Health care-seeking behaviour and out-of-pocket payments in Tbilisi, Georgia

GEORGE GOTSADZE,1 SARA BENNETT,2,3 KENT RANSON3 AND DAVID GZIRISHVILI1
1Curatio International Foundation, Tbilisi, Republic of Georgia, 2Abt Associates, Bethesda, MD, USA and 3Health Policy Unit, London School of Hygiene and Tropical Medicine, London, UK

Based on a household survey conducted in Tbilisi, Georgia, in 2000, this paper examines current patterns of health care-seeking behaviour and the extent of out-of-pocket payments. Results show that health care services are a financial burden and that private (out-of-pocket) payment creates financial barriers to accessing health services. Members of the poorest households are less likely to seek care than people from more affluent households, and devote a higher share of household monthly expenditure to health care. Households have adopted various strategies to overcome these financial barriers, but the strategies are likely to contribute to both declining economic status and worsening health outcomes. The paper provides an evidence base to help direct future policy reform in Georgia. Government needs to: (1) prioritize public financing of services for the poor, in particular through amending the Basic Benefit Package so that it better reflects the needs of the poor; (2) promote the quality and utilization of primary care services; (3) address the issue of rational drug use; and (4) consider mobilizing out-of-pocket payments on a pre-paid basis through formal or community-based risk pooling schemes.

Key words: health financing, care-seeking behaviour, transition economies

Introduction

Transition from a socialist system to a market economy caused economic recession and real GDP decline throughout Former Soviet Union (FSU) countries. A reduction in the size of the state sector and changes in the method of tax collection (towards personal income and corporate turnover/profit tax) has further eroded the tax base and resulted in substantial reductions of public revenues (Ensor and Savelyeva 1998). During the period 1992–96, there was a sharp decline in output in Georgia that resulted in the deepest economic dive among all FSU countries – a drop in GDP of 78% compared with the 1990 level (Bonilla-Chacin et al. 2003).

In 1995, in response to the economic crisis that brought public expenditures for health to a level of less than US$1 per capita, the government launched an ambitious health sector reform programme (World Bank 1996). The Government of Georgia introduced a new model for health care financing, combining social insurance, tax revenues and out-of-pocket payments. Health services are offered through a publicly financed primary care network, and the state also finances essential hospital care. While key health facilities remain in the public domain to ensure access in remote areas and access to specialized services, others have been privatized (MoLHSA 1999). Competition between providers has been introduced through contracts signed with new public financial intermediaries established at national and municipal levels.

Thus, Georgia moved away from a state-funded and input-based financing model to a purchaser-provider split and greater use of market mechanisms. Health care was to be predominantly funded through payroll taxes1 complemented by general and municipal budgets. However, a high unemployment rate, a large and growing informal sector, poor fiscal performance and a low level of budget revenues undermined government intentions in this respect. The constitutional guarantee to free health care was removed in 1995 and user fees were allowed formally either to co-finance services in the publicly financed benefit package or to pay for services not covered by public programmes. As a result of reforms, the Government of Georgia introduced four critical sources of funding for the health sector (Gotsadze and Dixon 2003):

1 payroll health taxes, introduced in 1995 to mobilize earmarked funds for the health sector;
2 state budget revenues, consisting of two parts: one being channelled through major health service purchasers in the country and the other allocated to various government entities that own health care facilities, e.g. Ministry of Interior, Ministry of Defense etc.;
3 local taxes, providing financial resources for municipalities to finance health services; and
4 private contributions, consisting of (a) formal co-payments (for publicly insured services), (b) fee-for-service (for services outside the basic package), and (c) private insurance premiums collected by private insurance companies.
Public sources are pooled in three main risk pools: (1) Department of Public Health (DPH), which mainly pays for essential public health services and receives funds from the general budget; (2) the State United Social Insurance Fund (SUSIF), which is a single national-level risk pool for personal care that collects social insurance contributions (payroll taxes) and also receives central budget transfers; and (3) Municipal Health Funds (MHF), which purchase preventive and public health services for municipality residents with the funds from municipal budgets.

Along with reforms in health care financing, Georgia gave considerable autonomy to health care providers, who can now be selectively contracted by public purchasers. Some providers moved from the public to the private domain. Almost all pharmacies and dental clinics are now privatized, and a limited number of outpatient clinics and hospitals changed from public to private ownership. Significant numbers of new private providers emerged based on private investments (though mainly in the capital of the country, Tbilisi, and some big cities). While the necessary structural changes for a purchaser-provider split were implemented, and services to be publicly funded were defined, adequate public funding of the sector was not, and still is not, forthcoming due to poor fiscal performance of the government. Erratic financing from the state budget, and poor planning and administration of payroll tax revenues, contributed to the accumulation of debt to providers and impeded financial stability of health care providers and health care financing in general (Gotsadze and Dixon 2003). Multiple reports have documented a significant reliance on out-of-pocket payments, both formal and informal, in the Georgian health care sector (Zoidze et al. 1999; Gamkrelidze et al. 2002; Lewis 2002; World Bank 2002; Belli et al. 2004).

This paper, which is based on the findings of a household survey conducted in Tbilisi in 2000, analyzes the health care-seeking behaviour of the population and the extent of out-of-pocket payments. Tbilisi, the capital of Georgia, houses almost a third of the country’s citizens and has an extensive network of health facilities, including polyclinics, private practices and teaching hospitals.

