GEORGIA HEALTH UTILISATION AND EXPENDITURE SURVEY (HUES)

Results from a household survey on the use of health services and expenditure on health

Final Report

Georgia Primary Health Care Development Project, MOLHSA

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Abbreviations

DS	Department of Statistics, Ministry of Economic Development
GEL	Georgian Lari
GHSPIC	Georgia Health and Social Projects Implementation Centre
GoG	Government of Georgia
HA	Health Accounts
HUES	Health Utilisation and Expenditure Survey
IHS	Integrated Household Survey
MOLHSA	Ministry of Labour, Health and Social Affairs
NCDC	National Centre for Disease Control
OPM	Oxford Policy Management
PHC	Primary Health Care
WB	World Bank

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Executive Summary

The Health Utilisation and Expenditure Survey (HUES) took place in May/June 2007 and consisted of a nationally representative sample of 3,218 households. The objectives of the survey were: to estimate household health expenditure and compare this with the Integrated Household Survey (IHS) estimates to provide adjustment factors; to provide information on reported health status, use of services and user satisfaction; and to provide a baseline for reforms in primary health care and sector financing, both nationally and for specific 'pilot' regions where additional support is being provided.

A second round of the HUES is planned for 2009 and will provide follow-up information in each area.

National results

The key results of the baseline survey can be summarised as follows.

Illness
37% of individuals report being chronically ill and identify a wide range of conditions. About a third of occurrences (32%) are hypertension and other heart or circulatory system diseases. Some 16% had acute sickness during the last 30 days; respiratory and cardiovascular illnesses constitute more than half of the occurrences. The levels of sickness found in the HUES are substantially higher than in the IHS; this will probably be a consequence of the HUES focussing exclusively on health issues and so undertaking more detailed questioning on them.

Utilisation
In three fifths (59%) of cases of sickness during last 6 months a health care provider was consulted. Hospitals and polyclinics provide around 53% of all consultations, with village ambulatories providing around 10%; this rises to 20% in rural areas. Only around half of consultations were with providers that would be considered to be primary care providers, and there are ongoing difficulties in ensuring that individuals undertake consultations at an appropriate level. Some 40% of first consultations are with specialist doctors in non-PHC facilities, mainly in hospitals, and most of them are self referred.

The average number of consultations per person per annum with any healthcare provider is estimated to be around 2.0. This is broadly in line with estimates from routine statistical sources, although a detailed comparison identifies some inconsistencies, particularly over the level of use of ambulatory facilities. These differences need further investigation.

Satisfaction with services
Two thirds of respondents report a high trust in the facility that they usually use. Most users were reasonably satisfied with the services they received: some 82% reported that they were as involved as they wanted to be in decisions about their care and treatment; 91% had a consultation with the doctor of more than 12 minutes; and 81% reported that the doctor/nurse completely explained the reasons for the treatment they were given.

Access
Most people have access to health facilities within 30 min, even in rural areas. A small minority must travel much further. In most facilities, doctors are reported to be present for five or more days per week, although a quarter of respondents report that in ambulatory facilities doctors are present

less than 5 days. Most individuals found that the tests and medicines prescribed were available at or near the point of consultation.

Richer households are more likely to consult a health care provider when they are sick, although the differential is fairly small - 55% of the poorest households consulted a provider when they were sick in the last six months, compared with 64% of the richest. And for acute illnesses in the last month, there are no appreciable differences in the proportion who consult a provider by household income level. However, the poorest individuals are substantially more likely to report not using services because they were unable to afford them. Financial barriers to accessing care remain important, particularly for the poorest.

It is not clear whether these findings represent an improvement in the equity of service uptake by income level, because comparison with the last published national analysis is inconclusive. The earlier analysis was based on the 2001 IHS and there are concerns about comparability between the two instruments. An analysis of the 2006 IHS data might better address this issue.

Insurance cover
Less than 1.5% of the population is covered by private or employment-based insurance. Most health insurance coverage is provided through the exemptions given by the government through the 'State Program for the Population below the Poverty Line', which is reaching a significant fraction of the population. Some three quarters of the beneficiaries of the state programme are aware of the state health insurance that covers them. However, although not designed specifically to assess this, the HUES raises concerns about how effectively the benefits of this programme are being targeted at the poor, since many of the beneficiaries are not in the lowest income quintile.

Expenditure
Household health expenditure per capita is 216.2 Gel (129 USD) per annum, amounting to almost 6.4 % of GDP (2006). Total annual private expenditure on health is estimated to be 822.7 million Gel. However, the magnitude of this total is quite sensitive to assumptions about the total size of the population: adjusting to a total population of 4.3 million people gives an estimate of around 967 million Gel. The mean per person is unaffected by this issue.

Almost half (49%) of household expenditure on health is spent on drugs and medical supplies at retail pharmacies. A third (34%) is spent on hospital services and the remainder (17%) at outpatient facilities**.**

These estimates are significantly higher than estimates provided by the Integrated Household Survey and suggest an adjustment factor of around 3 is required to inflate HIS estimates. This is the consequence of the IHS dealing with multiple sectors and so not being able to collect such comprehensive and detailed estimates for the health sector.

Pilot regions

The survey provided estimates of utilisation as a baseline for the pilot regions where additional support is being provided to reforms. The pilot and non-pilot rural populations generally have broadly similar estimates of key measures. However, physical access to services appears to be better in the pilot regions, although utilisation when sick is slightly lower. A higher proportion of individuals expect to pay for a consultation in the pilot regions, and a slightly smaller proportion of users got a receipt for payments. Village meetings to discuss services at local rural ambulatory facilities are rarely reported in the pilot regions or elsewhere.

Integrated Household Survey

A number of areas were identified where the IHS design, questionnaires and analysis could be improved. They include revising the structure and classification of the information that is collected on health expenditure; improving the questionnaire format for questions on illness and the use of health services, and analysing the data obtained from it; reducing the duplication of information collected; adjusting estimates of health expenditure for under-reporting; and improving the sampling process. The Department of Statistics is currently revising the IHS, both questionnaire and sampling, and this provides a good opportunity to introduce these improvements. There will still be a need for separate, specialist health sector surveys periodically, since the IHS is a broad, multi-sector survey and cannot be expected to meet all of the survey-based information needs of the health sector. The next round of the HUES should benefit from the improved sampling that will be introduced.

1 Introduction

The government of Georgia (GoG) is engaged in a number of activities to further reform the health sector, including work to strengthen primary care. There is reform proceeding at the national level and more rapidly in a number of regions that are receiving additional support from external partners. These de facto 'pilot' regions are: Imereti, Adjara, Shida Kartli and Kakheti; Kvemo Kartli has also been added to this group. Information is needed to monitor the impact of reforms at national level and in these regions. The Ministry of Labour, Health and Social Affairs (MOLHSA) and its partners are also undertaking ongoing work on national health accounts, which has generated a need for detailed and reliable data on private health expenditure.

The GoG therefore decided to undertake a household survey to meet these needs, which gave rise to the Health Utilisation and Expenditure Survey (HUES). The baseline survey took place in May/June 2007 and this report outlines results. A follow up survey is scheduled for 2009.

The objectives of the survey were to:

- estimate household health expenditure
- compare this with the Integrated Household Survey (IHS) estimates and calculate adjustments
- provide information on reported health status, use of services and satisfaction
- provide a baseline for reforms in primary health care and sector financing (national, 'pilot' regions)

The baseline survey consisted of a nationally representative sample of 3,218 households. Some 3,395 households were sampled initially, implying a completion rate of 95%.

Table 1.1 Sample completion rate

	Frequency	Percent
Interviewed	3,218	94.8
Ineligible	65	1.9
Non-response	112	3.3
Total	**3,395**	**100.0**

The sample includes 2,859 households which had been sampled from households already interviewed in the Integrated Household Survey (IHS) and had information from that survey linked to their records. They constituted 89% of the total sample. For them, information on household consumption and expenditure was available from the IHS. This allowed an additional analysis of sickness, utilisation and expenditure by household consumption level, which provides a proxy for income and is the basis of poverty measurement in the IHS. For each household, information was used from the most recent quarter for which it had been interviewed under the IHS.[1]

[1] This is consistent with the approach currently used in analysing the IHS, in which each quarter of observations is analysed independently. It meant that consumption information was slightly out of date by the time of the HUES interviews, since households were sampled from those that had left the IHS over the

The sample also includes 1,504 households in rural areas of the pilot regions, agreed to be the relevant population for the baseline there, since the interventions are largely focussed on improving care in rural areas. More details on the sampling and analytical weights used are given in the annexes.

The questionnaire was structured into seven main sections, outlined in the table below. It listed all household members and asked about current and past sickness episodes, including chronic diseases. It collected, separately, information on sickness and use of services in three different time periods. This included information on all sickness and use of services in the last thirty days, to capture all expenditure in a defined time period. It also included the last use of services for anyone who had used services in the last six months, to provide a sufficient sample to ask about the experience of the users of various types of service. In addition, information on hospitalisation was collected for the preceding year.

Table 1.2 Questionnaire sections

Section of questionnaire	Unit covered
general information about the household and its members	per household member
health of household members	per household member
household's local health facilities	per household
last medical services used in last 6 months	completed for each household member who had a medical consultation (including preventive service) in the last six months
illness, services and expenditures on health in the last 30 days	completed for each person who has been sick, has used health services or has spent any money on health care in the last 30 days.
hospitalisation in the last year	completed for anyone who has been hospitalised within the last one year but not in the last 30 days
occasions when individuals were not hospitalised but should have been	per occasion

The questionnaire was developed by drawing on a number of existing questionnaires that had already been used in Georgia. The first draft was pre-tested extensively and improved as a result. Fieldwork was carried out by the Department of Statistics (DS) from April 29 through to June 12, 2007. It was implemented by a sub-set of the interviewers who normally conduct the Integrated Household Survey, after training sessions of four to five days. The training was conducted in multiple separate sessions led by central office staff who had been closely involved in the piloting of the questionnaire. Early field quality control visits identified some misunderstandings and

preceding five quarters. However, this was judged to be better than trying to collect consumption expenditure information independently in the HUES. This limitation should be borne in mind when interpreting the results of the analysis by household consumption level.

mistakes among interviewers that were then corrected. The fieldwork after this point was generally believed to have proceeded well, though a review found that the level of field supervision was too low – this should be increased in future surveys. Incoming questionnaires were checked for consistency by the central 'logical control' team and any problems identified were followed up with the field team. Double data entry was carried out and inconsistencies resolved, after which more general consistency checks were conducted.

The data was analysed with SPSS and the preliminary results were presented at MOLHSA on 20 September 2007.

The body of this report is divided into two main sections. The first deals with levels of illness and service utilisation. The second reports findings on household expenditure on health. The annexes provide additional information. This includes a more detailed tabulation of indicators for various population groups, including baseline estimates for the pilot regions. It also includes a comparison of information from the survey with that from the routine medical statistics system. Finally, details of sampling and weights in the HUES and the IHS are given, followed by confidence intervals for selected key estimates.

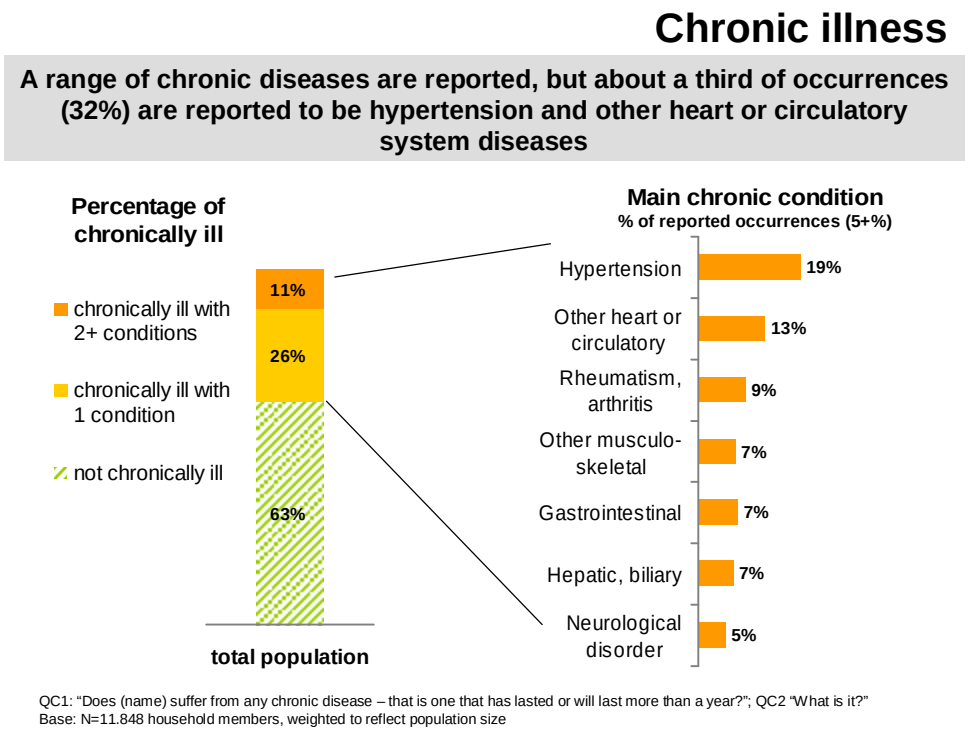
2 Illness and use of health services

2.1 Sickness rates and conditions

The survey asked respondents to distinguish between chronic and acute illnesses, with the former being defined as ones that had lasted or were expected to last more than one year. Accordingly, the results for the two are reported separately, starting with the prevalence of chronic illness.

The proportion of people reporting suffering from a chronic illness is high - 37% report it, with 11% of the population reporting suffering from two or more chronic illnesses. Differences between the urban and rural populations are small.

