies indicating how particular groups, such as those with chronic diseases, have suffered considerably,[4,5] and a multi-country study found that 0.6% of households in Kyrgyzstan and 3.9% in Ukraine faced catastrophic expenditure due to health costs in one year.[6] However there is, to our knowledge, no systematic research comparing how changes in different ex-Soviet countries have affected access to health care. This study begins to fill this gap by examining patterns of health system utilisation in eight former Soviet Union countries, exploring the socio-economic determinants of

utilisation and the extent of payment for health care, looking in detail at those who, despite illness, do not access health care.

Objective

The objective of this paper is to assess the extent to which universal access to care has been maintained in eight of the countries that emerged from the USSR. It is part of a larger study, on living conditions, lifestyle and health (LLH), undertaken within the European Union's Copernicus programme. The study included surveys in eight of the fifteen newly independent states - Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia and Ukraine.[7] Of the remaining countries, three (Estonia, Latvia and Lithuania) are on the verge of European Union accession and in the other four (Azerbaijan, Turkmenistan, Tajikistan, and Uzbekistan) survey research is extremely difficult and we were unable to identify local partners.

In this paper we examine the health seeking behaviour of two groups of people. The first are those who consult a health care provider (regardless of whether they have had experienced an illness), looking at the situations in which they consult, where, whether they pay for these services, and their views on when it is appropriate to seek care. The second group are those who, despite experiencing illness, did not consult, even though they felt they should have done so.

Methods

In the autumn of 2001 quantitative cross-sectional surveys were conducted in eight countries (Armenia, Georgia, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia and Ukraine), by local organisations with expertise in survey research, and using standardised methods.[8] The methods have been described in detail elsewhere.[9] In brief, each survey sought to include representative samples of the national adult population aged 18 years and over, although a few small regions had to be excluded because of geographic inaccessibility, socio-political situation or prevailing military actions: Abkhazhia and Osetia in Georgia, the Trans-Dniester region and municipality of Bender in Moldova and the Chechen and Ingush Republics and the autonomous districts located in the far north of the Russian Federation.

Samples were selected using multi-stage random sampling with stratification by region and area. Within each primary sampling unit, households were selected using standardised random route procedures, except in Armenia where random sampling from household lists was used. Within each household the adult with the nearest birthday was selected for interview.

It was decided to include at least 2000 respondents in each country, but to boost this number to 4000 in the Russian Federation and to 2500 in Ukraine to reflect the larger and more regionally diverse populations in those countries. The combined dataset contained valid data on health-seeking behaviour for 18,428 individuals.

The first draft of the questionnaire was developed in consultation with country representatives from pre-existing surveys conducted in other transition countries and from the New Russia Barometer surveys[10] adjusted to the national context. It was developed in English, translated into appropriate national languages, back translated to check consistency, and piloted in each country. The questionnaire covered a wide range of issues related to living conditions, lifestyle and health, supplemented by an extensive battery of questions on socio-demographic and economic characteristics, experience of and attitudes to political transition, psycho-social characteristics, and social networks and support. This paper utilises responses to questions on decisions to seek care, the circumstances of obtaining care, and coping strategies substituting for formal treatment in the health system.

The questionnaire was administered by trained interviewers using face-to-face interviews conducted in respondents' homes. Statistical analysis was undertaken using the Statistical Package for the Social Sciences (SPSS).

Results

Utilisation rates

In the preceding 12 months, in the sample as a whole, 52% of respondents visited medical doctor, 5% visited a medical assistant (feldsher), and 44% did not visit any health professional. When weighted for the differing populations of the countries, the corresponding figures for them as a regional grouping are 61.1%, 4.3%, and 34.7%

respectively. However the probability of attending a health professional in the previous year varied widely across countries, ranging from 65.7% in Belarus to 24.4% in Georgia (Figure **1**).

Affordability and access to care

The first step in interpreting these figures is to separate those who did or did not experience an episode of illness that they felt justified consulting a health professional. Overall, of those reporting an illness they felt justified seeking attention, 20.7% did not do so. The probability of not seeking attention when it seemed justified varied greatly among countries (Figure **2**). Only 9.4% did not seek care in Belarus while the corresponding figures were 42.4% in Armenia and 49% in Georgia.

The reasons cited for not seeking care, including alternative strategies to cope with the illness, among those who reported being ill but not obtaining care (n=2478), were explored in more detail. 77.8% of respondents cited one reason, and 21.8% two or more reasons for not consulting. The most important reason for not seeking care was lack of money to pay for treatment, at 45.2%. 32.9% reported self-treating with home-produced remedies and about a fifth (21.8%) purchased medicine directly from a pharmacist, without obtaining a doctor's prescription. Reasons such as long waiting times to see a health professional (8.8%), or lack of trust in the health system in general or health professionals in particular (7.7%) were less common reasons for not consulting.

These aggregate results mask dramatic differences between countries (Table 1). The countries appear to fall into three groups. The first consist of Armenia, Georgia and Moldova, where unaffordability was particularly common, with 33%, 23% and 13% respectively of those ill reporting being unable to afford to attend a skilled health worker. In Belarus, Russia and Kyrgyzstan, few of those reporting having been ill said that they had been unable to afford care. Kazakhstan and Ukraine occupied intermediate positions, with about one in ten people reporting illness unable to afford care. In most countries the combined percentage of those reporting not seeking care but instead either self-treating or buying something from a pharmacist was similar, with the precise division between the two options varying; the exceptions were Belarus and Kyrgyzstan, where these options were rarely used.