While some similar studies have been published for other transitional countries – Bulgaria (Balabanova and McKee 2002a), Kazakhstan (Ensor and Savelyeva 1998; Sari et al. 2000), Tajikistan (Cashin 2004; Falkingham 2004), Russia (Blam and Kovalev 2003) – this is the first to present findings from Georgia. Furthermore, the paper contributes to the literature through a detailed assessment of care-seeking behaviour, and particularly choice of provider and use of multiple sources of care.

### Methods

This was a cross-sectional study, with one-stage cluster sampling and a total sample size of 2500 households. The sampling of households was stratified in a way that the number of households sampled in each of Tbilisi’s 11 districts was directly proportional to the number of households in the district (7.3 households per 1000 population). The survey aimed to reach a 2500 sample size, thus after three re-calls a replacement household was selected following the sampling procedures defined for the study.

The survey instrument was developed based on a review of similar surveys conducted in other parts of the FSU and elsewhere. The instrument allowed the researchers to capture instances where multiple sources of health care were utilized for one illness or condition. This practice (utilizing multiple sources) was thought to be widespread in Tbilisi and was formerly un-documented. The instrument also captured: (a) general information about the household and its members; (b) health care utilization and resulting expenditures; and (c) household wealth and monthly consumption in order to determine socioeconomic status.

Field work was conducted over a 3-week period in autumn 2000 by a private company with 50 trained surveyors. While the enumerators observed that in general respondents found the questions straightforward to answer, it was noted that they sometimes had difficulty in recalling precisely the amounts paid for services. Data were recorded and analyzed in SPSS 10.0. No weighting was required, as the probability of sampling was roughly homogenous. Most estimates in the paper are presented with 95% confidence intervals. When comparing between the means for two different populations, the two-sample t-test was used. When comparing between the means for more than two populations, the One-Way Analysis of Variance (ANOVA) was applied. Categorical data are compared with the Pearson chi-square test. The socio-demographic determinants of health seeking behaviour were examined by means of multiple logistic regressions of responses from those who reported an illness during the 30-day period prior to interview.

Income groups were determined based on household monthly consumption quintiles (Yemtsov 1999), and were used throughout to compare various indicators by rich and poor.

### Results

A total of 9773 individuals resided in the 2500 households surveyed. Of the surveyed households, 88.9% (n = 2500) were of Georgian ethnicity followed by Armenian (6.2%), Russian (1.4%), Kurd (0.9%), Ossetian (0.7%), Azeri (0.3%) and other groups (0.5%). This was comparable with a recent reproductive health survey conducted in Tbilisi (Serbanescu et al. 2001). Population distribution by age group was comparable with State Department of Statistics data (SDS Georgia 2000). Average household size was 3.88 (CI 3.85; 3.99).
Self-reported morbidity

The survey instrument captured the existence of acute diseases or the exacerbation of chronic diseases that occurred during the 30-day period prior to interview. Exacerbation of chronic disease or occurrence of any other acute health problem was reported among 1828 (18.7%) individuals. Among these people, 95.6% had only one problem during the month preceding the interview, 4.0% mentioned two health problems and only 0.4% presented with three problems. A total of 1917 cases of health problems was registered during the 30-day period prior to the survey, thus the incidence rate was 196.15 per 1000 population.

Multivariate analysis of the influence of socio-demographic variables on reporting any illness is presented in Table 1. Larger household size and being male had a negative and statistically significant influence upon reporting illness. Also, when other variables were held constant, odds of reporting illness decreased with age, more so for the 15–65 age group than for other age groups. Residents of wealthier households had higher probability of reporting illness and these findings were statistically significant from the third to the richest quintile groups. Educational attainment of the household head did not reveal any significant influence on reporting illness, with the exception of those households where the head had completed higher education compared with those where the head had no education.

Overview of health care-seeking behaviour

Figure 1 provides details of care seeking for the reported 1917 cases of illness. Some sort of treatment was administered in the majority, 89%, of cases. However, in 211 cases, the illness was not treated at all. Out of the 1706 cases that sought some type of treatment, 32.5% went to a health care provider and 67.5% self-treated. The influence of various socio-demographic variables and perceived seriousness of illness on the decision of whether or not to seek care was analyzed with multivariate logistic regression. The findings are provided in Table 2.

Increased income, age and perceived seriousness of the illness were all statistically significant factors increasing the probability of seeking care. The oldest group of

Table 1. Logistic regression showing variables influencing the odds of reporting illness during 30-day period prior to interview

<table>
<thead>
<tr>
<th>Explanatory variables</th>
<th>Odds ratio (CI 95%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of household members (continuous)</td>
<td>0.83 (0.81–0.86)**</td>
</tr>
<tr>
<td>Male (Reference group female)</td>
<td>0.66 (0.60–0.74)**</td>
</tr>
<tr>
<td>Age group (years)</td>
<td></td>
</tr>
<tr>
<td>0–3</td>
<td>1.00</td>
</tr>
<tr>
<td>4–14</td>
<td>0.75 (0.62–0.90)**</td>
</tr>
<tr>
<td>15–65</td>
<td>0.50 (0.41–0.60)**</td>
</tr>
<tr>
<td>66+</td>
<td>0.81 (0.65–1.00)*</td>
</tr>
<tr>
<td>Education level</td>
<td></td>
</tr>
<tr>
<td>No education or secondary school</td>
<td>1.00</td>
</tr>
<tr>
<td>Completed technical education</td>
<td>0.95 (0.79–1.14)</td>
</tr>
<tr>
<td>Completed higher education</td>
<td>0.85 (0.73–1.00)*</td>
</tr>
<tr>
<td>Incomplete higher education</td>
<td>0.87 (0.68–1.10)</td>
</tr>
<tr>
<td>Income quintile</td>
<td></td>
</tr>
<tr>
<td>Poorest</td>
<td>1.00</td>
</tr>
<tr>
<td>2nd</td>
<td>1.04 (0.88–1.22)</td>
</tr>
<tr>
<td>3rd</td>
<td>1.26 (1.07–1.48)**</td>
</tr>
<tr>
<td>4th</td>
<td>1.27 (1.08–1.49)**</td>
</tr>
<tr>
<td>Richest</td>
<td>1.36 (1.17–1.60)**</td>
</tr>
</tbody>
</table>

*p < 0.05; **p < 0.01.