Figure 2.1 Chronic illnesses



QC1: "Does (name) suffer from any chronic disease – that is one that has lasted or will last more than a year?"; QC2 "What is it?"
Base: N=11.848 household members, weighted to reflect population size

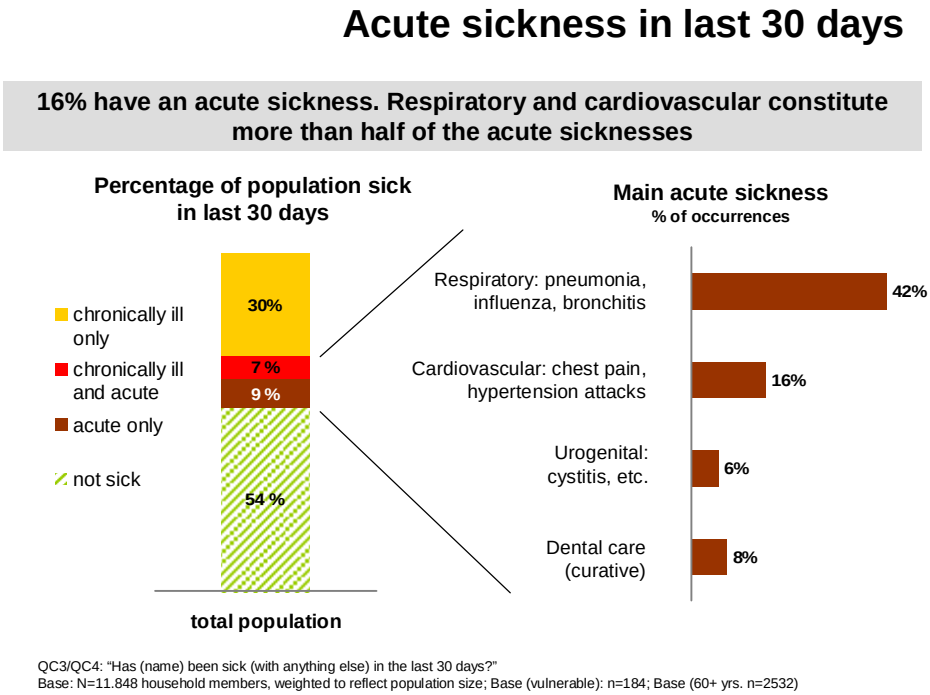
There is a wide range of chronic conditions reported. The most common chronic diseases are hypertension and other heart or circulatory diseases, which account for about a third of occurrences. It should be noted that these conditions and complaints are self-reported and while they may sometimes be based on diagnoses given by doctors to the respondents, in other cases they may not be. They also depended, sometimes, on interviewers interpreting and classifying what the respondent reported. They cannot be considered to be of equivalent quality to statistics on medical conditions reported through the health system. They are nevertheless informative, particularly since they include conditions where the individual may not have had any contact with the health services. With this proviso, the distribution of complaints recorded in the survey and through routine medical statistics are broadly similar (see Annex D).

Table 2.1 Chronic sickness rates and conditions

	Total	Urban	Rural
People with any chronic disease (%)	37.1	37.5	36.7
People with more than one chronic disease (%)	11.0	12.3	9.9
% of occurrences			
Diabetes	3.5	4.0	3.1
Hypertension	19.1	18.3	19.9
Other heart of circulatory system	12.6	13.4	11.8
Rheumatism, arthritis	8.9	6.9	10.8
Goitre	3.4	3.4	3.4
Neurological disorder	5.1	4.9	5.2
Psycho-emotional disorders	1.1	0.9	1.4
Tuberculosis	0.4	0.2	0.7
Cancer	1.2	1.2	1.1
Asthma	2.1	1.9	2.3
Gallstones	1.7	1.7	1.7
Allergy	1.9	2.0	1.7
Ulcers	1.8	1.8	1.8
Other gastrointestinal	5.6	5.8	5.5
Other hepatic, biliary	4.9	5.8	4.0
Other respiratory	2.2	2.4	2.1
Other musculo-skeletal	6.9	6.7	7.1
Gynaecological	2.7	2.7	2.6
Eye chronic diseases	4.5	3.9	5.1
Other chronic diseases	10.5	12.1	8.8
Total	**100.0**	**100.0**	**100.0**

Some 16% of the respondents report having had an acute sickness during the last thirty days and 9% had both an acute sickness and a chronic illness. Most of the acute sicknesses were respiratory diseases (42% of all occurrences) and cardiovascular diseases.

Figure 2.2 Acute sickness during last 30 days



QC3/QC4: "Has (name) been sick (with anything else) in the last 30 days?"
Base: N=11.848 household members, weighted to reflect population size; Base (vulnerable): n=184; Base (60+ yrs. n=2532)

Table 2.2 Acute sickness during last 30 days

	Total	Urban	Rural
People with one acute sickness last 30 days (%)	15.6	18.9	12.6
People with more than one acute sickness during the last 30 days (%)	1.0	1.4	0.7
% occurrence of sickness			
Respiratory: pneumonia, influenza, bronchitis, pharyngities	42.0	42.6	41.2
Cardiovascular: chest pain, cardialgia, hypertension attacks	16.1	15.6	17.0
Abdominal: cramps, abdominal pain. nausea,	5.3	4.6	6.3
Neurological: attack of migraine, stroke, myositis, neuralgi	5.0	4.5	5.9
Road traffic accidents	0.3	0.3	0.2
Harm purposely inflicted by others	0.0	0.1	0.0
Other trauma/injury	3.7	3.0	4.8
Poisoning/intoxication	1.0	0.9	1.1
Skin problems: rash, other skin diseases (dermatitis)	1.6	1.9	1.1
Urogenital: cystitis, pyelonephritis, endometritis, prostate	5.8	4.0	8.5
Other infectious diseases: diphtheria, tetanus, hepatitis	0.9	1.5	0.0
Pregnancy related problems: abortion, delivery complications	0.5	0.2	1.0
Psychological/mental problems: acute neurosis, depression	1.5	2.2	0.5

	Total	Urban	Rural
Dental care (curative)	7.6	9.3	5.1
Other acute illness	8.5	9.4	7.2
Total	**100.0**	**100.0**	**100.0**

Overall, around half (51%) of the population rated their health as good, or better than good, over the last four weeks. The rural population was slightly less likely to say this, but differences were small (see Annex A).

Looking at reported illness by age and sex, chronic illness is particularly high among older people: 76% of 60+ year old people report a chronic illness, and 31% report having a second chronic illness. Adult women are also more likely to report illnesses, both chronic and acute, than are men. As a result of this and their share of the population, females report some 62% of all occurrences of chronic illness; and women over age 60 account for 30%. Differences between male and female in the type of illness reported are not generally large, however (see Annex C).

Table 2.3 Age and sex differences in reported illness

Indicator		0-14 yrs	15-60 yrs	60+ yrs	Total
Percentage of population with chronic disease	Male	9.6	26.7	70.2	31.4
	Female	8.3	35.9	80.5	42.2
Percentage of population with acute sickness during last 30 days	Male	16.2	11.2	19.4	13.7
	Female	14.3	16.8	21.1	17.4

2.2 Service utilisation and place of consultation

About three fifths (59%) of those sick during the last 6 months consulted a health care provider the last time they were ill, with proportions very similar in urban and rural areas. While chronically ill people might be expected to have a better understanding of their illness and what is needed to treat it, this does not translate into a less frequent use of the health system. If the analysis is limited only to individuals who are chronically ill, some 57% have consulted a health care provider in the last six months. Despite the differences in proportions reporting illness by sex outlined above, the proportion of those who seek care when sick is similar for men and women (see Annex C).

Based on multiplying up consultations reported in the 30 days preceding the survey, the average number of consultations per person per annum with any healthcare provider is estimated to be around 2.0. While this and other survey estimates are often broadly in line with information from routine statistical sources, a detailed comparison raises some concerns, particularly over the level of use of village ambulatory facilities (see Annex D). These differences need further investigation.

Figure 2.3 Utilisation of services

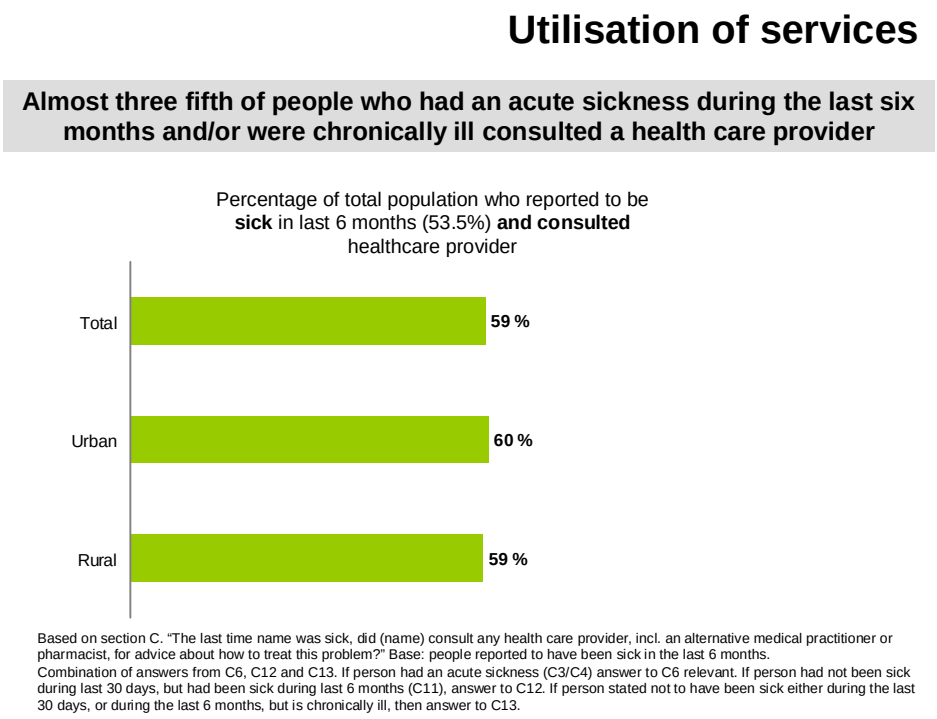


Table 2.4 Utilisation of services when sick

Indicator	Total	Urban	Rural
Percentage of total population who reported to be sick in last 6 months and consulted healthcare provider [2]	59.1	59.6	58.6

While the proportion of sick individuals who have a consultation is similar in urban and rural areas, there are significant differences in the where these consultations are undertaken. The urban population makes much greater use of polyclinics, while village ambulatories are a significant source of care in rural areas.

[2] Based on section C. "The last time name was sick, did (name) consult any health care provider, incl. an alternative medical practitioner or pharmacist, for advice about how to treat this problem?" Base: people reported to have been sick in the last 6 months.

Table 2.5 Place of consultation (first place of treatment only)

Place of consultation (last 6 months, based on E2)	Total	Urban	Rural
Home visit	8.5	10.2	6.8
Village Ambulatory Centre	9.7	0.3	19.7
Polyclinic	24.2	28.7	19.3
Dispensary	0.4	0.5	0.4
Women's consultation clinic	1.4	1.6	1.2
Hospital (as an outpatient)	28.8	27.3	30.3
Hospital (as an inpatient)	4.4	3.6	5.1
Dental clinic	5.2	7.0	3.2
Diagnostic centre	1.9	2.7	0.9
Private office/professional's home	5.3	6.9	3.5
Pharmacy	4.8	4.8	4.9
Abroad	0.2	0.2	0.3
Ambulance - treated only there	3.6	4.4	2.9
Other	1.6	1.6	1.6
Don't know/Refuses to answer	0.1	0.1	0.0
Total	**100.0**	**100.0**	**100.0**
Percentage of all first consultations that are at PHC level	52.7	52.4	53.1

A key objective of health sector reforms has been to strengthen primary health care (PHC) and increase utilisation at this level, reducing self-referral to hospitals. In this analysis, a number of places of treatment are considered to be primary level care, namely home visits, village ambulatory centres, polyclinics, women's consultation clinic, dental clinic, ambulance (if treated there) and maternity hospitals (if used for preventive care). Only slightly more than half (53%) of first consultations take place at primary care level.

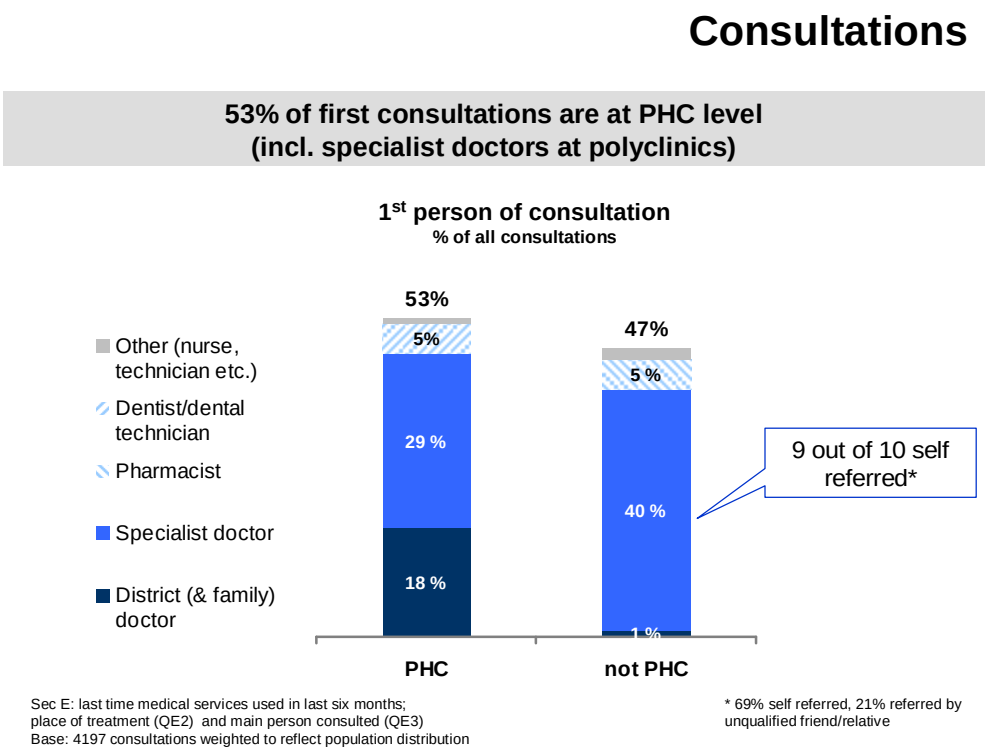
Village ambulatory centres still play quite a limited role, with around 20% of consultations by rural households being undertaken there, a similar proportion to polyclinics and less than in hospitals. This translates to around 175 consultations per 1,000 persons per year at ambulatories, across the whole (national) population. Consultations with specialist and hospital doctors still account for two thirds or more of first consultations, even in rural areas.[3]

[3] This is consistent with the statement that around half of consultations take place at primary care level because consultations at polyclinics, including those with specialist doctors at polyclinics, were treated as primary care level for this analysis.