Another perspective on the relationship between health and expenditure can be obtained by asking whether the household had to do without necessary medical services or drugs in the previous year because of affordability. If the figures from Table 1 concerning not seeking treatment because of inability to pay are compared with the percentages reporting that they never have to do without medical care or drugs, then there is a generally consistent inverse relationship. The exception is Kyrgyzstan, where not having money to pay seems a very rare reason for not obtaining treatment when ill yet a relatively high proportion of households report having to do without either medical care or drugs at least sometimes. The explanation for this discordance is not obvious, as respondents from Kyrgyzstan are not more likely to self-treat.

Another perspective can be gained by looking at respondents' experiences in their most recent consultations. Overall, 31.2% of those who had consulted paid out-of-pocket, whether in the form of money, gifts or both. In 3.6% of cases a fee was paid, but by the employer, and 65% made no contribution. However, the figures vary widely among countries. As expected, the highest probability of making an out-of-pocket payment or a gift was in in Georgia and Armenia (65% and 56% respectively), with the lowest in Belarus and Russia, at 8% and 19% respectively (Figure **3**). Among those who reported the value of the payment or gift, the median amount was US$6.3.

Determinants of utilisation

Those who report being ill but do not consult are of particular interest. To understand their characteristics better, the analysis examined how the probability of not consulting when ill varied with a range of covariates that might be expected to exert an influence on health-seeking behaviour (Table 1). The probability of not consulting was highest among those over 65, those with lower educational attainment, or who were single, in all countries. There is also a clear relationship the material status, with the probability of consulting when ill increasing as the number of key household assets increased. The probability of consulting also increased with subjective measures of well-being, such as satisfaction with income and material living conditions. These subjective measures have, elsewhere, been found to correlate better with health-related behaviour than more

'objective' measures of income, a finding that is unsurprising given the widespread informal economy and non-monetary transactions in this region. [11]

It is also plausible that health-seeking behaviour will be influenced by factors related to what has become termed broadly as social capital, including the extent of social support available to the individual. There is some evidence that utilisation is less among those with the least social support, for example those who do not participate in organisations. Perceptions of freedom of choice or control over one's life have less marked relationships with utilisation.

Clearly many of these variables are inter-related. Consequently their influence was explored further by means of logistic regression, using SPSS. The dependent variable was the probability of not consulting a health professional among those reporting having been ill. As no obvious differences among countries were seen in the univariate analyses, at least in terms of the nature of relationship between potential explanatory variables and health seeking behaviour, an aggregated dataset was used. Independent variables to be entered into the model were selected from among the variables listed in, in the light of the univariate relationships exhibited, and of evidence from literature on the determinants of health-seeking behaviour. They were then grouped logically into several broad categories: socio-demographic (sex, age, education, and marital status); financial status (financial resources, number of assets, self-assessed financial status); and social support systems (a composite index of freedom of choice and control over life, membership of organisations, and a composite index of social support). The composite indices were taken from an earlier study using this dataset, looking at responses to transition. Each block was then entered stepwise, with forward selection according to likelihood ratio. Three models were created entering one to three blocks of variables. The results are shown in Table 4.

In the model containing socio-demographic variables, the probability of not seeking care increased with age, with those over 65 being more than three times more likely not to seek care compared to those under 35. Education was also important, with lower use among those with lower education. Gender and marital status were not independently important.

When financial factors were added to the model, the influence of age was reduced. Use of health care was markedly lower among those with fewer assets or shortage of money. The addition of variables related to social support increase explanatory power further, although also reducing the influence of age while maintaining the influence of financial status. Formal social support, defined as membership in organisations of any kind, is an important determinant of seeking care, as is the composite index of social support, while control over one's life was not important.

Care settings

In the Soviet system, primary care was provided in two types of facilities, district health post or policlinics (primarily for those not in employment, including children, pensioners and the unemployed, and occupational facilities, for those in employment. In six countries, more than 60% of those respondents who had received care in the previous year experienced their most recent contact with a health professional one of these settings, with most contacts taking place in district facilities (Figure 4). The exceptions were Armenia (53%) and Georgia (41%). In both of these countries, where as was shown in Figure 1, the overall probability of consulting was lowest, the explanation seems to be a much lower use of district facilities.

In Georgia, the lower use of district primary care facilities is, to some extent, counterbalanced by a much higher use of private facilities, with 16% of last contacts in this sector, compared with a maximum of 6% (Kazakhstan) in the other countries.

Utilisation in different hypothetical scenarios

The analyses so far have looked at actual behaviour in relation to episodes of illness, with the nature of the illness undefined (of necessity, given the vast range of possible conditions and the difficulty of categorising them for analysis). Another way to assess experience of obtaining care (combining information that respondents will have obtained from their own experiences and those of friends and relations) is to ask what they would do when faced with a range of common health conditions. The situations in which formal medical advice is most likely to be sought include fever lasting over three days (38%), abdominal pain (24%), and for chest pain (18%). Self treatment, including use of home

remedies and alcohol especially common in cases of cough, or diarrhoea, but is widely used for all complaints. Purchase of pharmaceuticals without prescription is also common, especially for headache, bad cough and diarrhoea.