*Reference category.
individuals (aged 66 years and older) were three times more likely to seek care than the youngest group (aged 0–3 years) (2.79, CI 1.47–5.28, p<0.01). Also, patients who perceived their illness to be moderately serious had higher odds (3.35, CI 2.28–4.49, p<0.01) of seeking care and, to a lesser degree, so did those who perceived their illness to be very serious (1.90, CI 1.23–2.93, p<0.01).

The richest were almost five times more likely (4.79, CI 3.04–7.57, p<0.01) to seek care than the poorest quintile. Education, gender of the patient and size of the household did not reveal any statistically significant influence on such decisions.

Medical services were used in 554 cases and these individuals reported utilization of 707 different services. Figure 2 shows utilization patterns across various service providers. The first level represents the first provider from whom care was sought. Level 2 shows the second provider (according to first choice). Similarly, level 3 presents the third level providers of care. The most common care-seeking route was first to consult a specialist (52.3% of cases), and from there to move to diagnostic tests. The next most common source of care was to consult a district doctor in the first instance (25.5% of cases).

Table 2 examines the influence of different variables on the decision to seek care from a medical provider versus self-treating. Children (0–3 years old) were almost five times more likely (0.22, CI 0.13–0.36, p<0.01) to be taken to a medical provider than patients from the oldest age group (66 years and older), who preferred to self-treat. The decision to visit a medical provider was significantly influenced by the economic situation of the household and increased from the poorest to the richest quintiles (see Table 2). Nevertheless, the seriousness of the disease had the strongest influence on such decisions when all other variables were controlled. Those who perceived their illness to be very serious were most likely (5.41, CI 3.63–8.08, p<0.01) to seek care from a medical provider. Increasing the size of the household by one person decreased the odds of seeking care from a medical provider by 11% (0.89, CI 0.84–0.94, p<0.01). Education and the gender of a patient did not reveal any statistically significant influence on these decisions.

Table 3 examines exclusively those who sought care from a provider and analyzes the impact of demographic variables on choice of provider (e.g. district doctor, specialist, diagnostic centre, ambulance, nurse). All care-seeking actions (i.e. including first, second and third consultations) are included in the analysis.

The type of provider consulted varied significantly between income groups, with those in the poorest quintile most inclined to use district doctors and more prone to call an ambulance (20.9%). The richest quintile were most likely to approach a specialist and use diagnostic services. A statistically significant difference in provider utilization patterns was found between patients with chronic and acute health problems. The services of a district

### Table 2. Logistic regression showing variables influencing the odds of care-seeking behaviour among those reporting being ill during the 30-day period prior to interview

<table>
<thead>
<tr>
<th>Explanatory variables</th>
<th>Seeking any care vs. no care at all</th>
<th>Visiting medical provider vs. self-treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Odds ratio (95% CI)</td>
<td>Odds ratio (95% CI)</td>
</tr>
<tr>
<td></td>
<td>(n = 1917)</td>
<td>(n = 1706)</td>
</tr>
<tr>
<td>Number of household members (continuous)</td>
<td>0.97 (0.91–1.05)</td>
<td>0.89 (0.84–0.94)**</td>
</tr>
<tr>
<td>Perceived seriousness of disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not at all serious(^a)</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Moderately serious</td>
<td>3.35 (2.28–4.49)**</td>
<td>0.98 (0.69–1.40)</td>
</tr>
<tr>
<td>Very serious</td>
<td>1.90 (1.23–2.93)**</td>
<td>5.41 (3.63–8.08)**</td>
</tr>
<tr>
<td>Male (Reference group female)</td>
<td>0.79 (0.58–1.07)</td>
<td>1.24 (0.98–1.56)</td>
</tr>
<tr>
<td>Age group (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0–3(^a)</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>4–14</td>
<td>1.85 (1.11–3.11)*</td>
<td>0.39 (0.27–0.58)**</td>
</tr>
<tr>
<td>15–65</td>
<td>1.06 (0.65–1.72)</td>
<td>0.18 (0.11–0.28)**</td>
</tr>
<tr>
<td>66+</td>
<td>2.79 (1.47–5.28)**</td>
<td>0.22 (0.13–0.36)**</td>
</tr>
<tr>
<td>Education level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No education or secondary school(^a)</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Completed technical education</td>
<td>1.60 (0.97–2.63)</td>
<td>1.24 (0.82–1.89)</td>
</tr>
<tr>
<td>Completed higher education</td>
<td>1.40 (0.72–2.72)</td>
<td>1.21 (0.68–2.14)</td>
</tr>
<tr>
<td>Incomplete higher education</td>
<td>1.40 (0.93–2.12)</td>
<td>1.10 (0.77–1.59)</td>
</tr>
<tr>
<td>Income quintile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poorest(^a)</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>2nd</td>
<td>1.83 (1.23–2.72)**</td>
<td>1.25 (0.85–1.83)</td>
</tr>
<tr>
<td>3rd</td>
<td>3.76 (2.38–5.94)**</td>
<td>1.77 (1.22–2.56)**</td>
</tr>
<tr>
<td>4th</td>
<td>3.64 (2.33–5.70)**</td>
<td>1.61 (1.11–2.32)**</td>
</tr>
<tr>
<td>Richest</td>
<td>4.79 (3.04–7.57)**</td>
<td>2.51 (1.76–3.57)**</td>
</tr>
</tbody>
</table>

\(^a\)Reference category.