Table 2.6 Person consulted (first place of treatment only)

Main person consulted for a sickness during the last 6 month	Total	Urban	Rural
	Col %	Col %	Col %
District (and family) doctor	18.4	15.3	21.8
Specialist (incl. hospital) doctor	68.5	69.8	67.0
Nurse	0.9	0.1	1.8
Pharmacist	4.7	4.7	4.8
Dentist/dental technician	5.5	7.7	3.2
Lab/diagnostic technician	0.3	0.4	0.1
Alternative provider	0.6	0.9	0.2
Other	1.0	0.9	1.0
Don't know/Refuses to answer	0.1	0.1	0.1
Total	**100.0**	**100.0**	**100.0**

Figure 2.4 Person consulted

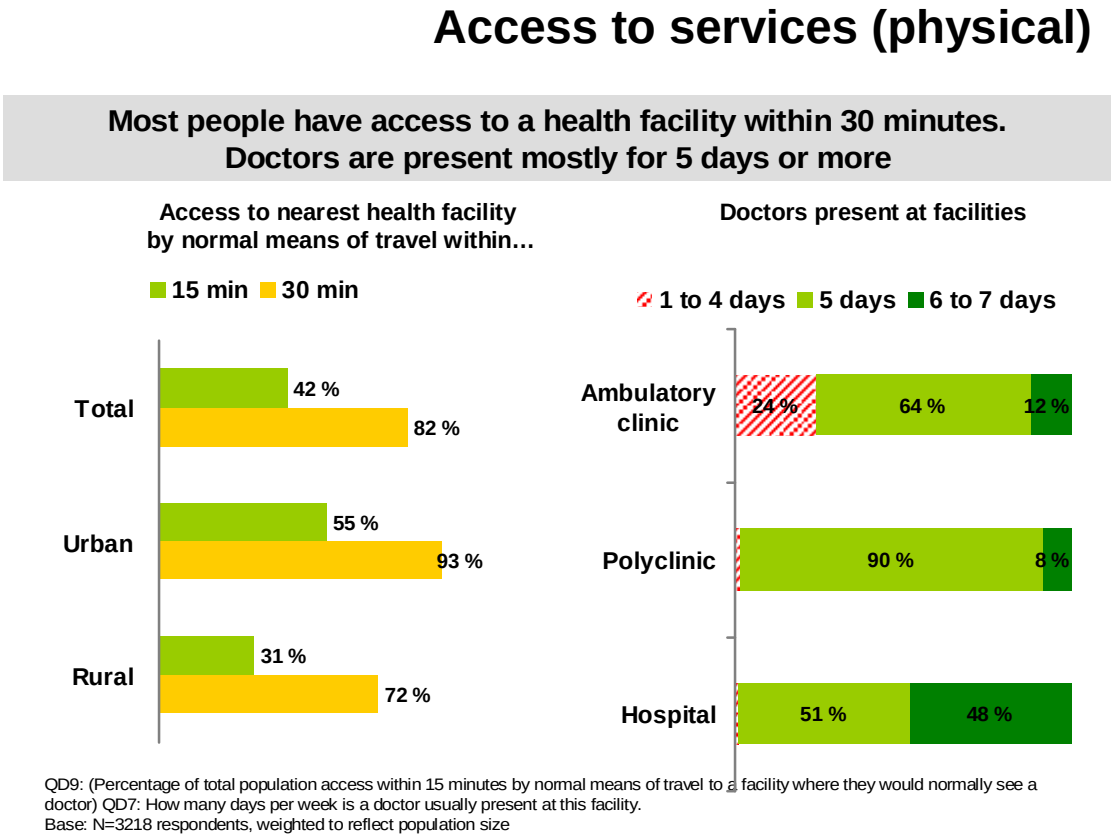


Of those who use secondary health facilities, most decide to go there without being referred - 9 out of 10 first consultations with a specialist doctor at non-PHC facilities are either self referred (69%) or "referred" by a relative or unqualified friend (21%). Overall, referrals were reported relatively rarely: of all consultations reported, the vast majority are first consultations (94%).This finding reinforces the need for strengthening primary health care uptake and referral processes.

2.3 Physical and financial access to services

It is useful to distinguish physical access - distance, availability of services - from financial access - the ability to pay for medication, consultations etc. In terms of physical access, most people have access to a health facility within 30 minutes by their usual means of transport. In most cases this refers to taking the bus or walking. Even in rural areas, 72% of the population live within 30 minutes of the health facility that is the nearest and/or normally visited, although for a small fraction of the population travel times are much longer.

Figure 2.5 Physical access to health services



QD9: (Percentage of total population access within 15 minutes by normal means of travel to a facility where they would normally see a doctor) QD7: How many days per week is a doctor usually present at this facility.
Base: N=3218 respondents, weighted to reflect population size

Doctors are reported to be present for at least 5 days a week at most health facilities. This is true of most village ambulatory clinics, although one quarter of respondents report that doctors are present for fewer than five days per week at their local ambulatory. There are therefore a significant number of facilities where doctors' consultations are not as readily available as they should be.

Table 2.7 Indicators of physical and financial access

Indicator	Total	Urban	Rural
Percentage of total population with access within 15 minutes by normal means of travel to a facility where they would normally see a doctor	42.0	55.0	31.3
Percentage of total population with access within 30 minutes by normal means of travel to a facility where they would normally see a doctor	81.5	92.8	72.2
Median travel time to place of consultation for last consultation (minutes)	30	25	40
Mean number of days per week a doctor is reported to be present at polyclinics.	5.23	5.30	4.95
Mean number of days per week a doctor is reported to be present at ambulatory facilities.	4.56	--	4.55
Percentage of patients who were able to obtain medications prescribed by doctor during last consultation	84.3	83.7	84.9
Percentage of patients who were able to get needed lab tests at the same place they went for last consultation.	84.4	84.1	84.7
Percentage of occurrences of sickness in last 30 days, where no medical care outside the house was taken up	40.7[4]	40.5	40.9
Percentage of occurrences of sickness in last 30 days, where no medical care outside the house was taken up, because it was too expensive/not enough money available[5]	18.8	16.5	21.6
Percentage of consultations where medicine was prescribed	82.1	77.8	86.6
Percentage of consultations where medicine was prescribed but not purchased because it was too expensive (base: all consultations)	11.8	11.8	11.9
Percentage of consultations where a lab test was prescribed	43.5	42.5	44.5
Percentage of consultations where a lab test was prescribed but not done because it was too expensive (base: all consultations)	4.2	3.2	5.3
Percentage of population who were reported to need hospitalisation in the last year but were not hospitalised	15.9	12.3	19.3
Percentage of population who reported needing hospitalisation in the last year but were not hospitalised because it was too expensive/they did not have enough money (base: total)	13.7	11.1	16.2
Percentage of patients who got a receipt for all payments made	35.4	41.1	28.0
Percentage of respondents who expect to pay for a consultation with a doctor at the nearest facility	64.6	72.1	58.0
Percentage of population reporting being covered by health insurance (government, private or employer)	14.1	9.5	18.5

Most users reported that tests and medicines prescribed could be obtained at (or near) the place they were prescribed – around 85% in each case. An appreciable proportion of the population, however, reported that some services were unaffordable. Some 18% of people who reported that they were sick in the last 30 days said that they did not have a consultation because they couldn't

[4] Base: 37.1% cases who answered F22. This is every occurrence of an acute sickness and those occurrences of chronic illnesses where the person has, in the last 30 days, had an additional treatment or an additional consultation because of exacerbation of this illness (F11=1)

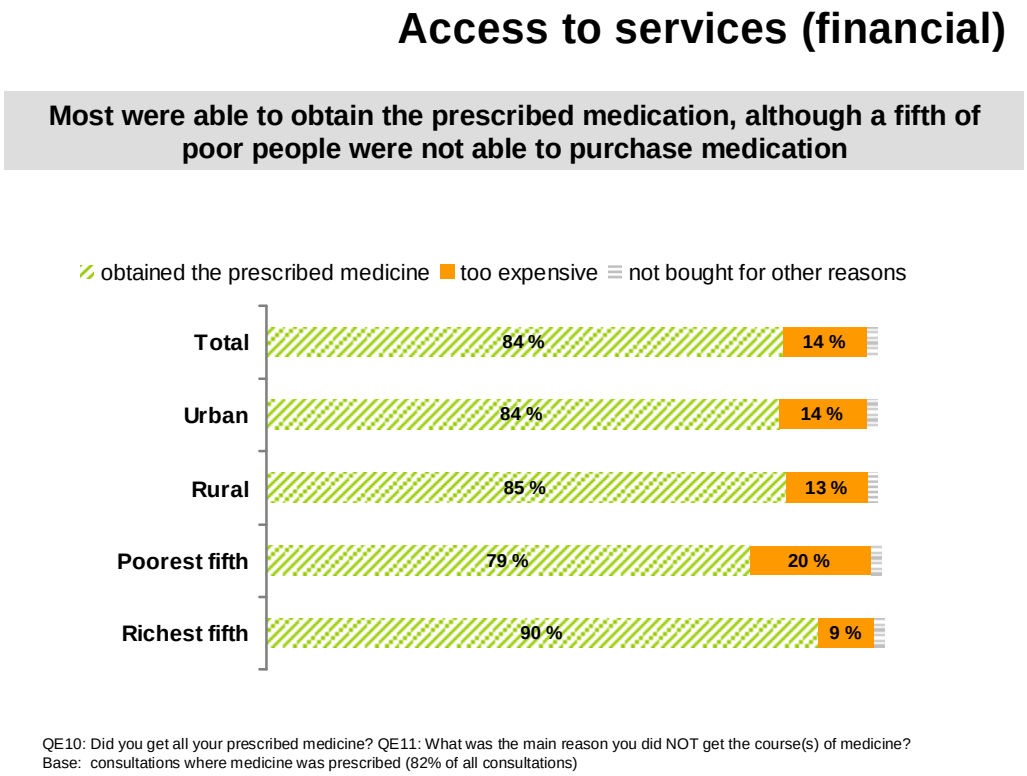
[5] Reasons for not taking any care outside the household; combination of primary and secondary reasons given. Denominator is total number of reasons.

afford it, and for around 12% of all consultations it was reported that prescribed medicines could not be afforded (this constitutes 14% of consultations where medicines were prescribed, as shown in Figure 2.6). The proportion reporting that services were unaffordable varies with the type of service, but it is generally higher in rural areas, with the exception of medicines where differences are small.

The proportion reporting that they could not afford medicines was highest amongst the poor. However, even among the richest fifth, 9% felt that the medication was too expensive, suggesting some medicines may be difficult to afford, or judged not worth purchasing, even for the wealthiest part of the population.

Most users expected to pay for their consultation and only slightly over one third reported receiving a receipt that covered all the payments made.

Figure 2.6 Ability to obtain prescribed medication



QE10: Did you get all your prescribed medicine? QE11: What was the main reason you did NOT get the course(s) of medicine?
Base: consultations where medicine was prescribed (82% of all consultations)

Table 2.8 shows a range of key indicators by household income (consumption quintile). Richer households are slightly more likely to report illness than poor households, although this probably reflects different perceptions of illness. Richer households are also more likely to consult a health care provider when they are sick. The differentials in utilisation between income groups are not large and depend somewhat on which measure is used – there are no appreciable differences in the proportion consulting a healthcare provider when individuals with an acute illness are analysed alone (see Annex D). A comparison between the HUES results and previous analyses of

differentials in utilisation by income status (also outlined in Annex D) is not conclusive as to whether differentials have declined. An analysis of the 2006 HIS data might throw further light on this issue. However, the poorest individuals are substantially more likely to report not using services because they were unable to afford them: for example, of individuals who needed hospitalisation but did not go to hospital, a fifth report that this was due to lack of money.[6] Financial barriers to accessing care remain important, particularly for the poorest.

Table 2.8 Key indicators by consumption quintile

Indicator	poorest fifth	2	3	4	richest fifth
Percentage of total population with chronic disease	34.1	37.0	37.3	38.0	38.6
Percentage of total population with acute sickness during last 30 days	14.3	14.9	16.7	15.0	17.5
Percentage of total population who reported to be sick in last 6 months and consulted healthcare provider	55.2	57.2	60.0	61.5	63.5
Percentage of patients who were able to obtain medications prescribed by doctor during last consultation	79.1	83.8	85.2	83.0	90.1
Percentage of occurrences of sickness in last 30 days, where no medical care outside the house was taken up[7]	41.6	39.7	42.7	38.7	36.3
Percentage of occurrences of sickness in last 30 days, where no medical care outside the house was taken up, because it was too expensive/not enough money available[8]	21.5	18.7	24.2	15.2	11.3
Percentage of consultations where medicine was prescribed but not purchased because it was too expensive (base: all consultations)	16.4	11.6	11.6	12.2	7.3
Percentage of consultations where a lab test was prescribed but not done because it was too expensive (base: all consultations)	6.0	4.6	3.8	4.0	3.6
Percentage of population who were reported to need hospitalisation in the last year but were not hospitalised	21.2	16.7	13.1	18.5	11.3
Percentage of population who were reported to need hospitalisation in the last year but were not hospitalised because it was too expensive/they did not have enough money (base: total)	18.8	15.1	11.4	16.1	9.1
Percentage of population reporting being covered by health insurance (government, private or employer)	18.5	14.8	12.5	14.4	16.9
Percentage reported to be beneficiaries of State Program for Population below the Poverty Line (score up to 70000)	20.3	17.1	12.1	12.7	6.5

Recent government reforms have created a poverty-targeted benefits programme which uses proxy means testing to identify beneficiaries (called the State Program for Population below the

[6] Note that this was the self-reported need for hospital care and was not necessarily based on referral by a doctor.