Differences between countries were explored in more detail by focusing only on the three conditions perceived to be most likely to justify seeking care (chest pains, abdominal pains, fever lasting over three days). The probability of seeking care varies widely among countries. While in Belarus 56% would consult with a health professional where there was a prolonged fever, only 16% would do so in Armenia. (Figure **5**)

Health seeking behaviour was explored further by asking what someone should do if they were in need of urgent hospitalisation but they were told that there was a waiting list of several months. The most frequently mentioned course of action was to use of informal mechanisms, such as use of connections (36.7%) or offering health professionals money (28.5%). More transparent strategies such as seeking to persuade hospital staff or lodging a complaint scored much lower on the list. 7.8% would turn to alternative or traditional healers and 15.2% believed there was nothing they could do. The percentage of those saying they would pay or use connections varied (Figure **6**) but there was no clear pattern, so that the figures were similar in Belarus and Georgia, despite very different access to care in the two countries as shown by responses to earlier questions.

Discussion

The creation of the Soviet health care system was, by any standards, a remarkable achievement. Prior to the liberation of the serfs in 1861, health care in rural Russia was virtually non-existent. The situation began to change in 1864 when Tsar Alexander II initiated a system of local government, the Zemstvos, with responsibility for, among other things, health.[12] Yet while these entities achieved much, by the end of the nineteenth century the situation in many remote areas remained dire, as described eloquently by commentators such as Anton Chekhov. [13]

The Bolsheviks placed a high priority on health, initially emphasising prevention in the face of widespread epidemics of typhus following the civil war. Over time the Soviet government built up a widespread network of health facilities and while the quality of

care was always better in the cities than in rural areas,[14] it did manage to deliver universal access to basic care to an extremely dispersed population.[15] Yet by the 1980s the weaknesses in the system were already apparent.[16] The failing Soviet economy could not provide the increasingly technical model of health care emerging in the west. [17] Yet it still managed to provide at least basic care to all, an achievement that, in many of the newly independent states, would not survive the break-up of the Soviet Union.

This paper provides the first detailed comparative assessment of access to health care in a majority of the former Soviet Union. Its strength is its use of standardised questionnaires administered simultaneously, with large samples in eight countries, several of which have been the subject of virtually no such research until now. The samples appear largely representative of national populations in terms of common demographic variables although there does seem to be a slight under-representation of men in Armenia and Ukraine and of the urban population in Armenia and of the rural population in Kyrgyzstan, and the oldest age group are slightly over-represented in Armenia, Moldova and Ukraine. However comparisons with official data may be limited by the failure of some country data to fully capture post-transition migration and other factors18 and these deviations are minor and unlikely to affect the results significantly. However we cannot exclude the possibility that, as with all surveys in the former Soviet Union, it will have missed groups living on the margins of society who are especially difficult to reach. Consequently it is plausible that these findings underestimate the scale of problems that exist.

Its weaknesses are common to all population-based surveys of health care utilisation. To fully understand the process of seeking health care it is necessary to have detailed information on pre-treatment health status as well as utilisation. Furthermore, given the many factors other than simply health status that influence whether an individual will seek care for a particular condition, it is important to supplement quantitative data with qualitative research. Such research is being undertaken as part of the larger project within which these surveys were undertaken and will be reported subsequently. Another weakness is the use of 12 month recall periods, necessitated by the need to identify adequate numbers of people reporting illness in each country. Ideally, the samples would have been much larger and would have focussed on a period of only four weeks. Another

limitation is that respondents defined whether an episode of illness justified seeking health care; although in a survey this is the only feasible approach, clearly the criteria used will be shaped by expectations and experiences. Unsurprisingly, the probability of having an episode of illness that met these self-defined criteria varied, and in the way that would be expected, with 48% of the Georgian sample so responding, compared with 73% of the Belarusian sample. It is, of course, impossible to say whether respondents from Belarus are therefore overusing services or Georgians under-using them; it is, however, clear that the threshold for considering seeking care varies, with the barrier highest in the countries where the system seems to be functioning least well. This also implies that, as with the challenge of including hard to reach populations, the findings underestimate the scale of the problem where the situation is worst. However, the inclusion of questions about the hypothetical circumstances in which it is appropriate to seek care to some extent overcomes this limitation. The surveys also are not sufficiently large to yield meaningful sub-national results. For example, the implementation of health insurance has varied among regions in Russia[19] and it is highly likely that similar differences exist elsewhere.

The data confirm the impression that, while some countries have managed to maintain access to some form of care for most people, in others the situation is near collapse. In Belarus, a country that has undergone very little economic reform and has retained many features of the Soviet system, albeit in a situation of sustained economic decline and increasing isolation, health services remain affordable for virtually everyone. Two-thirds of households stated that they never had to do without health care because of cost, and this is in a country where the threshold for seeking care is much lower than the others. In contrast, in Georgia, a country that has suffered a civil war and where the government is not in control of some regions,[20] only 14% of households report never having to do without care because of cost. Access to care also seems to have remained generally affordable in Russia, by far the largest and wealthiest of the countries included. However national income does not explain the differences in access to care; in 2001 the gross national product of Russia was US$1,750 while that of Kyrgyzstan was US$280,[21] while the percentage of those reporting illnesses but unable to afford care was almost the same in the two countries, although as noted above, the responses to this question from

Kyrgyzstan are inconsistent with the other findings. The pattern of affordability of drugs is similar to that of access to care. Problems are less frequent in Russia and Belarus but few households in Armenia, Georgia, Kyrgyzstan or Moldova are entirely free of problems.