\(^*\)p < 0.05; **p < 0.01.
doctor were used in only 9.6% of cases with chronic health problems compared with 25.3% for acute cases. For chronic cases, specialists predominated; however, there was also a surprisingly high use of ambulance services.

Expenditures on medical services

Household expenditures on medical care were analyzed separately for those self-treating and for those seeking outpatient services. Hospitalizations were removed from the analysis, as there were only 19 cases of hospitalization during the 30-day recall period. For those who self-treated and had some expenditure, the average amount spent was 13.32 Lari. Of this amount, on average 10.5 Lari was spent on drug purchases and the rest for other purposes (e.g., self-prescribed diagnostic services). Differences in the amounts spent on self-treatment by different income quintiles emerged, with the richest quintile spending almost twice as much as the poorest (see Table 4). Outpatient services received from a provider had a higher mean cost – 48.22 Lari per consultation – than self-treatment (CI 38.86, 57.58; n = 622).

In absolute terms, higher consumption quintiles paid significantly more when seeking care than the poorest quintiles (see Table 4). However, the share of household monthly expenditure devoted to care-seeking is significantly higher among the poorest compared with the richest quintile (see Table 5).

Amongst poorer households, 30% of those seeking outpatient care stated that they were unable to meet health care costs compared with 11.6% in the richest quintile. Lack of financial means forced households to embark on various coping strategies. The most dominant strategy was to borrow from a friend or relative (70%), followed by selling household valuables (10%) and/or household goods/products (10%).

In 25% of the cases utilizing outpatient services, some or part of the treatment was offered free of charge. Those receiving free care were significantly older (mean age = 43.6 compared with 34.2, t = 4.139, p < 0.001) and were more likely to have chronic illness (30% vs. 20%; χ² = 8.14, p < 0.05). Distribution of free care appears progressive, with people in lower income quintiles being more likely to receive free services than those in richer quintiles (see Table 6).
For our study purposes, fees paid to the cashier were regarded as the official fee. Medicines in general are purchased outside of the health care facility and the cost of medicines was also treated as formal out-of-pocket expenditures. All other fees (provider fee, fees to other staff etc.) most likely constitute informal payments. Based on our findings, over half (54.5%) of expended funds went towards drug purchase, official fees accounted for 24.4% and ‘informal payments’ 21.1% of the total cost of outpatient care.

### Discussion

#### Methodological constraints

This survey relied upon respondents to recall the amount spent on health care services and also used respondent self-assessment of morbidity. This reliance on self-recall is somewhat problematic. First, respondents could not always recall amounts spent on different types of expenditure accurately. Further, using this technique, it is very difficult to get an accurate picture of formal and informal payments, and accordingly the findings presented here on this issue should be treated with caution.

The survey findings also suggested that a higher percentage of respondents in higher income quintiles experienced morbidity during the past 30 days than those in lower income groups. This is unlikely to be objectively true. While most surveys in developing countries that use externally observed measures of morbidity find higher levels of sickness among the poor, surveys such as this that rely on self-perceived morbidity frequently find the opposite (Gwatkin 2000). It has been suggested that the

### Table 3. Distribution of the utilization frequency of all services by the type of provider across gender, age and income groups, all levels (%R)