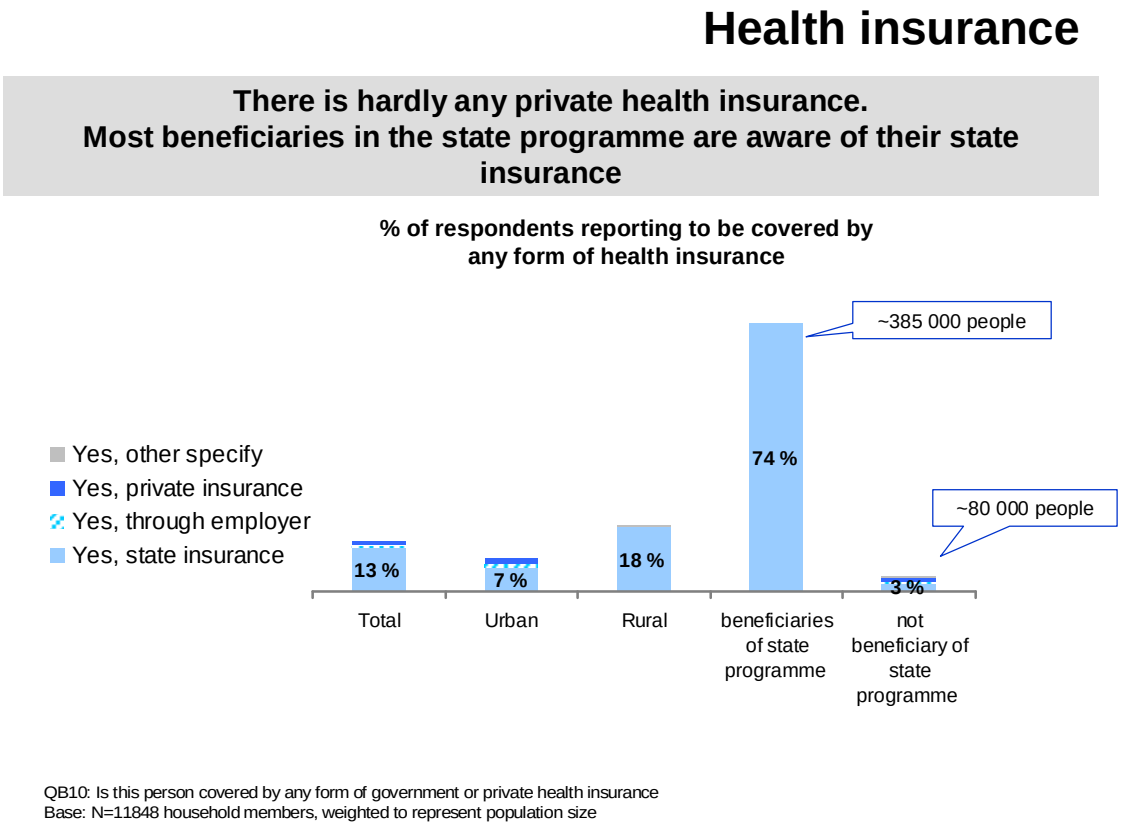
[7] Base: 37.1% cases who answered F22. This is every occurrence of an acute sickness and those occurrences of chronic illnesses where the person has, in the last 30 days, had an additional treatment or an additional consultation because of exacerbation of this illness (F11=1)

[8] Reasons for not taking any care outside the household; combination of primary and secondary reasons given. Denominator is total number of occurrences

Poverty Line). Those that are accepted into the programme receive a number of health care services for free, and the very poorest also receive cash benefits. The survey collected information on households' participation in this programme, including the score that they were assigned (which determines eligibility).[9] It found that some 14% of the population reported being beneficiaries of the programme, with this figure reaching almost 20% in rural areas.

Most health insurance is provided through the exemptions given by this programme; less than 1.5% of the population is covered by private or employment-based health insurance. Around three quarters of households that reported being beneficiaries of the programme (through having an appropriate score) also reported that they were covered by state health insurance. The remainder may not have been aware of it, since the programme is currently in a state of change and development.

Figure 2.7 Health insurance coverage



QB10: Is this person covered by any form of government or private health insurance
Base: N=11848 household members, weighted to represent population size

The government is therefore extending this form of health insurance on a significant scale and is to some extent reaching the poorest quintile. However, the data raises concerns about the effectiveness of the targeting of the programme. Table 2.8 suggests that coverage of the poorest quintile remains low. Since it targets the poorest 17% of the population, almost universal coverage

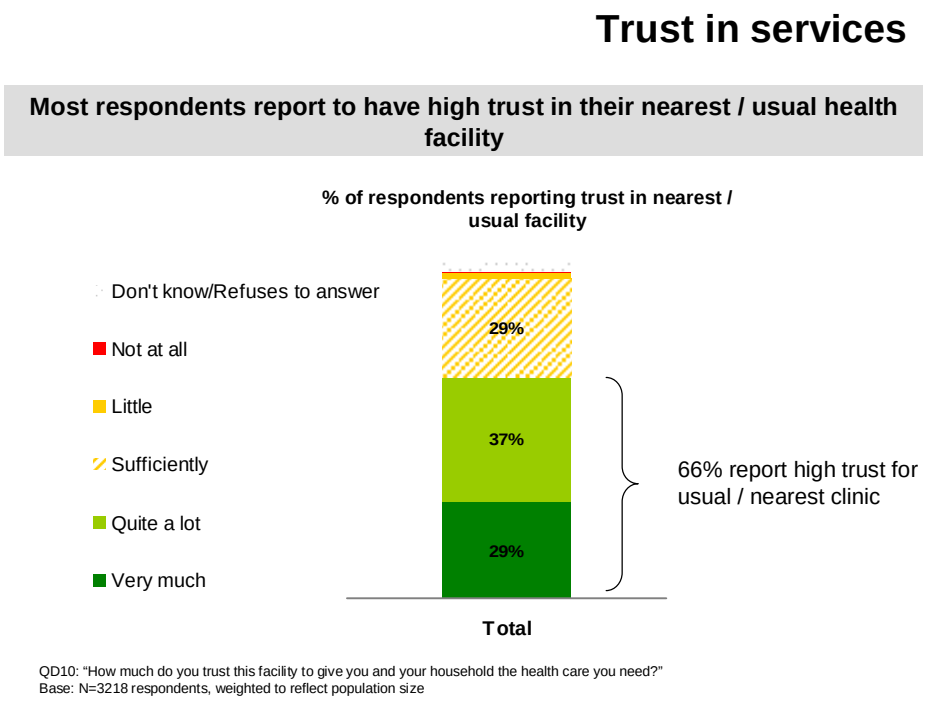
[9] Households with a score of up to 70,000 are admitted as beneficiaries to the programme as a whole, though only a lower score gives entitlement to cash benefits. The survey also collected information, separately, on whether individuals were covered by any health insurance, including state health insurance.

of the lowest quintile might be expected. However, only 20% are covered, meaning that 80% of the group are excluded. The data also show that around 70% of Programme beneficiaries are not in the poorest quintile. The survey was not designed specifically to assess the targeting of this programme and there are a number of caveats to this finding.[10] Nevertheless, it does raise concerns about how effectively the benefits of this important programme are being targeted.

2.4 Satisfaction with health services

Most respondents report being broadly happy with the health services. Two thirds state that they have high trust in the nearest health facility. This may be partly explained by an average reported consultation time of about half an hour, which stands in sharp contrast to average consultation times in some Western European countries of less than 10 minutes. The relatively long consultation time may have to do with an oversupply of doctors, raising concerns about efficiency. These long consultation times may also be behind the fact that more than 80% of patients report that they were involved as much as they wanted to be in decisions about their care and treatment.

Figure 2.8 Trust in services



QD10: "How much do you trust this facility to give you and your household the health care you need?"
Base: N=3218 respondents, weighted to reflect population size

[10] Amongst others, the consumption measure may be somewhat outdated for each household and is not adjusted for the effect of any cash benefits paid under the programme on the beneficiaries, since the benefits will themselves help raise the consumption level of the household.

Table 2.9 User satisfaction with services

Indicator	Total	Urban	Rural
Percentage of consultations where patients report that doctor/nurse completely explained reasons of treatment (as opposed to some or no explanation)	81.0	81.4	80.5
Percentage of patients reporting that they spent more than 12 minutes with the main medical professional they saw	91.2	91.1	91.3
Percentage of population reporting that the health care facility they last visited was clean or very clean.	93.3	92.5	94.1
Percentage of patients reporting that they were involved as much as they wanted to be in decisions about their care and treatment	83.1	85.3	81.0
Percentage of respondents reporting trust in services for nearest / usual clinic	65.2	63.4	66.9

2.5 Pilot region baseline estimates

In addition to providing national estimates, the survey provides baseline estimates for the pilot regions where additional support to reform is being provided through the Georgia Health and Social Projects Implementation Centre (GHSPIC) with financing from the World Bank. These de facto 'pilot' regions are: Imereti, Adjara, Shida Kartli and Kakheti. Kvemo Kartli was also added to this group after discussions during the analysis stage of the work, since it is also being supported through GHSPIC and will undertake similar activities, although it has EU financing.[11] It was agreed that the entire rural population of these regions would be treated as the pilot population since this is the focus of the support, although in practice there is some variation in the extent of coverage of the rural population and there are some activities in urban areas. Nevertheless, assessing trends in the rural population is considered to be the best overall measure of progress in the pilot regions.

An additional complication is that the project had already been running for some time before the baseline survey, although practical changes on the ground that were likely to affect service delivery had only really begun to take effect in 2007. GHSPIC reports that analysis of routine data collected from records during a small survey of facilities in the pilot regions suggested that there had been some increase in utilisation by 2007. The HUES baseline and follow-up will therefore estimate any additional improvements after the time of the first HUES.

A comparison of selected indicators for the pilot and other rural populations is presented in Table 2.10. The comparison shows that similar levels of sickness are reported, though with non-pilot areas reporting a little more chronic illness. Physical access to services appears to be better in the pilot regions, although utilisation when sick is slightly lower. The reported presence of doctors at facilities is slightly higher in the pilot region, though differences are small. The availability of medicines and tests seems to be similar. A substantially higher proportion of individuals expect to pay for a consultation in the pilot regions, and a slightly smaller proportion of users got a receipt for

[11] One disadvantage of this reclassification is that it makes the sample size in non-pilot rural regions somewhat smaller than intended.

all payments. Measures of financial access (shown in the annex) appear similar across the two populations. Information on additional indicators is shown in the annex tables.

The pilot programme also promotes village meetings to discuss the services at local rural ambulatory facilities. The survey found that very few rural households reported such meetings taking place – only 2% overall, and only 1% in the pilot regions.

Table 2.10 Selected indicators for pilot and other rural populations

Indicator	All rural	Pilot regions, rural	Other rural
Number of cases (unweighted)	7,415	5,710	1,705
Percentage of total population with chronic disease	36.7	35.5	39.5
Percentage of total population with acute sickness in the last 30 days	12.6	13.1	11.3
Percentage of total population who reported to be sick in last 6 months and consulted healthcare provider	58.6	57.1	61.7
Percentage of total population access within 15 minutes by normal means of travel to a facility where they would normally see a doctor	31.3	33.7	25.8
Percentage of total population access within 30 minutes by normal means of travel to a facility where they would normally see a doctor	72.2	74.5	67.0
Mean number of days per week a doctor is reported to be present at polyclinics.	4.95	4.98	4.88
Mean number of days per week a doctor is reported to be present at ambulatory facilities.	4.55	4.62	4.40
Percentage of patients who were able to obtain medications prescribed by doctor during last consultation	84.9	83.8	87.0
Percentage of patients who were able to get needed lab tests at the same place they went for last consultation.	84.7	85.3	83.6
Percentage of respondents who expect to pay for a consultation with a doctor at the nearest facility	58.0	64.0	45.6
Percentage of patients who got a receipt for all payments made	28.0	26.6	31.7
Percentage of the rural population that reported that a village meeting about their local ambulatory had taken place	2.1	1.2	4.0
Percentage of the rural population that has been to a local meeting that gave information about their local ambulatory facility.	1.2	0.9	1.8

Note: these estimates are across users of all types of facilities and are not limited only to users of ambulatories.

3 Health expenditure and finances

3.1 Introduction

Health care expenditure estimates presented in this section describe household health spending in Georgia covering the period of June 2006 – July 2007. These estimates were necessary to:

- Correct private expenditure estimates for the National Health Accounts (NHA) and
- Derive correcting factors that can be used when adjusting quarterly *Integrated Household Survey* (IHS) findings for health care spending. These adjustments are also expected to improve final estimates for health care consumption for National Accounts.

The following sections of the report describe household expenditure in detail by type of service and by type of provider. Sometimes expenditures are linked with the health care conditions/problems, however it is not the purpose of this document to derive estimates of expenditure on service provision for specific health care problems, but to help provide overall estimates of household expenditure by functions of care and type of service provider. Therefore, the document presents the same estimates in two different dimensions and, not to confuse the reader, always highlights if the estimates are broken down by functions of care (e.g. inpatient services or outpatient services, which are provided by outpatient facilities as well as hospital outpatient departments), or by providers of care (e.g. hospital level spending, which includes spending for both inpatient as well as outpatient care, or spending levels on stand-alone outpatient facilities).