When the aggregate figures are broken down according to the characteristics of respondents it is apparent that there are substantial inequalities in each country. Thus, in Georgia and Armenia, among those in the group with fewest household assets, about two-thirds of respondents had not sought care despite being ill because they could not afford it. While the multivariate analysis confirms how, taking account of other variables, those with fewest resources are most disadvantaged, it also shows that financial resources are not the only factor and others, such as social support systems, play a role, an issue that will be returned to later.

In most countries the referral system appears to have remained intact, with most people receiving care in their local or workplace primary care facility. The exception is Georgia, where a relatively high proportion of the most recent visits have been in hospitals. This provides further evidence of the breakdown of the Georgian health system. This impression receives more support from the question on paying for care, with two-thirds of Georgian respondents paying or making a gift during their most recent consultation. Once again, the lowest figure is in Belarus, at fewer than 10%. Elsewhere we have shown that the phenomenon of informal payment is extremely complex, with its nature varying according to context[22]. Consequently, it is not possible to understand fully what is happening from a survey such as this. Instead, there is a need for more detailed qualitative and quantitative work to assess the scale of transactions, to identify who pays and who receives, and to drill down by means of interviews with givers and receivers to understand the true motivations of both parties. For now, however, it is sufficient to note that, throughout this region, such payments are widespread, justifying further research. It is also of interest to note that, despite the considerable variation in the frequency of paying in different countries, when faced with a hypothetical situation of being unable to obtain necessary treatment, the proportion of respondents saying they would either pay or use connections is relatively similar. Earlier work in Russia has shown the importance of using connections to obtain health care, especially among the higher socio-economic

groups, although the situation is not entirely clear-cut, as some less well-off families benefit by having a family member who is, for example, a driver for a senior doctor.[23] This social stratification is also apparent in the present study. While 25% of those with insufficient resources for nutrition would use connections, 53% of those with sufficient resources for luxuries would do so. As might be expected, those who are members of organisations are more likely to say they would use connections than those who are not (44% versus 35%). Unsurprisingly, there is also a difference in the proportion of respondents who would pay, although the gap is narrower, at 24% and 40% respectively.

The former Soviet Union is, with sub-Saharan Africa, one of only two major regions where life expectancy is currently declining.[24] The Soviet health system, despite its many weaknesses, did achieve basic universal coverage. While some of the Soviet Union's successor countries, such as the three Baltic republics (not included in this study) are now experiencing sustained economic growth and falling mortality, elsewhere the situation has deteriorated considerably and the prospects for the future are poor, with the situation especially adverse in the Caucasus republics (Armenia and Georgia). Yet even where the system still seems to be functioning, as in Belarus, there are no grounds for complacency. While recognising the need for caution in interpreting economic statistics in this region, Belarus' gross national product per capita has fallen by almost two-thirds in a decade; it seems unlikely that its social protection systems can be sustained in the medium term. In Russia, where there has been a relatively successful (at least compared with other post-Soviet republics) transition to health insurance, some vulnerable groups remain without coverage.[25] So far there has been relatively little research on how different groups have fared in the face of the changes to health systems in this region, with the notable exception of Russia.[26] Yet many of these countries face similar problems and there is scope for shared learning. This study seeks to facilitate this process.

Table 1. Percentages of those reporting illness not seeking care for different reasons

	No money to pay		Self-treatment		Bought medicine from a pharmacist		No trust in staff qualification		Visit takes too much time		Other	
	%	n	%	n	%	n	%	n	%	n	%	n
Armenia	32.9%	366	10.2%	114	4.2%	47	2.2%	24	0.6%	7	1.3%	15
Belarus	0.0%	1	2.2%	65	1.3%	39	0.5%	15	0.9%	28	0.7%	20
Georgia	22.9%	332	3.4%	49	8.2%	119	0.3%	5	0.9%	13	1.0%	15
Kazakhstan	7.3%	92	9.2%	116	6.7%	84	1.8%	22	2.3%	29	1.3%	16
Kyrgyzstan	2.4%	43	3.7%	65	1.5%	27	1.2%	21	0.6%	11	0.3%	6
Moldova	13.1%	127	9.5%	92	5.4%	52	1.2%	12	0.6%	6	0.8%	8
Russia	3.1%	42	13.2%	177	7.5%	101	3.9%	53	5.9%	79	4.8%	65
Ukraine	10.9%	118	12.7%	137	6.7%	72	4.5%	49	3.3%	36	3.7%	40

Note: each individual can cite more than one reason for not seeking care

Table 2 In the previous year did your household have to do without medical services or drugs (%)

	Medical services.				Drugs			
	constantly	sometimes	never	not applicable	constantly	sometimes	never	not applicable
Armenia	38.0	29.6	16.5	16.0	31.6	36.5	21.7	10.3
Byelorussia	4.5	22.6	67.2	5.7	7.4	30.6	56.3	5.7
Georgia	10.9	62.1	14.0	13.1	7.9	66.1	16.0	10.0
Kazakhstan	12.9	36.7	40.9	9.6	15.2	37.7	40.7	6.5
Kyrgyzstan	17.4	51.0	21.6	10.1	19.9	53.3	20.8	6.0
Moldova	17.4	55.8	19.3	7.5	17.5	56.3	19.9	6.3
Russia	11.3	27.4	53.4	8.0	16.8	32.0	45.5	5.7
Ukraine	25.3	37.3	29.2	8.2	27.4	37.9	28.5	6.2