<table>
<thead>
<tr>
<th>Gendera</th>
<th>District doctor</th>
<th>Specialist</th>
<th>Diagnostic</th>
<th>Ambulance</th>
<th>Alternative</th>
<th>Nurses</th>
<th>Hospitalization</th>
<th>Other</th>
<th>Total</th>
<th>%</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>20.1</td>
<td>47.5</td>
<td>12.2</td>
<td>8.2</td>
<td>2.4</td>
<td>2.6</td>
<td>5.3</td>
<td>1.6</td>
<td>100.0</td>
<td>417</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>21.4</td>
<td>47.9</td>
<td>12.8</td>
<td>10.0</td>
<td>1.0</td>
<td>1.4</td>
<td>3.8</td>
<td>1.7</td>
<td>100.0</td>
<td>290</td>
<td></td>
</tr>
<tr>
<td>Age group (years)b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0–3</td>
<td>50.8</td>
<td>39.3</td>
<td>3.3</td>
<td>–</td>
<td>1.6</td>
<td>1.6</td>
<td>3.3</td>
<td>–</td>
<td>100.0</td>
<td>61</td>
<td></td>
</tr>
<tr>
<td>4–14</td>
<td>38.8</td>
<td>39.5</td>
<td>13.8</td>
<td>1.3</td>
<td>–</td>
<td>1.3</td>
<td>4.6</td>
<td>0.7</td>
<td>100.0</td>
<td>152</td>
<td></td>
</tr>
<tr>
<td>15–65</td>
<td>11.3</td>
<td>51.8</td>
<td>15.5</td>
<td>8.7</td>
<td>2.9</td>
<td>2.4</td>
<td>5.0</td>
<td>2.4</td>
<td>100.0</td>
<td>380</td>
<td></td>
</tr>
<tr>
<td>66+</td>
<td>11.4</td>
<td>49.1</td>
<td>5.3</td>
<td>24.6</td>
<td>0.9</td>
<td>2.6</td>
<td>4.4</td>
<td>1.8</td>
<td>100.0</td>
<td>114</td>
<td></td>
</tr>
<tr>
<td>Income quintilec</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poorest</td>
<td>26.9</td>
<td>41.8</td>
<td>7.5</td>
<td>20.9</td>
<td>–</td>
<td>–</td>
<td>1.5</td>
<td>1.5</td>
<td>100.0</td>
<td>67</td>
<td></td>
</tr>
<tr>
<td>2nd</td>
<td>27.6</td>
<td>45.7</td>
<td>12.4</td>
<td>9.5</td>
<td>–</td>
<td>1.0</td>
<td>3.8</td>
<td>–</td>
<td>100.0</td>
<td>105</td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td>23.2</td>
<td>45.7</td>
<td>13.9</td>
<td>8.6</td>
<td>2.0</td>
<td>0.7</td>
<td>3.3</td>
<td>2.6</td>
<td>100.0</td>
<td>151</td>
<td></td>
</tr>
<tr>
<td>4th</td>
<td>19.9</td>
<td>48.6</td>
<td>11.0</td>
<td>6.2</td>
<td>4.8</td>
<td>2.7</td>
<td>5.5</td>
<td>1.4</td>
<td>100.0</td>
<td>146</td>
<td></td>
</tr>
<tr>
<td>Richest</td>
<td>14.7</td>
<td>50.8</td>
<td>13.9</td>
<td>7.1</td>
<td>1.3</td>
<td>3.8</td>
<td>6.3</td>
<td>2.1</td>
<td>100.0</td>
<td>238</td>
<td></td>
</tr>
<tr>
<td>Type of health problemd</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic</td>
<td>9.6</td>
<td>53.4</td>
<td>10.6</td>
<td>13.0</td>
<td>3.4</td>
<td>2.4</td>
<td>6.7</td>
<td>1.0</td>
<td>100.0</td>
<td>208</td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td>25.3</td>
<td>45.3</td>
<td>13.2</td>
<td>7.2</td>
<td>1.2</td>
<td>2.0</td>
<td>3.8</td>
<td>2.0</td>
<td>100.0</td>
<td>499</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>20.7</td>
<td>47.7</td>
<td>12.4</td>
<td>8.9</td>
<td>1.8</td>
<td>2.1</td>
<td>4.7</td>
<td>1.7</td>
<td>100.0</td>
<td>707</td>
<td></td>
</tr>
</tbody>
</table>

| a $\chi^2 = 5.24, p = 0.711$. |
| b $\chi^2 = 145.19, p<0.001$. |
| c $\chi^2 = 51.98, p = 0.014$. |
| d $\chi^2 = 36.81, p < 0.001$. |

### Table 4. Mean costs for self-treatment and for seeking outpatient medical care

<table>
<thead>
<tr>
<th></th>
<th>Mean cost for self-treatment (Lari)</th>
<th>Mean cost for outpatient care (Lari)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (CI 95%)</td>
<td>n</td>
</tr>
<tr>
<td>Income quintile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poorest</td>
<td>8.1 (7.1–9.0)</td>
<td>202</td>
</tr>
<tr>
<td>2nd</td>
<td>10.7 (8.3–13.2)</td>
<td>185</td>
</tr>
<tr>
<td>3rd</td>
<td>10.7 (8.8–12.6)</td>
<td>216</td>
</tr>
<tr>
<td>4th</td>
<td>20.2 (13.9–26.4)</td>
<td>213</td>
</tr>
<tr>
<td>Richest</td>
<td>16.4 (13.1–19.8)</td>
<td>209</td>
</tr>
<tr>
<td>Illness type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic</td>
<td>12.7 (10.0–15.4)</td>
<td>212</td>
</tr>
<tr>
<td>Acute</td>
<td>13.5 (11.6–15.4)</td>
<td>813</td>
</tr>
<tr>
<td>Total</td>
<td>13.3 (11.72–14.9)</td>
<td>1025*</td>
</tr>
</tbody>
</table>

*Due to missing cases, the total number of cases that recalled cost of self-treatment was less than 1152.
poor are particularly likely to modify their perception of illness in order to avoid the economic costs associated with illness, including the cost of care seeking (Sauerborn et al. 1996). Thus, in Georgia, where health care is relatively expensive, the poor may be particularly likely to not recognize illness.

The situation in Georgia

The survey findings suggest that out-of-pocket payments, which were legally allowed in Georgia as a result of health sector reforms, have become financial barriers to accessing quality care and have had a substantial impact upon patterns of care seeking.

While the reforms that allowed out-of-pocket payments were certainly a contributing factor, they cannot be understood or addressed without reference to the broader context. During the past decade, government revenues from payroll taxes have been severely affected by rising unemployment,¹¹ and this situation is exacerbated by the fact that approximately 43% of those formally employed are government workers whose salaries are low¹² and frequently not paid on time. Poor fiscal performance and budgetary arrears further lowered the government resources, and finally, tax evasion, which is rampant in both the shrinking formal sector and the growing informal sector, also limits the scope for government budgetary financing. Combined, these factors had a very negative effect upon the government’s ability to finance the health sector: public spending on health ranged from 0.7 to 0.9% of GDP during 1997–2000 (Gotsadze and Jugeli 2002) compared with 7.8% in OECD countries (Bonilla-Chacin et al. 2003) and 2.6% in Newly Independent States (NIS) (Gamkrelidze et al. 2002). In this context, out-of-pocket payments for health care appear unavoidable.