Where appropriate, mean and total estimates of expenditure for various services are compared among different population groups. When presenting findings we follow the structure of the survey tool. First we present information about inpatient spending that occurred during last year. For NHA purposes we try to estimate various costs related to inpatient care (e.g. cost for diagnostics, for drugs purchased outside of the facility, etc.). These various components of inpatient care costs inform NHA estimates. After inpatient expenditure estimates, we move onto expenditure estimation for those cases that received outpatient care during the 30 days prior to the survey. When estimating expenditures for outpatient care, we look at different components of spending (e.g. payment to service providers, payment for drugs purchased in the pharmacy, and diagnostic costs). Estimates for outpatient care expenditure include services provided by outpatient departments of hospitals and stand-alone outpatient facilities. Then we move onto looking at household expenditure due to chronic conditions. These expenditures are also partitioned by elements of care to inform NHA estimates. Finally, we present estimates for expenditure resulting from self-treatment (when no health care provider was consulted).

Beyond overall expenditure estimates for each type of service/facility, we further partition them by sub-type of service and sub-type of service provider. The survey tool was based on classification of individual consumption by purpose adapted to the needs of household budget surveys (COICOP/IHS). It allows linking household expenditure with the International Classification for Health Accounts scheme for *Health Care Functions* (ICHA-HC) and *Health Care Providers* (ICHA-HP) in order to partition spending and inform NHA tables for Georgia.

Total and per capita estimates are based on the IHS sampling and analogous weights, which gross-up the surveyed population to give a total of 3,805,736 individuals (see Annex E). Estimates of total expenditure were also produced using alternative weights, which grossed up the population to the levels reported by the Census (4.3 million). However these weights increased estimated total health care expenditure by 18% (967 million Gel instead of 823 million Gel presented in this

report). In order to maintain comparability between the findings of HUES and the IHS, it was agreed to present the estimates based on SDS/IHS sampling and analogous weights, although users may choose to use adjusted figures. It is hoped that the next round of the survey will use weights derived from a revised HIS sampling process and discrepancies with the Census will not be so marked.

3.1.1 Morbidity captured by the survey

The survey instrument looked at expenditures related to hospitalizations during the previous year and during the last 30 days, expenditures related to chronic diseases (monthly and annual recurrent costs), to self-treatment, to acute illnesses and dental care and ambulance service utilization.

Table 3.1 Total number of cases captured by the survey

Type of care received	N	Weighted N	Utilization per 1,000 population
All hospitalizations (during past 12 month)	486	164,021	43.1
Utilization of outpatient services during last 30 days	1,594	521,855	137.1
Dental care during last 30 days	139	52,359	13.8
Ambulance	210	68,981	18.3
Prevalence of chronic conditions among population	5,761	1,797,682	472.4
Self-treatment episodes during last 30 days	956	305,723	80.3

The findings were broadly comparable with government statistics reported for 2006 by the National Center for Disease Control (NCDC) (see Annex D). However, there are some differences. For example, not all dental facilities, which are mainly under private ownership, submit annual statistical reports to NCDC. Consequently, HUES findings present more reliable estimate for dental service utilization and are used directly for household expenditure estimates. As for hospital utilization, government reported discharge rates are higher than the estimates given in the 12 month recall by the HUES. Household surveys may not capture all cases of hospitalizations, although the 30 day recall of hospitalization gives a higher figure. NCDC reports for the total number of hospital admissions are likely to be the most reliable. Consequently, the hospital expenditure estimates presented in Table 3.15 and Table 3.16 are adjusted upwards using NCDC hospitalization data for 2006[12].

3.2 Household expenditure by functions

3.2.1 Expenditure for inpatient services

In Georgia, inpatient care is rendered by hospital facilities only. Therefore all cases of hospitalizations, where duration of hospital stay was longer than 24 hours, and if hospitalization occurred during 12-month period prior to interview, were treated as inpatient care expenditure. The mean amounts by type of hospital are shown in Table 3.2.

[12] Average cost per hospitalization by type of hospital was multiplied by total number of hospitalizations reported for this type of facility in the 2006 statistical yearbook.

Table 3.2 Cost of inpatient services and per-capita expenditure by type of hospital facility.

Type of Hospital Facility	Weighted Count of Cases of Hospitalization	Cases of Hospitalization captured by survey	Mean Amount Per Hospitalization (Gel)	Per Capita Annualized Expenditure (Gel)[13]
General hospital	82,845	260	562	19.9
Maternity hospital	27,760	80	408	4.8
Children's hospital	14,537	41	281	1.7
TB infectious dis. Hospital	1,398	5	150	0.1
Other specialist hospital	37,482	100	964	15.4
Total	**164,021**	**486**	**599**	**39.3**

Out of the amount spent for inpatient care, about 6.3% is paid to cover the cost of diagnostic and laboratory services. Out of the amount devoted to diagnostics and laboratory, 23% is used to cover cost of laboratory services, 7% pays for diagnostic imaging and 70% for all other ancillary services.

In addition to payments for inpatient care, patients bear costs of drugs and supplies purchased in the pharmacy (outside of the hospital). These costs were borne by only small number of patients but in annualized per capita terms they are significant and amounted to an additional 3.1 Gel per capita for drugs and 1.82 Gel per capita for supplies, on top of 39.3 Gel per capita spent for inpatient care.

Table 3.3 Comparison of hospital expenditure by various population groups.

Population Group	Share of Population Hospitalized from this group during year prior to survey	Mean Amount per Case of Hospitalization (Gel)	Share in Total Expenditure on inpatient services
By Type of Residence*			
Urban	5.0%	681	65%
Rural	3.6%	491	35%
By Location of Residence*			
Tbilisi	6.5%	686	41%
East Georgia[14]	3.9%	530	26%
West Georgia[15]	3.6%	602	33%
HH Consumption Quintile Groups*			
Poorest 20%	3.1%	509	12%
2nd	4.6%	546	18%
3rd	4.4%	481	16%
4th	4.9%	581	21%
Richest 20%	5.4%	829	33%
Total	4.5%	604	100%

[13] Per capita expenditures are derived from NHA estimates.

[14] East Georgia includes Kakheti, Shida Kartli, Kvemo Kartli, Samtskhe-Javakheti and Mtskheta-Mtianeti.

[15] West Georgia includes Adjara, Guria, Samegrelo, Imereti and Racha-Lechkhumi and Zemo Svaneti.

By beneficiaries of State Program for Population below poverty line *			
Beneficiaries (score up to 70000)	5.3%	414	12%
Non beneficiaries (score above 70000 or no score)	4.2%	637	88%

* Statistically significant difference P<0.01

The level of spending on inpatient services varied with the geographical location and economic status of household. Table 3.3 provides mean expenditure per case of hospitalization as well as the share of contribution of this group to the total annual spending on hospitals. These findings indicate that urban, richer and non-beneficiary households spend higher amounts per case of hospitalization. In addition, mean cost per case of hospitalization was higher in Tbilisi then elsewhere in Georgia.

3.2.2 Expenditure for outpatient curative care

Outpatient services are offered by hospitals from their outpatient departments as well as by stand-alone outpatient facilities (polyclinics, village ambulatories, women consultations etc.). Moreover, outpatient curative services are offered in conjunction with diagnostic and lab services. Therefore, expenditure for outpatient curative care was estimated by type of facility as well as by type of service (all outpatient services provided by hospital outpatient departments, stand-alone outpatient facilities or individual/private doctors were included). Table 3.4 provides estimates per episode of care and includes all fees paid to the providers, including for diagnostics and cost of drugs purchased at the facility and elsewhere.

Table 3.4 Total cost per episode of outpatient curative care by place of service provision*

Place of Service Provision	Weighted Count of individuals who paid for care	Count of individuals who paid for care	Mean Cost of Episode of Care by place of service provision (Gel)	Per Capita Annualized Expenditure (Gel)
Home visit	55,528	164	40.1	7.0
Village Ambulatory Centre	52,015	180	30.0	4.9
Polyclinic	148,622	449	46.3	21.7
Women's consultation clinic	13,942	38	67.4	3.0
Hospital outpatient departments (all)	**150,310**	**463**	**94.9**	**45.0**
General hospital (as an outpatient)	100,724	312	81.8	26.0
Maternity hospital (as an outpatient)	5,063	19	81.3	1.3
Children's hospital (as an outpatient)	6,900	23	73.1	1.6
Other specialist hospital (outpatient)	37,622	109	135.9	16.1
Dental clinic	52,271	138	71.3	11.8
Diagnostic centre (only)	13,412	30	86.1	3.6
Private office/professional's home	34,377	96	39.6	4.3
Pharmacy (only)	30,105	104	10.9	1.0
Other	39,599	117	20.7	2.6
Total	**590,180**	**1,779**	**56.4**	**104.9**

* This table includes the amounts paid to the provider/facility and the cost of drugs (prescribed and/or recommended) purchased elsewhere.

Table 3.5 reflects only fees paid to providers for outpatient care provision, which includes the cost of diagnostic services and fees paid to providers (formal and informal) but excludes the cost of drugs purchased elsewhere. Besides described costs, population also purchased prescribed or recommended drugs from the drug stores and faced additional expenses. The total drug expenditure related to outpatient curative care and its breakdown by place of service provision is provided below in Table 3.6.

Table 3.5 Fees paid for outpatient curative care by place of service provision**

Place of Service Provision	Weighted Count of individuals who paid for care	Count of individuals who paid for care	Mean Fee Paid to Facility by place of service provision (Gel)	Per Capita Annualized Expenditure (Gel)
Home visit	24,605	72	22.9	1.8
Village Ambulatory Centre	19,213	70	12.5	0.8
Polyclinic	95,646	292	30.0	9.0
Women's consultation clinic	10,874	30	47.2	1.6
Hospital outpatient department	**121,631**	**381**	**68.0**	**26.1**
General hospital (as an outpatient)	80,205	259	52.8	13.4
Maternity hospital (as an outpatient)	4,703	17	59.6	0.9
Children's hospital (as an outpatient)	5,575	18	38.9	0.7
Other specialist hospital (outpatient)	31,148	87	113.6	11.2
Dental clinic	47,626	128	75.2	11.3
Diagnostic centre (only)	9,270	24	85.0	2.5
Private office/professional's home	17914	48	40.2	2.3
Pharmacy (only)	22951	74	11.6	0.8
Other	8420	24	40.1	1.1
Total	**499,781**	**1,143**	**48.0**	**83.3**

** These fees include fees to provider, for diagnostic services and for any medicine provided by the provider/facility, but exclude fees paid for medicines that were purchased elsewhere

Table 3.7 provides insight into drug expenditure for OP care by various population groups and regions. These figures help estimate the geographical distribution of the pharmaceutical market as well as inform the NHA tables required for sub-analysis of pharmaceutical spending. This table also shows that the share of those that pay for drugs is higher among urban and Tbilisi population, which may be the result of easy access to drug stores due to geographic proximity and better development of retail pharmacy network in these locations. It also shows that the share of those who purchased drugs is highest among the richest quintile and lowest among the poorest 20% of households, which probably points to affordability differences between these groups. However, without further analysis (when other factors that may differentiate these quintile groups are accounted for), the conclusions about affordability cannot be straightforward.

Table 3.6 Expenditure for drugs purchased elsewhere for outpatient curative care by place of prescription

Place of Service Provision	Weighted Count of individuals who paid for drugs	Count of individuals who paid for drugs	Mean by place of prescription (Gel)	Per Capita Annualized Expenditure (Gel)
Home visit	54,981	161	30.3	5.2
Village Ambulatory Centre	52,015	180	25.3	4.2
Polyclinic	147,181	446	27.2	12.6
Women's consultation clinic	13,835	37	30.9	1.3
Hospital outpatient department	**148,208**	**454**	**40.5**	**18.9**
General hospital (as an outpatient)	99,329	306	40.3	12.6
Maternity hospital (as an outpatient)	4,956	18	26.5	0.4
Children's hospital (as an outpatient)	6,900	23	41.7	0.9
Other specialist hospital (outpatient)	37,023	107	42.5	5.0
Dental clinic	50,983	134	2.8	0.5
Diagnostic centre (only)	13,412	30	27.4	1.2
Private office/professional's home	34,096	95	18.8	2.0
Pharmacy (only)	30,105	104	2.1	0.2
Other	39,114	116	12.3	1.5
Total	**583,932**	**1,757**	**25.9**	**47.7**

Table 3.7 Drug expenditure for outpatient curative care by population groups

Population Group	Share of Population from this group that paid for drugs	Mean Amount per Case of drug purchase (Gel)	Annualized Per Capita Expenditure for OP Drugs (Gel)
By Type of Residence*			
Urban	18.1%	24.0	52.2
Rural	12.7%	28.5	43.3
Total for Georgia	15.3%	25.9	47.7
By Location of Residence			
Tbilisi	20.0%	23.1	55.5
East Georgia	12.6%	24.9	37.5
West Georgia	14.8%	28.9	51.4
HH Consumption Quintile Groups*			
Poorest 20%	13.2%	23.3	36.9
2nd	14.3%	25.3	43.4
3rd	15.6%	25.2	47.1
4th	17.1%	26.4	54.0
Richest 20%	20.3%	28.9	70.3
By beneficiaries of State Program for Population below poverty line *			
Beneficiaries (score up to 70000)	18.7%	21.3	47.9
Non beneficiaries (score above 70000 or no score)	15.1%	26.8	48.6

The most interesting finding of this table is the higher share of population among beneficiaries of the *State Program for Population below Poverty Line:* 18.7% when compared to non-beneficiaries at 15.1%. This difference may be explained by several factors: e.g. better access of beneficiary population to care provider, which may result in higher prescription rate for this group. This assumption is further supported by the findings that the share of those individuals who did not pay anything to care providers was higher among the beneficiary population (47.3%) than among non-beneficiaries (33.8%).