Table 3. Covariates of being ill but not obtaining care

		Armenia		Belarus		Georgia		Kazakhstan		Kyrgyzstan		Moldova		Russia		Ukraine	
		%	Total N	%	Total N	%	Total N	%	Total N	%	Total N	%	Total N	%	Total N	%	Total N
Sex	Female	43.0	712	9.6	890	49.9	637	18.9	794	14.1	704	16.2	789	13.0	1805	19.8	1128
	Male	41.4	401	9.3	560	47.3	330	24.7	461	17.0	376	19.7	554	12.4	1197	19.5	640
Age group	18-34	29.1	251	5.5	401	22.4	152	15.4	435	10.4	395	10.3	321	7.9	825	9.6	415
	35-49	43.3	372	7.0	444	42.1	271	21.6	394	15.2	356	16.1	436	12.4	878	15.4	436
	50-64	44.6	222	12.5	319	56.3	293	24.1	266	17.2	163	22.1	317	13.7	728	24.2	466
	65+	51.9	268	15.4	286	64.1	251	30.0	160	24.1	166	23.8	269	19.1	571	28.4	451
Education	Higher	30.1	219	8.4	251	41.0	329	13.3	286	8.0	238	12.5	240	9.4	669	11.7	359
	Secondary vocational	39.7	282	7.8	477	51.7	242	22.6	452	22.3	287	16.4	379	11.7	948	16.6	537
	Secondary /incomplete higher	44.6	397	7.4	434	55.6	306	19.1	356	12.7	465	14.5	330	12.7	795	18.9	529
	Incomplete secondary	54.2	212	15.8	279	50.0	76	35.0	160	23.6	89	24.8	383	18.3	589	34.7	329
Marital status	Married/cohabiting	41.3	780	8.0	887	46.7	630	20.6	814	14.8	755	16.6	915	12.7	1856	17.6	1046
	Single	30.4	102	7.5	199	36.5	96	15.3	183	9.2	119	15.0	113	8.3	422	14.0	193
	Divorced/widowed	51.5	229	13.7	358	60.8	232	26.4	250	20.1	194	21.9	311	15.7	715	25.4	508
Religion	Russian Orthodox			9.2	1149	50.2	852					18.2	1190	12.5	2018	19.3	1195
	Muslim							17.1	469	12.6	785						
	Armenian	42.6	974														
	Other	51.1	47	10.7	131	36.7	98	24.6	564	21.0	238	12.2	49	11.3	240	17.0	200
	None	33.0	88	10.7	159	61.5	13	19.4	201	25	48	14.8	88	13.8	723	21.1	356
Possession of assets	5 assets	19.8	101	6.5	387	20.5	83	12.8	219	10.5	114	9.4	128	8.6	765	10.8	268
	4 assets	27.5	153	5.8	326	35.6	101	17.3	226	3.5	113	8.7	184	9.2	588	11.9	268
	3 assets	40.0	235	11.4	352	44.0	150	22.4	339	15.3	216	13.0	284	13.5	680	16.4	428
	2 assets	48.8	248	10.3	214	49.2	197	23.0	296	16.6	223	17.4	276	14.6	561	21.1	383
	1 assets	44.8	221	15.5	84	53.7	257	30.6	111	19.5	231	21.6	190	18.6	258	29.7	283
	No assets	61.4	153	21.4	56	66.9	166	36.0	50	17.6	182	31.3	252	30.4	112	47.2	53
Material living conditions	Money enough for durables/ luxuries	3.6	28	6.4	313	24.6	69	12.8	274	7.2	181	11.6	138	6.6	693	9.9	181

	Money enough for nutrition/basic items	31.9	486	9.7	969	42.5	433	18.8	780	15.1	642	15.4	805	12.9	1867	15.9	1002
	Money not enough even for nutrition	53.4	581	11.1	126	59.6	441	44.4	180	21.2	245	25.9	367	22.1	403	28.8	541
Self-assessed financial status	Very good/ Good	11.1	27	9.7	134	15	20	12.4	186	7.4	204	7.6	92	5.9	239	9.7	72
	Average	31.0	393	7.1	900	37.8	299	18.5	736	14.3	588	14.3	615	10.8	1682	14.9	685
	Bad	49.4	419	12.8	328	55.1	432	30.2	291	20.3	236	21.6	449	16.3	876	20.0	654
	Very bad	51.5	266	18.6	59	57.9	195	48.6	35	28.6	49	26.2	168	21.6	185	30.5	328
Freedom of choice & control over life	High	41.8	576	9.2	741	40.1	464	18.5	627	15.2	659	16.0	582	10.5	1361	18.4	636
	Medium	42.4	347	9.5	440	59.7	283	19.4	377	14.0	136	15.0	386	12.8	938	19.2	579
	Low	46.9	128	7.5	160	52.8	127	32.1	190	15.4	208	20.2	208	16.0	487	21.3	380
Membership of organisations	Yes	31.1	74	6.2	503	37.5	48	10.3	223	10.6	161	11.5	287	7.3	763	12.5	313
	No	43.2	1039	11.2	946	49.6	917	23.4	1032	15.9	919	19.3	1056	14.6	2233	21.2	1453
Support score	Extensive	30.7	231	7.3	586	28	175	12.3	407	11.5	453	11.4	298	8.7	971	12.4	468
	Good	37.7	268	5.7	209	41.5	130	20.9	254	15.9	138	15.3	249	11.2	492	18.0	256
	Some	48.9	229	11.3	151	57.1	112	32.3	167	15.3	137	16.0	237	13.2	423	24.2	219
	None	53.1	262	13.6	213	60.6	284	33.5	203	19.0	200	25.6	316	19.3	514	24.9	405
TOTAL		42.4	2000	9.5	2000	49	2022	21	2000	15.1	2000	17.7	2000	12.8	4006	19.7	2400