Outpatient medical care costs incurred by those seeking care consume a significant proportion (17% on average) of household monthly budget and quite often force even better-off households into transitional poverty (World Bank 1999). Amongst the poorest quintile, those seeking outpatient care devote, on average, 23% of their monthly budget to medical care costs. Pharmaceutical costs consume over half of this amount (54.5%), while official fees account for 24.4% and ‘informal payments’ are on average 21.1%. Thus the major financing burden associated with outpatient care is due to the lack of any pharmaceutical benefit in the state-financed primary health care package. During the transition, Georgia liberalized and privatized drug supply, introduced laws governing the pharmaceutical market and developed an essential drug list, but it failed to introduce price control policies and/or offer drug benefits.

Of those choosing to visit a medical provider, 52% used specialists as the first point of contact (Figure 2), bypassing district doctors. This reflects the total breakdown of the primary care level gate-keeping function, which was operational during the Soviet period. Currently, only 21% of those who seek care visit district doctors, and this practice only predominates among children: 51% of the 0–3 years age group were taken to district doctors or nurses.

### Table 5. Percentage of household expenditure for outpatient services for those households that received services from providers

<table>
<thead>
<tr>
<th>Income quintile</th>
<th>n</th>
<th>Mean % (CI 95%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poorest</td>
<td>56</td>
<td>22.9 (19.6–26.2)</td>
</tr>
<tr>
<td>2nd</td>
<td>69</td>
<td>19.1 (15.5–22.6)</td>
</tr>
<tr>
<td>3rd</td>
<td>89</td>
<td>16.6 (13.5–19.3)</td>
</tr>
<tr>
<td>4th</td>
<td>84</td>
<td>12.6 (10.1–15.0)</td>
</tr>
<tr>
<td>Richest</td>
<td>112</td>
<td>14.5 (11.7–17.2)</td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
<td>16.5 (15.1–17.8)</td>
</tr>
</tbody>
</table>

ANOVA F = 6.315, p < 0.001.

<table>
<thead>
<tr>
<th>Income quintile</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receiving free care</td>
<td>674</td>
</tr>
<tr>
<td>Not receiving free care</td>
<td>674</td>
</tr>
</tbody>
</table>

χ² = 16.2, p < 0.05.

### Table 6. Percentage of persons within each income quintile receiving free care (%R)

<table>
<thead>
<tr>
<th>Income quintile</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receiving free care</td>
<td>674</td>
</tr>
<tr>
<td>Not receiving free care</td>
<td>674</td>
</tr>
</tbody>
</table>

ªNon in terms of the high degree of trust the public had to district doctors and 39% of children 4–14 years old. Qualitative research in Tbilisi has explained this phenomenon in terms of the high degree of trust the public had in the district paediatrician’s services, especially when compared with the services of internists® (Bennett and Gotsadze 2001). People facing acute health problems are more likely to seek services from a district doctor than those suffering from chronic illnesses. Thus those who are familiar with their chronic condition prefer to access specialist care directly than use a district doctor (53% seeking specialist care versus 10% seeking services of the district doctor). This care-seeking pattern amongst the chronically ill occurred despite the fact that specialists were a significantly more expensive source of care than district doctors or nurses.

¹¹ Eleven per cent of those falling sick (mainly the poor) do not seek care and 60.1% self-treat. Such decisions are influenced significantly by financial considerations, although the age of the patient and the perceived seriousness of the illness also contribute. Self-treatment is a cheaper option than visiting a health care provider, which explains the preference for self-treatment among the poorest quintile. Furthermore, weak enforcement of pharmaceutical regulations enables people to purchase even prescription drugs directly from pharmacies without a prescription (Gamkrelidze et al. 2002). Thus, on the one hand, the high cost of medical care, and on the other, the possibility of securing prescription drugs direct from the pharmacy, explain the popularity of the choice to self-treat.
Other qualitative research in Georgia suggests that
financial considerations, the perceived professionalism of
a provider and the geographic location of the provider
are the three main criteria influencing patients’ choice
(Belli et al. 2004). However, perceived professionalism and
financial considerations are intimately linked:

You have to choose a doctor based on his/her profes-
sionalism, otherwise [if the choice is for the cheapest
doctors] the treatment will not render expected results
and you have to face same costs once again.

(Belli et al. 2004)

One more finding regarding care-seeking behaviour
deserves attention. There was a surprisingly high use of
ambulance services amongst the poorest (21% of the
poorest used ambulances as a first resort) and amongst
the elderly (25%), while the wealthiest and younger people
were most likely to approach a primary care provider or
specialist (see Table 3). Ambulance services are signifi-
cantly more costly than the services of a district doctor
or a polyclinic specialist (14.4 Lari, 5.8 Lari and 6.0 Lari,
respectively). These findings suggest that the poor,
probably due to financial considerations, do not seek
treatment in a timely fashion and then have to call an
ambulance when the condition deteriorates significantly,
thus incurring higher financial costs. This finding is
worthy of further investigation.

While public subsidies for outpatient treatment appear
progressive (Table 6), they do not provide adequate
protection, particularly to the poor. The high cost of
seeking care seems to affect outpatient utilization rates.
According to national statistics, outpatient utilization
was reduced from, a very high, eight visits per person in
1990 to 1.3 in 2000 and is the lowest among all FSU
countries (NIS average being 8.3 in 2000) (Gamkrelidze
et al. 2002). When extrapolated for a 12-month period,
utilization rates documented by our study render compa-
rable results of 1.64 visits per person per annum. Thus,
state policies for health sector financing are not able to:
(a) protect the poor and assist them to cope
with the risks associated with illness; and (b) meet the
needs of the general public. The latter failure seems to
be due to a significant mismatch between the very
limited government resources devoted to health and
existing need.