3.2.3 Expenditure for outpatient curative care determined by chronic conditions and self-treatment

The survey tool captured patients with chronic conditions that face recurrent health care costs. Their expenditures on drugs, medical supplies, and medical consultation were estimated (see Table 3.8). These estimates include only those chronic conditions that did not suffer an exacerbation during 30-day period prior to survey, to avoid double counting, since the cases with exacerbation are included in the OP expenditure presented above.

The survey also identified that 31.9% of outpatient consultations for chronic and acute conditions take place in a hospital setting and 48% of total spending on outpatient care is expended in these facilities. Therefore, in NHA tables 48% of total expenditure on medical consultations and 56% of expenditures on diagnostics by chronic patients is attributed to hospital care providers and the remaining to *outpatient multi-specialty centers* (HP 3.4.5) and expenditure for drugs, medical supplies, and equipment to *retail sale and other providers of medical goods* (HP4).

Table 3.8 Monthly and annualized health care expenditure for chronic conditions

Type of Expenditure for Chronic Patient	Weighted Count of individuals who faced expenditure during last month	Count of individuals who faced expenditure during last month	Mean per chronic patient per month (Gel)***	Per Capita Annualized Expenditure (Gel)
Monthly spending for medications	738,162	2,358	18.5	43.11
Monthly spending for medical supplies	8,945	30	4.7	0.13
Monthly spending for herbal and homeopatic	9,330	26	10.5	0.31
Monthly spending for consultation fees	112,756	361	7.7	2.72
Monthly spending for nursing & physiotherapy	6,387	26	50.6	1.02

***** For patients with any spending on this item.**

Table 3.10 presents recurrent spending for chronic conditions by various population groups. Mean annual spending did not differ much between various groups, with the exception of the richest 20% of the population, which devotes significantly higher amount than the poorest 20% of the society. In addition, the share of those who pay these costs are higher among the richest quintile than in poorer ones. Finally, beneficiaries of the *State Program for Population below Poverty Line* are more likely to face these costs then non-beneficiaries (26.4% and 19.2% respectively), but pay relatively less (241 Gel vs. 287 Gel).

Table 3.9 Annual expenditure for chronic conditions

Type of Expenditure for Chronic Patient	Weighted Count of individuals who paid during last year	Count of individuals who faced expenditure during last year	Mean per chronic patient per annum (Gel)***	Per Capita Annualized Expenditure (Gel)
Annual TOTAL diagnostic costs	222,081	678	162.0	5.29
Annual diagnostic costs for clinical laboratory	126,517	388	41.1	1.37
Annual diagnostic costs for x-ray	35,273	109	30.0	0.28
Annual diagnostic costs for ultrasound	61,064	194	28.4	0.46
Annual diagnostic costs for CT	8,717	22	116.7	0.27
Annual diagnostic costs for other services	30,296	91	38.1	0.30
Annual cost for medical equipment	16,967	55	32.5	0.15

***** For patients with any spending on this item.**

Table 3.10 Recurrent annual expenditure for chronic conditions by various population groups.

Population Group	Share of Population from this group that faced expenditure	Mean Annual Recurrent Spending Per Patient (Gel)	Share in Total Expenditure for Chronic Conditions
By Type of Residence			
Urban	20.3%	274	49%
Rural	19.4%	283	51%
Total for Georgia	**19.9%**	**279**	**100%**
By Location of Residence			
Tbilisi	17.7%	293	24%
East Georgia	20.4%	277	35%
West Georgia	20.7%	273	41%
HH Consumption Quintile Groups			
Poorest 20%	15.2%	215	12%
2nd	19.7%	283	20%
3rd	21.9%	254	20%
4th	20.9%	288	22%
Richest 20%	23.3%	325	27%
By beneficiaries of State Program for Population below poverty line*			
Beneficiaries (score up to 70000)	26.4%	241	16%
Non beneficiaries (score above 70000 or no score)	19.2%	287	84%

* Statistically significant difference P<0.01

The patients who referred to self-treatment without consulting a provider mainly faced costs related to drug purchase. They also paid for medical supplies and equipment and sometimes for diagnostic services. These expenditure estimates are detailed in Table 3.11. For NHA tables spending on drugs, supplies and medical equipment are attributed to *retail sale and other*

providers of medical goods (HP4). As for diagnostic costs they were attributed to *Medical and diagnostic laboratories* (HP 3.5).

Table 3.11 Health expenditure for self-treatment

Type of Expenditure for self-treatment	Weighted Count of individuals who faced expenditure	Count of individuals who faced expenditure	Mean spending per case of self-treatment (Gel)	Per Capita Annualized Expenditure (Gel)
For medications/drugs	269,713	852	12.6	10.70
For medical supplies other than drugs	20,986	59	12.6	0.84
For diagnostic services	4,060	9	16.4	0.21

Table 3.12 describes differences in expenditure on self-treatment among various population groups. Most self-treatment costs are attributed to drug expenditure not covered by any state or private insurance; hence, the differences observed in mean expenditure are probably determined by differences in purchasing power of individuals/households. In addition, the share of individuals who referred to self-treatment was higher among urban and Tbilisi residents probably due to better geographic access to retail pharmacies. Due to fact that State Program for Population below Poverty Line is not providing drug benefits, the mean amount that is paid for self treatment as well as the share of those who undertook such treatment were comparable between beneficiary and non-beneficiary groups and differences were not statistically significant.

Table 3.12 Expenditure for self-treatment by various population groups.

Population Group	Share of Population from this group that faced expenditure	Mean spending per case of self-Treatment (Gel)	Share in Total Expenditure for self-treatment
By Type of Residence			
Urban	8.5%	14.9	63%
Rural	6.2%	11.5	37%
Total for Georgia	7.3%	**13.4**	**100%**
By Location of Residence			
Tbilisi	8.9%	15.4	35%
East Georgia	7.1%	11.5	29%
West Georgia	6.4%	13.6	36%
HH Consumption Quintile Groups			
Poorest 20%	5.6%	11.0	12%
2nd	7.0%	12.7	18%
3rd	6.9%	11.6	16%
4th	7.8%	12.3	20%
Richest 20%	8.4%	20.1	34%
By beneficiaries of State Program for Population below poverty line			
Beneficiaries (score up to 70000)	7.9%	12.9	14%
Non beneficiaries (score above 70000 or no score)	7.3%	13.5	86%

3.2.4 Expenditure on ambulance services

The survey captured 210 cases of ambulance service utilization among the surveyed population or 18.1 per 1,000 individual in the sample. Out of total ambulance calls, 73% were for government ambulance services and therefore most users (84.4% out of those 96 who reported paying for this service) reported zero expenditure, and only 15 respondents (15.6%) recalled the amount spent on ambulance services. The variation of the reported amount was significant and ranged from three to 600 Gel. Therefore, the survey does not provide sufficient cases for reliable national level ambulance expenditure estimates. However, the high number of ambulance calls that were offered at no cost shows that state subsidized ambulance care (initiated in 2005) is generally being delivered to the population.

3.2.5 Summary of Health Care Expenditure by Functions

This section summarizes and converts all household expenditures into annualized per/capita consumption grouped by function of care, which is based on International Classification for Health Accounts scheme for Health Care Functions (ICHA-HC).

Estimates of annualized per capita expenditure by age-sex group are given in the annexe.

Table 3.13 Annualized per capita expenditure by health care functions

Health Care Functions	ICHA-HC code	Annual Per Capita Expenditure (Gel)
Services of Curative Care	**HC 1**	**80.5**
Inpatient curative care	**HC 1.1**	**39.3**
OB & Gyn	HC 1.1.3	4.5
Oncology	HC 1.1.4	-
Tuberculosis	HC 1.1.5	0.1
Pediatrics	HC 1.1.8	1.6
Other	HC 1.1.9	33.1
Day cases of curative care	**HC 1.2**	-
Outpatient curative care	**HC 1.3**	**41.2**
Basic medical and diagnostic services	HC 1.3.1	17.7
Outpatient dental care	HC 1.3.2	9.4
All other specialized medical services	HC 1.3.3	11.6
All other outpatient curative care	HC 1.3.9	1.1
Services of Curative Home Care	**HC 1.4**	1.4
Services of rehabilitative care	**HC 2**	-
Services of Long-Term Nursing Care	**HC 3**	-
Ancilliary services to medical care	**HC 4**	**29.6**
Clinical laboratory	HC 4.1	4.6
Diagnostic imaging	HC 4.2	1.9
All other miscellaneous ancillary services	HC 4.9	23.1
Medical goods dispensed to outpatients	**HC 5**	106.0
Pharmaceuticals and other medical nondurables	HC 5.1	104.6
Therapeutic appliances and other medical durables	HC 5.2	1.4
Total		**216.2**

Notre: On this and other tables, the magnitude of the estimates for 'other' will be affected by the availability or not of disaggregated information on other categories in the group.

3.3 Health Care Expenditure by Providers of Care

The analysis also examined the distribution of household expenditure on health by type of provider (e.g. hospitals, outpatient facilities, retail pharmacies etc.). The providers were classified based on International Classification for Health Accounts scheme for *Health Care Providers* (ICHA-HP). For simplicity reasons annual per-capita expenditures were estimated for each provider and are detailed in Table 3.15. This table also provides crosswalk for COICOP classification and allows comparison of our findings with IHS survey findings implemented quarterly by SDS.

Based on these findings, SDS implemented quarterly IHS captures three times less expenditure then HUES. Detailed analysis shows that the differences vary significantly between various services: e.g. IHS underestimates hospital expenditure by almost four times, while outpatient services are only 1.5 times less than in HUES. These differences are probably due to the different purposes of these two surveys. It is well known that focused health surveys capture illness episodes and costs of treatment much better than *Household Budget Surveys,* which record various expenditure items out of which health is just one element.

3.4 Share of household expenditure devoted to health

Table 3.14 provides details about household health care spending levels, giving the share of those households that faced health expenditure (for OP care, for drugs or for hospital services). The table also includes mean monthly expenditure among those households that had any expenditure and annualized spending per household. Mean expenditures were higher in urban locations and in Tbilisi. Households in Tbilisi and in the richest quintile spend the highest mean amount per month. However, when health care expenditures are evaluated against monthly household consumption from the IHS, we see that the poorest quintile spends a much larger proportion of their monthly consumption on health than the the richest quintile (see Table 3.14). Beneficiaries of the State subsidized services spend less on health, in absolute terms (50 Gel), then non-beneficiaries (71 Gel). However as a share of monthly consumption they devote more to health then non-beneficiary households.

Care is needed in interpreting the share of expenditure going to health that is shown in this table. It compares estimates of health expenditure that are collected in considerable detail with the overall consumption aggregate from the IHS. The latter has not been adjusted for any under-reporting of other elements of consumption, while the health expenditure effectively has been. The share of healthcare expenditure calculated in this way is therefore probably an overestimate and is significantly higher than the share reported in the IHS. However, it is presented because the patterns of this measure across different groups are informative and are likely to be broadly correct, even if the level may be too high.

Table 3.14 Household health care expenditure

Population Group	Share of Households that faced health care expenditure	Share of HH monthly consumption devoted to health*	Mean monthly household spending (across all HHs, Gel)
By Type of Residence*			
Urban	75%	15.7	76
Rural	73%	13.6	60
Total for Georgia	74%	14.7	68
By Location of Residence			
Tbilisi	73%	15.8	84
East Georgia	72%	14.2	53
West Georgia	77%	14.4	69
HH Consumption Quintile Groups			
Poorest 20%	65%	19.1	43
2nd	75%	16.3	61
3rd	77%	14.5	64
4th	74%	13.0	72
Richest 20%	77%	11.2	93
By beneficiaries of State Program for Population below poverty line			
Beneficiaries (score up to 70000)	77%	17.4	50
Non beneficiaries (score above 70000 or no score)	73%	14.2	71

* See note in the main text about the interpretation of this measure.

3.5 Household expenditure estimates for NHA

Total household expenditure estimates for *National Health Accounts* purposes were constructed from the survey findings and are detailed in Table 3.16 and Table 3.17 below.

During June 2006 – July 2007 Georgian households spent about 822.7 million Gel or 462.2 million USD at current exchange rate[16]. This spending levels amount to almost 6.0 % of 2006 GDP[17] and in *Per Capita* terms household health expenditure amounts to 216 Gel or 121.5 USD per annum.

Out of this amount, the population spends 34% at hospitals, 17% at outpatient facilities, and 49% at retail drug stores. Out of hospital level spending 52% of expenditure, or 143.5 million Gel, occurs at general hospitals and 48% (132.4 million Gel) is spent at specialty hospitals (excluding mental health and substance abuse hospitals). More details on hospital level spending are provided in Figure 3.1 and Figure 3.2. Out of hospital level spending 54% (or around 150 million Gel) is paid for inpatient curative care, 25% (or around 70 million Gel) for outpatient curative care services offered by hospital facilities, and 21% (or around 56.6 million Gel) is paid for ancillary services to medical care.

[16] For 2006 SDS reported average exchange rate 1.78 Gel per USD.

[17] According to SDS preliminary estimates for nominal GDP in 2006 amounted to 13,784 million Gel.

From the total household spending on health 18% (or 150 million Gel) is used to pay inpatient curative care services, 19% (or 156.9 million Gel) pays for outpatient curative care services and 14% (or about 113 million Gel) for ancillary services to medical care. The largest expenses are on pharmaceuticals and medical goods dispensed to outpatients at 49% (or around 403.4 million Gel).