Table 4. Odds ratios of being ill and obtaining care: all countries (only variables included in the model shown)

		block 1: socio-demographic		block 1& 2: financial status		block 1, 2 & 3: support systems	
		Odds ratio	Odds ratio 95% CI			95% CI	
Sex	Female			1		1	
	Male			1.14	1.04-1.26	1.17	1.05-1.32
				p<0.01		p<0.01	
Age group	18-34	1		1		1	
	35-49	1.85	1.61-2.12	1.48	1.28-1.71	1.52	1.29-1.79
	50-64	2.49	2.16-2.86	1.75	1.51-2.04	1.57	1.32-1.87
	65+	3.18	2.73-3.69	1.83	1.57-2.13	1.63	1.36-1.96
		p<0.001		p<0.001		p<0.001	
Education	Higher	1					
	Secondary vocational	1.33	1.16-1.52				
	Secondary /incomplete higher	1.55	1.35-1.77				
	Incomplete secondary	1.50	1.29-1.74				
		p<0.001					
Assets	5 assets			1		1	
	4 assets			1.09	0.88-1.33	0.99	0.78-1.25
	3 assets			1.47	1.22-1.76	1.33	1.08-1.64
	2 assets			1.66	1.38-2.01	1.37	1.10-1.69
	1 assets			2.16	1.78-2.64	1.64	1.31-2.06
	No assets			2.92	2.35-3.61	2.35	1.84-3.02
				p<0.001		p<0.001	
Wealth	Money enough for durables/ luxuries			1		1	
	Money enough for nutrition/basic items			1.30	1.07-1.57	1.29	1.03-1.61
	Money not enough even for nutrition			2.35	1.88-2.94	2.34	1.81-3.03
				p<0.001		p<0.001	
Self-assessed financial status	Very good/ Good			1		1	
	Average			1.32	1.02-1.70	1.14	0.86-1.51
	Bad			1.69	1.29-2.21	1.45	1.08-1.95
	Very bad			2.01	1.50-2.68	1.73	1.25-2.40
				p<0.001		p<0.001	
Membership of organisations	Yes					1	
	No					2.26	1.89-2.70
						p<0.001	
Support score	Extensive					1	
	Good					1.43	1.22-1.69
	Some					1.70	1.44-2.01
	None					1.73	1.48-2.02
						p<0.001	

Figure 1. Probability of consulting a health care professional in the preceding 12 months, by country

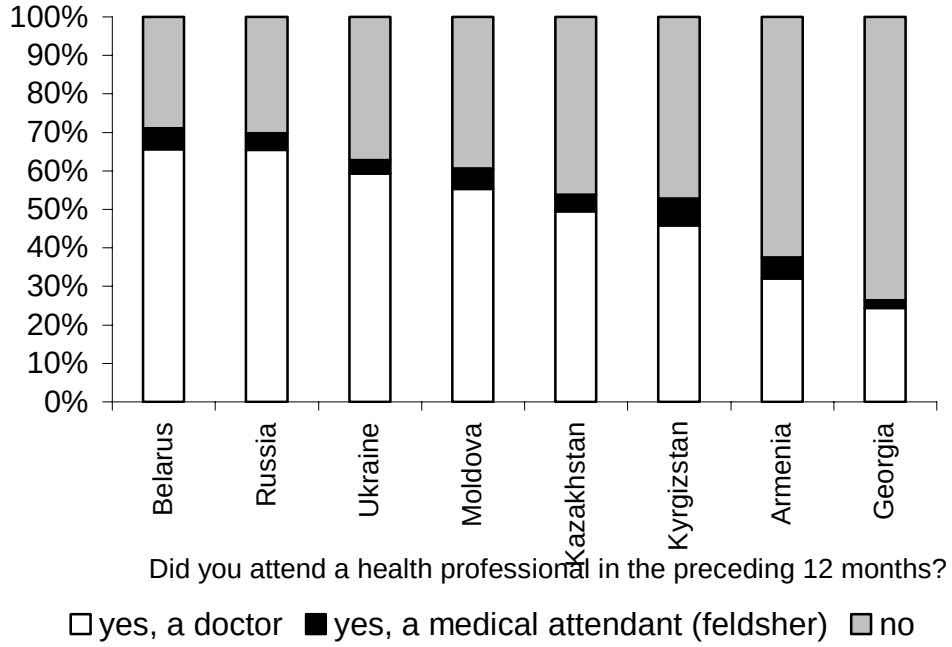


Figure **2**. Probability of consulting a health care professional (physician or feldsher) in the preceding 12 months, by country (of those reporting an illness they felt justified attendance)