Comparison with other transitional countries

The findings from Tbilisi bear similarities to those
reported in other transitional economies. Several analysts
in the region have noted that policies that have created
out-of-pocket payments have also contributed to financial
barriers (Lewis 2002; Sari et al. 2000; Ensor 2004;
Falkingham 2004). The evidence to support this observa-
tion takes multiple forms. Amongst those not seeking
care when sick, the inability to afford medical care is
frequently cited as a reason – by 33% of those not seeking
care in Tajikistan (Falkingham 2004), 21% in Uzbekistan
(Cashin 2001), compared with 39% in this Georgian
sample. Predictably, the burden of health expenditure is
much greater for low-income households than the most
affluent groups; for example, in Kazakhstan the cost of
a physician visit may be as high as 21% of monthly
income for the poor compared with just 6% for the rich
(Sari et al. 2000). In Tbilisi, household expenditure on
outpatient care for those receiving such services was
23% for the lowest income quintile compared with 15%
for the richest.

There is also evidence from elsewhere in the region that
financial barriers affect care-seeking behaviour, with the
non-poor most likely to use specialist facilities while the
poor typically use non-specialist primary care facilities
more (Falkingham 2004). These differences in patterns of
care seeking between the poor and the rich appear to be
more marked in this Tbilisi study than in many studies
elsewhere (e.g. Cashin 2001), perhaps reflecting the urban
setting of this study and the lack of importance of
ageographical barriers.

Over half of health expenditures amongst those seeking
outpatient care in Tbilisi went on drug costs, with a
relatively small component of expenditure on informal
payments (21.1% of the total). Other studies in the region
have also underscored the importance of drug costs
for those seeking care with, for example, about 50% of
expenditures in rural Uzbekistan being on drugs (Cashin
2001) and 39% in Tajikistan (Falkingham 2004). Informal
payments in these two countries appear to amount to a
slightly higher proportion of total outpatient expenditure
(30% in Uzbekistan and 39% in Tajikistan compared
with 21.1% in Tbilisi). However, given difficulties in
recalling precise expenditure patterns, and the complex-
ities of separating out informal payments from formal
ones, this data should be treated with caution.

Conclusions and policy options

This paper has analyzed the adaptive behaviours of the
people in Tbilisi in response to the steep payments
associated with seeking health care. The behaviours
found include:

(1) Self-treatment including self-prescription when drugs
(including prescription drugs) are freely available on
the market;
(2) By-passing primary care providers and seeking care
directly from specialists as this is perceived to offer
better value for money;
(3) Borrowing money and selling assets to cover medical
expenditures.

The first two of these strategies have negative implications
for the efficiency of the health care system and also give
rise to significant public health issues. The last strategy
is likely to have a significant impact on the economic
well-being of households, contributing to increasing
impoverishment and also to worsening health status.
Several authors have proposed strategies to help reduce the size of informal payments in order to improve access to health services in environments similar to Georgia (Balabanova and McKee 2002b; Barber et al. 2004; Ensor 2004). The limited public resources available for the sector, as a result of transition, mean that informal payments have become a critical source of provider revenue in Georgia, as well as in other countries in the region (Ensor and Savelyeva 1998; Blam and Kovalev 2003; Cashin 2004). According to Belli et al. (2004), informal payments in Georgia do not always mean additional cost to the patient and sometimes may have zero effect or even decrease the cost of accessing health care. Fee-for-service was formalized by the government in 1995, but the regulations are not strictly enforced and providers frequently appear to substitute informal fees for formal ones (Belli et al. 2004). Informal payments in Georgia are likely to decrease if and when public spending on health increases, and major restructuring of the sector to improve efficiency occurs. Increased public financing for health care is in turn contingent upon economic growth, increased employment and improved government capacity to enforce regulations. As such, it appears that getting rid of informal payments in the health sector is a long-term goal rather than a short-term solution.

In Georgia, however, it should be recognized that the cost of pharmaceuticals for outpatient care places a greater burden on outpatients than informal payments. Liberalization of the pharmaceutical market in Georgia has not been accompanied by appropriate policies to ensure rational drug use, and implementation of existing pharmaceutical regulations is extremely weak. It is unclear from the data collected in this study whether the observed high expenditures on pharmaceuticals were appropriate.

The findings of this study suggest four primary policy options that Georgia could pursue in order to improve the financial accessibility of outpatient services, particularly for the poor. First, the government should redefine the Basic Benefit Package to improve the targeting of subsidies to poorer segments of society. The Basic Benefit Package for health encompasses a large range of health services, including some which are not particularly cost-effective. Moreover, the resources allocated to financing the Basic Benefit Package are far from sufficient (Schaapveld 2000; Both 2002). Given the findings of this study, it appears urgent for the Government of Georgia to both improve the prioritization of services to be included in the Basic Benefit Package and to target subsidies better so that they protect the poor. For example, including drug benefits for the chronically ill in the Package would decrease the financial burden on the chronically ill who, due to ill health, are also likely to have limited earning power.

Secondly, the quality of primary care, and public perception of primary care quality, must be improved to increase the demand for primary health care services. The rigid gate-keeping role of primary care providers during the Soviet period continues to adversely affect current perceptions of primary care providers throughout much of the FSU (Ensor and Thompson 1999). Perceived low quality leads to bypassing in favour of more expensive hospital-based specialists. This behaviour reduces utilization rates at the primary care level, thus contributing to higher unit costs. Despite donor-supported projects on primary care in Georgia, much more remains to be done to improve quality and uptake of primary care services. As elsewhere in the region, further training for primary care providers is essential (Healy and McKee 1997), as are communication campaigns to improve public perception. Such a strategy could be pro-poor as it could encourage poorer households to seek cheaper services, and also could possibly contribute to improving the overall efficiency of the system.