Figure 3.1 Structure of hospitals level spending

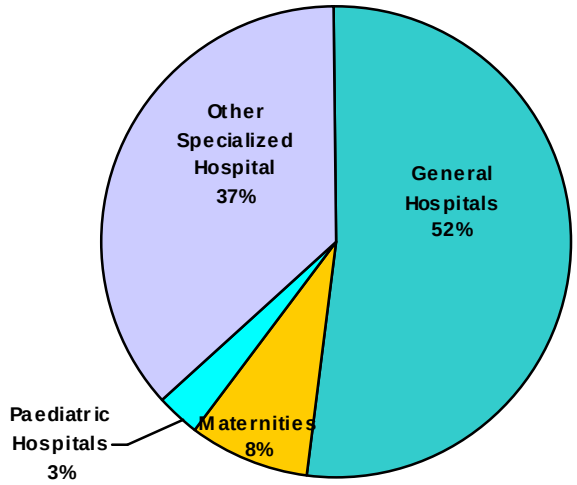


Figure 3.2 Health expenditure on Hospitals annualized per capita Gel

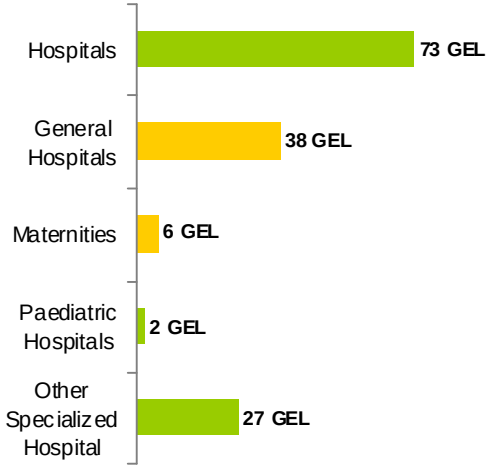


Table 3.15 Annualized per capita expenditure by providers of care

Providers Of Health Care Services	ICHA-HP Code	COICOP Code	HUES Annual Per Capita Expenditure (Gel)	SDS/IHS Annual Per Capita Expenditure (Gel)	Adjusting Factor
Hospitals	**HP 1**	**6.3**	**72.5**	**17.1**	**4.23**
General Hospitals	HP 1.1	06.3.1	37.7	7.6	4.99
Mental health and substance abuse hospitals	HP 1.2	06.3.2	-	7.1	9.41
Specialty (other than mental health and substance abuse) hospitals	HP 1.3	06.3.2	34.8		
Paediatric Hospitals	HP 1.3.2	06.3.2	5.7		
TB Hospitals	HP 1.3.4	06.3.2	0.1		
Other Specialized Hospital	HP 1.3.9	06.3.2	26.6		
Maternities	HP 1.3.1	06.3.3	5.7	2.4	2.34
Providers of ambulatory health care	**HP 3**	**6.2**	**37.7**	**25.3**	**1.49**
Offices of physicians and Village ambulatories	HP 3.1	06.2.1	2.9	15.7	1.32
Outpatient care centres	HP 3.4	06.2.1	15.5		
Providers of home health care services	HP 3.6	06.2.1	1.4		
Other providers of ambulatory health care	HP 3.9	06.2.1	1.1		
Offices of dentists	HP 3.2	06.2.2	11.3	3.3	3.39
Nursing and residential care facilities	**HP 2**	**06.2.3**	**-**	**8.4**	**0.7**
Medical and diagnostic laboratories	HP 3.5	06.2.3	5.6		
Retail sale and other providers of medical goods	**HP 4**	**6.1**	**106.0**	**29.7**	**3.57**
Dispensing chemists	HP 4.1	06.1.1	104.6	29.5	3.54
Retail sale and other suppliers of hearing aids	HP 4.3	06.1.1	-		
Retail sale and other suppliers of medical appliances (other than optical glasses and hearing aids)	HP 4.4	06.1.2	1.0	0.1	14.28
All other miscellaneous sale and other suppliers of pharmaceuticals and medical goods	HP 4.9	06.1.2	0.5		
Retail sale and other suppliers of optical glasses and other vision products	HP 4.2	06.1.3	-	0.1	
Total Household Level Health Expenditure		**Division 06**	**216.2**	**72.1**	**3.00**

Table 3.16 Estimates of household health expenditure by (cross tab Providers by Functions)

Providers Of Health Care Services	ICHA-HP Code	Total (Gel)	Inpatient Curative Care HC1.1	Outpatient Curative Care HC 1.3	Ancilliary services to medical care HC4
Hospitals	**HP 1**	**275,773,529**	**149,664,785**	**69,510,622**	**56,598,123**
General Hospitals	HP 1.1	143,359,934	70,957,715	36,261,511	36,140,707
Specialty (other than mental health and substance abuse) hospitals	HP 1.3	132,413,596	78,707,069	33,249,111	20,457,416
Maternities	HP 1.3.1	21,800,082	17,276,533	2,207,023	2,316,526
Paediatric Hospitals	HP 1.3.2	9,195,581	6,178,478	1,253,345	1,763,758
TB Hospitals	HP 1.3.4	322,701	302,371	-	20,330
Other Specialized Hospital	HP 1.3.9	101,095,230	54,949,687	29,788,743	16,356,801
Nursing and residential care facilities	**HP 2**	**-**			
Providers of ambulatory health care	**HP 3**	**143,571,140**	**-**	**87,369,365**	**56,201,775**
Offices of physicians = Village ambulatories	HP 3.1	11,069,231		9,691,221	1,378,010
Offices of dentists	HP 3.2	42,987,300		35,962,557	7,024,743
Outpatient care centres	HP 3.4	58,894,935	-	32,291,940	26,602,995
All other outpatient multi-specialty and cooperative service centres	HP 3.4.5	14,955,975		5,386,172	9,569,803
Polyclinics	HP 3.4.6	34,441,364		21,344,677	13,096,686
Women Consultations	HP 3.4.7	6,159,080		2,222,574	3,936,505
All other outpatient community and other integrated care centres	HP 3.4.9	3,338,516		3,338,516	-
Medical and diagnostic laboratories	HP 3.5	21,196,027			21,196,027
Providers of home health care services	HP 3.6	5,145,619		5,145,619	
Other providers of ambulatory health care	HP 3.9	4,278,028	-	4,278,028	-
Ambulance services	HP 3.9.1	401,433		401,433	
All other ambulatory health care services	HP 3.9.9	3,876,596		3,876,596	
Retail sale and other providers of medical goods	**HP 4**	**403,378,634**	**-**	**-**	**-**
Dispensing chemists	HP 4.1	397,955,688			
Retail sale and other suppliers of optical glasses and other vision products	HP 4.2	-			
Retail sale and other suppliers of hearing aids	HP 4.3	-			

Providers Of Health Care Services	ICHA-HP Code	Total (Gel)	Inpatient Curative Care HC1.1	Outpatient Curative Care HC 1.3	Ancilliary services to medical care HC4
Retail sale and other suppliers of medical appliances (other than optical glasses and hearing aids)	HP 4.4	3,692,141			
All other miscellaneous sale and other suppliers of pharmaceuticals and medical goods	HP 4.9	1,730,806			
Total Household Level Health Expenditure (Gel)		**822,723,304**	**149,664,785**	**156,879,987**	**112,799,898**

Table 3.17 Estimates of household health expenditure by (cross tab Functions by Providers)

Health Care Functions	ICHA-HC code	Total (Gel)	Hospitals HP1	Providers of ambulatory health care HP 2
Services of Curative Care	**HC 1**	**306,544,772**	**219,175,406**	**87,369,365**
Inpatient curative care	**HC 1.1**	**149,664,785**	**149,664,785**	**-**
OB & Gyn	HC 1.1.3	17,276,533	**17,276,533**	
Oncology	HC 1.1.4	-		
Tuberculosis	HC 1.1.5	302,371	302,371	
Paediatrics	HC 1.1.8	6,178,478	6,178,478	
Other	HC 1.1.9	125,907,402	125,907,402	
Day cases of curative care	**HC 1.2**	-	-	
Outpatient curative care	**HC 1.3**	**156,879,987**	**69,510,622**	**87,369,365**
Basic medical and diagnostic services	HC 1.3.1	67,297,409	36,261,511	31,035,898
Outpatient dental care	HC 1.3.2	35,962,557		35,962,557
All other specialized medical services	HC 1.3.3	44,196,373	33,249,111	10,947,262
All other outpatient curative care	HC 1.3.9	4,278,028		4,278,028
Services of Curative Home Care	HC 1.4	5,145,619		5,145,619
Services of rehabilitative care	**HC 2**	-		

Services of Long-Term Nursing Care	**HC 3**	-		
Ancillary services to medical care	**HC 4**	**112,799,898**	**56,598,123**	**56,201,775**
Clinical laboratory	HC 4.1	17,547,847	13,017,568	4,530,279
Diagnostic imaging	HC 4.2	7,280,313	3,961,869	3,318,445
All other miscellaneous ancillary services	HC 4.9	87,971,738	39,618,686	48,353,052
Medical goods dispensed to outpatients	**HC 5**	**403,378,634**		
Pharmaceuticals and other medical nondurable	HC 5.1	397,955,688		
Therapeutic appliances and other medical durables	HC 5.2	5,422,946		
Total Household Level Health Expenditure (Gel)		**822,723,304**	**275,773,529**	**143,571,140**

Annex A Additional tables: illness and use of health services

Table A.1 Sickness rates and conditions

Indicator	data source	Total	Urban	Rural	pilot regions (rural) [18]	other rural	benefic iaries [19]	non benefic iaries	0-14 yrs.	15-60 yrs.	60+ yrs.
number of cases (unweighted)		11848	4433	7415	5710	1705	1841	10007	2072	7243	2532
Percentage of total population with chronic disease	C2	37.1	37.5	36.7	35.5	39.5	50.0	35.0	9.0	31.5	76.3
Percentage of total population with acute sickness during last 30 days	C4+C5	15.6	18.9	12.6	13.1	11.3	16.0	15.6	15.3	14.1	20.4

[18] Pilot regions defined as: rural Ajara, rural Kakheti, rural Imereti, rural Shida Kh., rural Kvemo Kh.

[19] Beneficiaries of a state programme (classified as beneficiaries if score up to 70000; not beneficiaries if score above 70000 or no score).

Table A.2 Chronic diseases

	Total	Urban	Rural	pilot	other rural	beneficiaries [20]	non beneficiaries	0-14 yrs.	15-60 yrs.	60+ yrs.
people with any chronic disease	37.1	37.5	36.7	35.5	39.5	50.0	35.0	9.0	31.5	76.3
people with two or more chronic diseases	11.0	12.3	9.9	9.7	10.3	17.7	10.0	0.5	7.0	31.3
% of occurrence										
Diabetes	3.5	4.0	3.1	3.2	3.0	2.6	3.8	0.8	3.1	4.2
Hypertension	19.1	18.3	19.9	20.3	19.1	21.1	18.6	-	13.0	26.8
Other heart of circulatory system	12.6	13.4	11.8	11.9	11.7	12.5	12.7	3.7	10.7	15.3
Rheumatism, arthritis	8.9	6.9	10.8	10.8	10.9	8.8	8.9	1.3	7.7	10.6
Goitre	3.4	3.4	3.4	3.0	4.2	2.2	3.7	6.5	5.7	0.7
Neurological disorder	5.1	4.9	5.2	4.9	5.9	5.8	4.9	13.0	6.7	2.8
Psycho-emotional disorders	1.1	0.9	1.4	1.2	1.8	2.4	0.8	1.9	1.6	0.6
Tuberculosis	0.4	0.2	0.7	0.8	0.4	1.1	0.3	0.5	0.6	0.3
Cancer	1.2	1.2	1.1	1.1	1.2	1.1	1.1	0.7	0.8	1.6
Asthma	2.1	1.9	2.3	2.4	2.1	1.9	2.1	6.3	2.0	1.9
Gallstones	1.7	1.7	1.7	1.7	1.6	1.4	1.7	-	1.7	1.8
Allergy	1.9	2.0	1.7	1.8	1.4	1.3	2.0	7.3	2.8	0.5
Ulcers	1.8	1.8	1.8	1.8	1.6	1.4	1.9	1.1	2.6	1.0
Other gastrointestinal	5.6	5.8	5.5	5.9	4.5	4.6	5.9	9.0	6.1	4.9
Other hepatic, biliary	4.9	5.8	4.0	3.6	4.9	4.3	5.0	-	6.3	3.8
Other respiratory	2.2	2.4	2.1	2.1	1.9	1.9	2.3	11.7	2.4	1.4
Other musculo-skeletal	6.9	6.7	7.1	7.2	6.7	8.9	6.4	5.0	6.7	7.1
Other gynaecological	2.7	2.7	2.6	3.1	1.5	2.0	2.8	-	5.0	0.5
Other eye chronic diseases	4.5	3.9	5.1	4.8	5.8	6.2	4.1	8.9	2.7	6.1
Other chronic diseases	10.5	12.1	8.8	8.3	9.9	8.3	11.0	22.5	11.8	8.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

QC1 “Does name suffer from any chronic disease – that is one that has lasted or will last more than one year?” QC2 “What is it?” Base: 11.848 cases, weighted

[20] Beneficiaries of a state programme (classified as beneficiaries if score up to 70000; not beneficiaries if score above 70000 or no score).