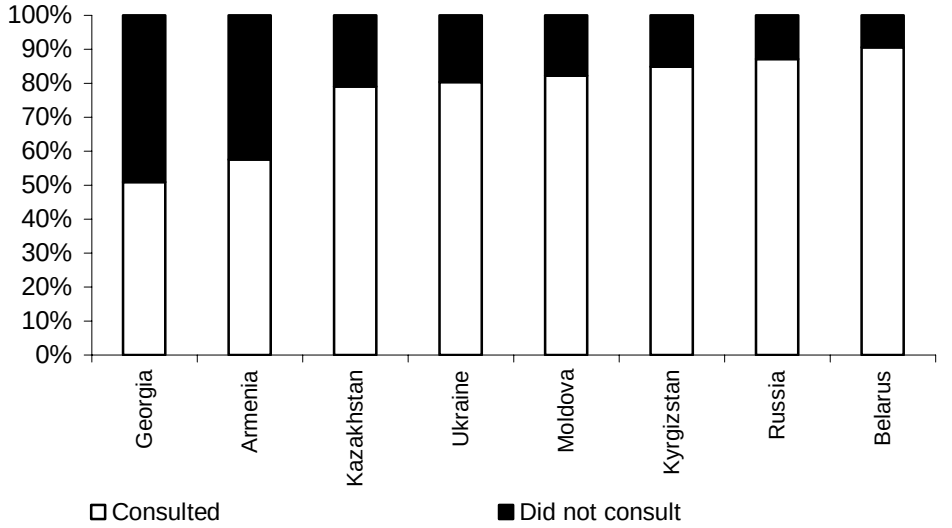


Figure **3** Percentage paying informally or making a gift during most recent consultation, by country