Thirdly, the government should further investigate drug use practices in Georgia, and the extent to which they are rational. The widespread practice of self-treatment, including the use of prescription drugs which are available over the counter, has worrying implications for drug use and drug resistance, as well as contributing substantially to the high level of out-of-pocket payments. If found necessary, measures to educate the public about appropriate pharmaceutical use, as well as enforcing regulations to restrict access to prescription drugs to those who clinically need them, may be implemented.

A final option that the government might consider is to mobilize out-of-pocket payments on a pre-paid basis, through, for example, community-based health insurance schemes. While the international literature suggests that the effectiveness of this strategy is far from proven (Bennett et al. 1998), such schemes may have the potential to reduce financial barriers to health care at the time of need whilst protecting household assets.

Accompanying such strategies by those more widely discussed as potential measures to address informal payments – such as developing and disseminating a clear code of consumer rights, strengthening regulatory capacity of the government, and communicating clearly to consumers their entitlements – may offer some hope for the Georgian poor.

Endnotes

1 The system of revenue collection introduced in Georgia is often referred to as social insurance, although the revenues are not collected by independent funds nor are they kept separate from other legally mandated taxes. Therefore, in this paper we refer to payroll taxes rather than social insurance contributions.

2 SUSIF was created at the end of 2002 after merging the State Pension Fund and State Medical Insurance Fund (SMIC).

3 Based on the available literature (Fylkesnes 1993; Andersen 1995; Kunst and Mackenbach 1995; Newbold et al. 1995; Noro et al. 1999; Haagenars et al. 2001), household income, educational attainment at the level of household, household size, age and gender were used for the logistic regression.

4 Computed household monthly expenditures were adjusted both for differences in the consumption needs of different
individuals (the equivalence scale) and for economies of scale according to the State Statistic Department standard methodology.

The incidence rate was calculated by dividing the total number of disease incidences, 1917, by total population residing in the surveyed households.

This survey instrument questioned separately those who had only used self-treatment. It did not consider those who had used self-treatment plus other strategies involving care seeking from a health care provider.

1. Lari = Georgian national currency. In 2000, the exchange rate was 1.98 Lari to 1 US$.
2. This amount includes both formal and informal fees as well as any drug or treatment costs associated with the consultation.
3. This analysis does not include 19 cases of hospitalization with subsequent use of eight services, as described in Figure 2. And further, due to the missing 57 cases who were not able to recall the cost of an outpatient care episode, the total number of cases analyzed is less than the 707 cases of service utilization reported earlier in the paper.
4. Based on existing regulations in the country, all fees are expected to be paid to the cashier. Thus any direct transaction between the patient and provider was treated as informal. These findings should be treated cautiously as practices vary across facilities.
5. The unemployment rate increased from 11.7 to 15.2% during 1997–2000 (Telyukov et al. 2003).
6. The average monthly salary was 57.3 Lari (= US$28) (TACIS 2002).
7. Internists are district doctors for adults.

References


Health care seeking in Georgia 241
Disease Control, Republic of Georgia and U.S. Centers for Disease Control and Prevention.


Acknowledgements

This study was funded by the UK Government’s Department for International Development (DFID), and The World Bank Project Coordination Unit at the Ministry of Labor, Health and Social Affairs of Georgia. The study team would like to express their appreciation for this financial support. Also the authors would like to thank anonymous peer reviewers who offered valuable comments and suggestions.

Biographies

George Gotsadze, medical doctor by training, left medical practice in 1993 and since has been involved in health sector reforms in Georgia and the region of South Caucasus and Central Asia. He heads Curatio International Foundation, a not-for-profit agency, which is an active player in health sector reforms in the region. His research interest covers a broad range of health care systems issues, in particular health care financing, community-based health care financing, organization of health service delivery, private sector involvement in health care provision, and the financial implications of health care on the well-being of the poor and disadvantaged.

Sara Bennett, Ph.D, is a member of the Health Economics and Financing Programme at the London School of Hygiene and Tropical Medicine, and also a Senior Research Advisor for the Partners for Health Reform Project, Abt Associates Inc., Bethesda, Maryland, USA. She has conducted research on multiple aspects of health systems including health care financing, government capacity, and health worker motivation. She was resident in Tbilisi, Georgia at the time the survey reported here was conducted.

Kent Ranson, Ph.D., is a Clinical Lecturer in the Health Policy Unit, London School of Hygiene and Tropical Medicine, UK. He has a background in medicine, public health epidemiology and biostatistics. His Ph.D. thesis assessed the impact of two community-based health insurance schemes in Gujarat, India. He is currently based in Ahmedabad, India where he is assessing the impact of various interventions to help the SEWA medical insurance scheme reach the poor.

David Gzirishvili is Head of the Consulting Unit at Curatio International Foundation, Tbilisi, Georgia. He has been actively involved in health policy development in Georgia through research, legislation, and administration at macro- and micro-levels. After graduating from the Katholieke Universiteit Leuven with a Masters degree in social security, he has been working on inter-sectoral policy issues at central and local levels within the framework of poverty reduction and the Millennium Development Goals.

Correspondence: George Gotsadze, Ph.D., Director, Curatio International Foundation, 37a Chavchavadze ave., Tbilisi, 0162, Republic of Georgia. Tel: +995 99 50 10 75; Fax: +995 32 99 55 40; E-mail: G.Gotsadze@curatio.com