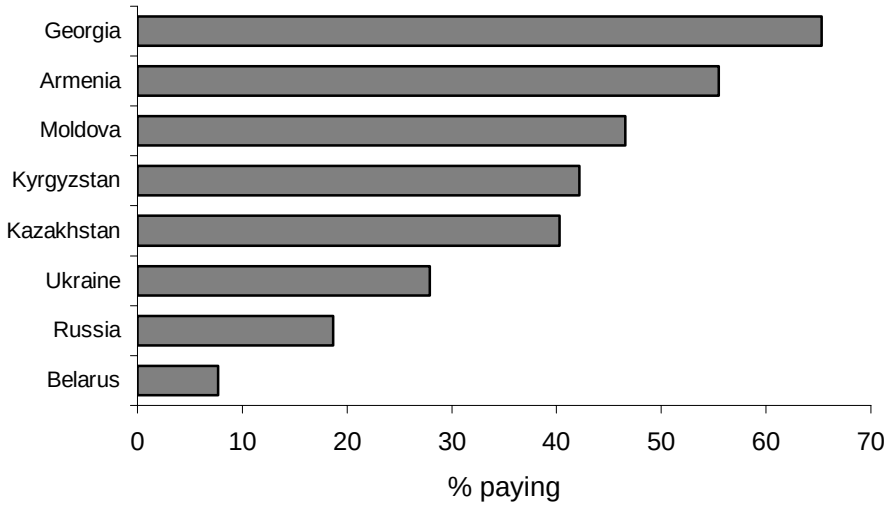


Figure **4**. Location of most recent encounter with a health professional

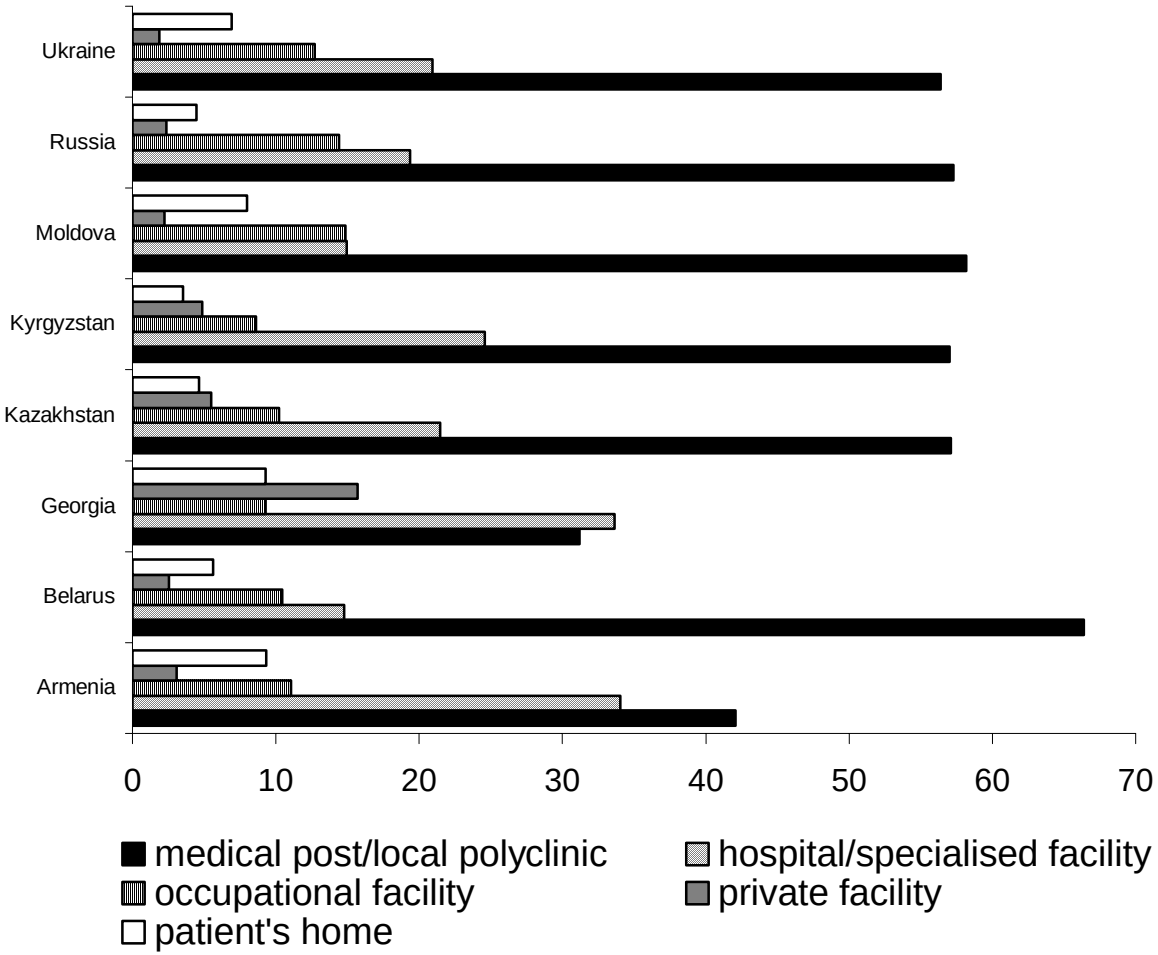


Figure **5** Would you consult a health professional in the case of … ?

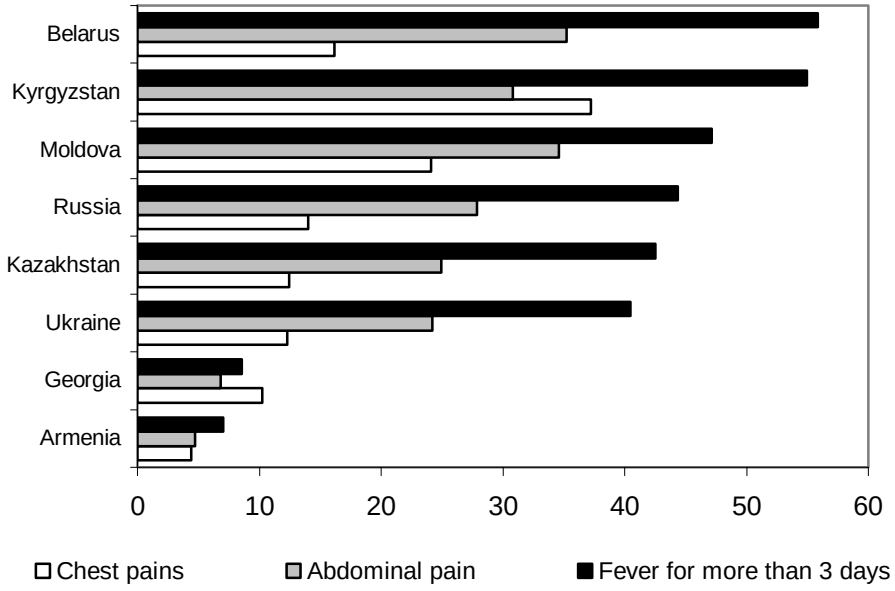
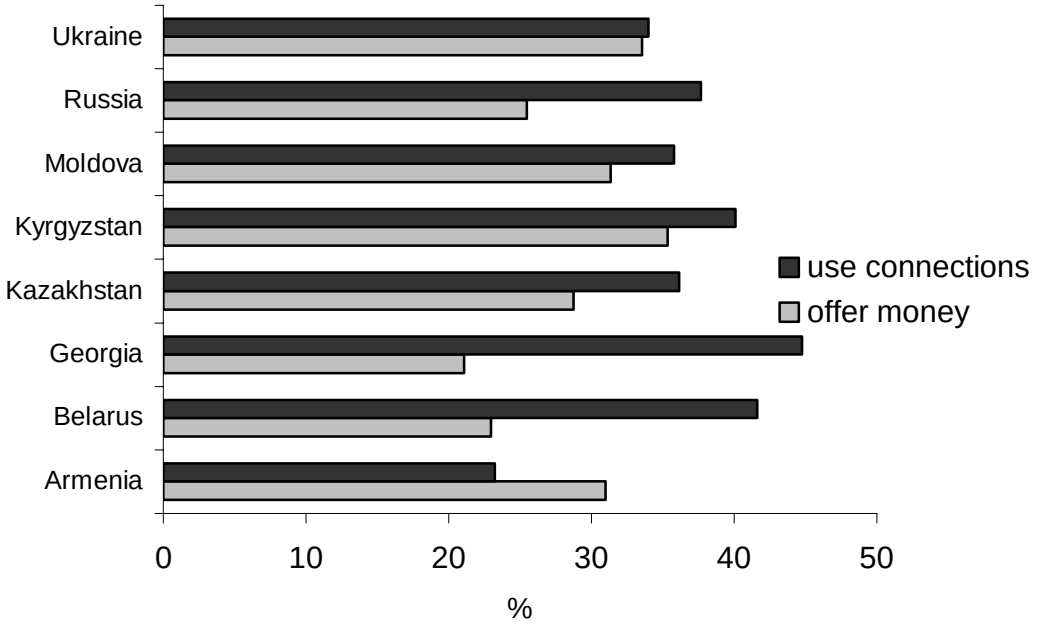


Figure **6** What would you do if you needed hospitalisation but were told there was a long waiting time?



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