Table A.3 Acute sickness during last 30 days

	Total	Urban	Rural	pilot	other rural	beneficiaries [21]	non beneficiaries	0-14 yrs.	15-60 yrs.	60+ yrs.
people with one acute sickness last 30 days	15.6	18.9	12.6	13.1	11.3	16.0	15.6	15.3	14.1	20.4
people with an additional acute sickness during the last 30 days	1.0	1.4	0.7	0.7	0.6	0.8	1.0	0.6	0.9	1.6
% occurrence of sickness										
Respiratory: pneumonia, influenza, bronchitis, pharyngities	42.0	42.6	41.2	40.8	42.4	42.9	41.8	69.2	37.8	34.4
Cardiovascular: chest pain, cardialgia, hypertension attacks	16.1	15.6	17.0	16.7	17.8	13.6	16.6	0.2	16.2	25.4
Abdominal: cramps, abdominal pain. nausea,	5.3	4.6	6.3	7.1	4.3	6.3	5.1	4.1	5.6	5.3
Neurological: attack of migraine, stroke, myositis, neuralgi	5.0	4.5	5.9	6.1	5.2	5.4	5.0	0.4	5.9	6.1
Road traffic accidents	0.3	0.3	0.2	0.3	0.0	0.0	0.3	0.0	0.5	0.0
Harm purposely inflicted by others	0.0	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.1	0.0
Other trauma/injury	3.7	3.0	4.8	4.8	4.7	5.8	3.4	2.4	3.4	5.1
Poisoning/intoxication	1.0	0.9	1.1	1.1	1.1	0.9	1.0	1.8	0.8	0.9
Skin problems: rash, other skin diseases (dermatitis)	1.6	1.9	1.1	1.3	0.5	1.0	1.6	2.5	1.3	1.5
Urogenital: cystitis, pyelonephritis, endometritis, prostate	5.8	4.0	8.5	8.3	9.0	7.8	5.5	0.5	6.2	8.1
Other infectious diseases: diphtheria, tetanus, hepatitis	0.9	1.5	0.0	0.0	0.0	0.8	0.9	4.3	0.3	0.0
Pregnancy related problems: abortion, delivery complications	0.5	0.2	1.0	1.0	1.1	0.6	0.5	0.0	1.0	0.0
Psychological/mental problems: acute neurosis, depression	1.5	2.2	0.5	0.6	0.4	1.9	1.5	0.0	2.4	0.8
DENTAL CARE (curative)	7.6	9.3	5.1	3.9	8.3	6.1	7.9	8.1	9.8	3.0
Other acute illness	8.5	9.4	7.2	8.0	5.2	6.4	8.9	6.5	8.8	9.3
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

QC3+4 “Has (name) been sick with (anything else) in the last 30 days?” Base: 11.848 cases, weighted to reflect population size

[21] Beneficiaries of a state programme (classified as beneficiaries if score up to 70000; not beneficiaries if score above 70000 or no score).

Table A.4 Additional acute sickness during last 30 days

Condition	Total	Urban	Rural	pilot	other rural	beneficiaries [22]	non beneficiaries	0-14 yrs.	15-60 yrs.	60+ yrs.
Respiratory: pneumonia, influenza, bronchitis, pharyngities	7.0	8.7	5.5	5.6	5.1	7.3	7.0	11.0	5.7	7.6
Cardiovascular: chest pain, cardialgia, hypertension attacks	2.7	3.2	2.3	2.3	2.1	2.3	2.8	0.0	2.4	5.6
Abdominal: cramps, abdominal pain. nausea,	0.9	0.9	0.8	1.0	0.5	1.1	0.9	0.6	0.8	1.2
Neurological: attack of migraine, stroke, myositis, neuralgi	0.8	0.9	0.8	0.8	0.6	0.9	0.8	0.1	0.9	1.3
Road traffic accidents	0.0	0.1	0.0	0.0	-	-	0.1	-	0.1	-
Harm purposely inflicted by others	0.0	0.0	-	-	-	0.1	-	-	0.0	-
Other trauma/injury	0.6	0.6	0.6	0.7	0.6	1.0	0.6	0.4	0.5	1.1
Poisoning/intoxication	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.3	0.1	0.2
Skin problems: rash, other skin diseases (dermatitis)	0.3	0.4	0.1	0.2	0.1	0.2	0.3	0.4	0.2	0.3
Urogenital: cystitis, pyelonephritis, endometritis, prostati	1.0	0.8	1.1	1.1	1.1	1.3	0.9	0.1	0.9	1.8
Other infectious diseases: diphtheria, tetanus, hepatitis, m	0.1	0.3	-	-	-	0.1	0.1	0.7	0.0	-
Pregnancy related problems: abortion, delivery complications	0.1	0.0	0.1	0.1	0.1	0.1	0.1	-	0.1	-
Psychological/mental problems: acute neurosis, depression, o	0.3	0.4	0.1	0.1	0.1	0.3	0.2	-	0.4	0.2
DENTAL CARE (curative)	1.3	1.9	0.7	0.5	1.0	1.0	1.3	1.3	1.5	0.7
Other acute illness	**1.4**	**1.9**	**1.0**	**1.1**	**0.6**	**1.1**	**1.5**	**1.0**	**1.3**	**2.1**

QC3+4 “Has (name) been sick with (anything else) in the last 30 days?” Base: 11.848 cases, weighted to reflect population size

[22] Beneficiaries of a state programme (classified as beneficiaries if score up to 70000; not beneficiaries if score above 70000 or no score).

Table A.5 Utilisation, physical and financial access to health services

Indicator	data source	Total	Urban	Rural	pilot region	other rural	beneficiaries [23]	non beneficiaries	0-14 yrs.	15-60 yrs.	60+ yrs.
Percentage of total population who reported to be sick in last 6 months[24]	C6,C12, C13	53.5	56.2	51.0	49.5	54.6	63.9	51.9	38.1	47.0	85.0
Percentage of total population who reported to be sick in last 6 months who consulted healthcare provider	C6,C12, C13	59.1	59.6	58.6	57.1	61.7	58.3	59.3	66.5	56.9	59.8
Percentage of all first consultations that are done at a PHC level	E	52.7	52.4	53.1	52.7	54.0	59.8	51.4	62.3	48.0	56.0
Percentage of total population access within 15 minutes by normal means of travel to a facility where they would normally see a doctor	D9	42.0	55.0	31.3	33.7	25.8	33.2	43.6	41.2	43.8	37.5
Percentage of total population access within 30 minutes by normal means of travel to a facility where they would normally see a doctor	D9	81.5	92.8	72.2	74.5	67.0	82.7	81.3	80.9	82.2	80.1
Median travel time to place(s) of consultation for last consultation	E5	30 min	25 min	40 min	40 min	60 min	30 min	30 min	--	--	--
Percentage of patients who were able to obtain medications prescribed by doctor during last consultation	E10	84.3	83.7	84.9	83.8	87.0	75.8	86.1	92.6	83.4	82.6
Percentage of patients who were able to get needed lab tests at the same place they went for last consultation.	E13	84.4	84.1	84.7	85.3	83.6	84.7	84.3	79.8	84.8	85.0
Percentage of occurrences of sickness in last 30 days, where no medical care outside the house was taken up	F22	40.7[25]	40.5	40.9	41.1	40.5	40.5	38.7	41.1	33.6	44.1

[23] Beneficiaries of a state programme (classified as beneficiaries if score up to 70000; not beneficiaries if score above 70000 or no score).

[24] 37.1% of the total population report to be chronically ill, and an additional 8.7% report to have had an acute sickness during the last 30 days, without being chronically ill. Furthermore, 7.7% report to have been sick during the last 6 months, without being chronically ill nor with an acute sickness during the last 30 days. Hence, a total of 53.5% report to have been sick during the last 6 months, one way or the other. Out of those, 59.1% stated that they had consulted a health service provider. This is based on answers to questions C6, C12 and C13. If person had an acute sickness (C3/C4) answer to C6 relevant. If person had not been sick during last 30 days, but had been sick during last 6 months (C11), answer to C12 is relevant. If person stated not to have been sick either during the last 30 days, or during the last 6 months, but is chronically ill, then answer to C13 is relevant.

[25] Base: 37.1% cases who answered F22. This is every occurrence of an acute sickness and those occurrences of chronic illnesses where the person has, in the last 30 days, had an additional treatment or an additional consultation because of exacerbation of this illness (F11=1)

Indicator	data source	Total	Urban	Rural	pilot region	other rural	beneficiaries [23]	non beneficiaries	0-14 yrs.	15-60 yrs.	60+ yrs.
Percentage of occurrences of sickness in last 30 days, where no medical care outside the house was taken up, because it was too expensive/not enough money available[26]	F23	18.8[27]	16.5	21.6	21.4	22.3	24.0	17.7	5.3	20.4	21.2
Percentage of consultations where medicine was prescribed	E7	82.1	77.8	86.6	87.4	85.3	84.8	81.5	77.0	79.6	88.2
Percentage of consultations where medicine was prescribed but not purchased because it was too expensive (base: all consultations)	E11	11.8	11.8	11.9	12.8	10.1	19.4	10.3	4.8	12.0	14.6
Percentage of consultations where a lab test was prescribed	E12	43.5	42.5	44.5	43.2	46.9	43.7	43.4	25.7	48.5	42.9
Percentage of consultations where a lab test was prescribed but not done because it was too expensive (base: all consultations)	E16	4.2	3.2	5.3	5.4	5.3	3.2	6.9	3.7	1.2	4.6
Percentage of population who were reported to need hospitalisation in the last year but were not hospitalised	H1	15.9	12.3	19.3	19.8	18.1	12.3	23.1	14.7	14.4	14.7
Percentage of population who were reported to need hospitalisation in the last year but were not hospitalised because it was too expensive/they did not have enough money (base: total)	H5	13.7	11.1	16.2	17.1	13.9	11.1	19.5	12.8	12.1	12.7
Percentage of patients who got a receipt for all payments made	F28	35.4	41.1	28.0	26.6	31.7	29.5	36.3	37.1	37.5	30.3
Percentage of respondents who expect to pay for a consultation with a doctor at the nearest facility	D12	64.6	72.1	58.0	64.0	45.6	52.3	67.1	64.0	45.6	72.1
Percentage of population covered by any health insurance (government, private or employer)	B10	14.1	9.5	18.5	18.0	19.6	75.4	4.1	13.0	12.0	21.2
Percentage of population covered by state health insurance	B10	12.7	6.9	18.2	17.7	19.5	75.3	2.5	11.8	10.4	20.3
Percentage of population covered by other health insurance (mainly through employer)	B10	0.4	0.7	0.1	0.2	0.0	0.1	0.4	0.2	0.4	0.5
Percentage of population covered by private health insurance	B10	1.0	1.9	0.1	0.1	0.1	0.1	1.1	1.0	1.2	0.4

[26] Reasons for not taking any care outside the household; combination of primary and secondary reasons given. Denominator is total number of occurrences.

[27] Base: 37.1% cases who answered F22.

Indicator	data source	Total	Urban	Rural	pilot region	other rural	beneficiaries [23]	non beneficiaries	0-14 yrs.	15-60 yrs.	60+ yrs.
Overall number of consultations per capita per annum[28]	F25	2.01	2.36	1.67	1.65	1.70	2.39	1.95	1.67	1.71	3.14
Utilisation of Village Ambulatory facilities per capita per annum	F25	0.17	0.01	0.33	0.29	0.43	0.43	0.13	0.10	0.12	0.40

Table A.6 Women who gave birth during last 24 months

Indicator	data source	Total	Urban	Rural	pilot region	other rural	beneficiaries [29]	non beneficiaries	0-14 yrs.	15-60 yrs.	60+ yrs.
Percentage of women who delivered a child in the last two years who had at least 4 prenatal visits.	D22	83.8	92.4	73.5	74.9	n/a[30]	n/a	83.7	n/a	n/a	n/a
Percentage of women who delivered a child in the last two years who had at least 5 prenatal visits.	D22	51.8	65.4	35.5	41.2	n/a	n/a	54.1	n/a	n/a	n/a
Percentage of women who gave birth in the last 24 months who had a urine test during the pregnancy.	D23	94.7	95.4	93.6	91.2	n/a	n/a	96.2	n/a	n/a	n/a
Percentage of women who gave birth in the last 24 months whose blood pressure was measured during the pregnancy; and mean number of times	D25	97.5%	98.3	96.4	95.0	n/a	n/a	98.9	n/a	n/a	n/a
Percentage of women who gave birth in the last 24 months whose blood pressure was measured during the pregnancy; and mean number of times	D25 mean	6.3	6.9	5.4	6.1	n/a	n/a	6.4	n/a	n/a	n/a

[28] Based on consultations during last 30 days, multiplied by 12, QF25. I.e. every consultation during the last 30 days multiplied by 12 and divided by the size of the (relevant segment of the) population. There are some cases where the period of consultation is ambiguous. If they were all included, overall consultations per person per annum would be 2.26.

[29] Beneficiaries of a state programme (classified as beneficiaries if score up to 70000; not beneficiaries if score above 70000 or no score).

[30] Base too small: In 90 households in pilot regions at least one women had given birth during last two years, but only in 19 hhs in other rural areas. Respective number for urban areas is 87 hhs. Only in 21 vulnerable hhs a woman has given birth during the last 24 months (but in 174 non-vulnerable hhs).

Table A.7 Self-reported health status and risk factors

Indicator	data source	Total	Urban	Rural	pilot region	other rural	beneficiaries [31]	non beneficiaries	0-14 yrs.	15-60 yrs.	60+ yrs.
Health status reported to be excellent/very good/good during last 4 weeks (rather than fair/poor/very poor)	B7	51.0	52.4	49.6	51.0	46.3	36.9	53.3	83.2	55.7	9.6
Percentage of households with any member given advice on the health lifestyles (diet) in the last year	D13	18.2	17.9	18.6	16.1	23.8	20.2	17.9	16.1	23.8	17.9
Percentage of households with any member given advice on the health lifestyles (exercise) in the last year	D14	7.0	8.3	5.7	4.1	9.2	8.1	6.8	4.1	9.2	8.3
Percentage of adults aged 30 and over for whom blood pressure measured during last 12 months.	B8	38.7	37.6	39.7	36.1	47.9	47.3	37.1	n/a	30.2	54.5
Percentage of population aged 12 and over that have smoked in the last month	B9	21.2	21.8	20.6	19.8	22.5	19.6	21.4	n/a	25.6	12.1

[31] Beneficiaries of a state programme (classified as beneficiaries if score up to 70000; not beneficiaries if score above 70000 or no score).

Table A.8 Place of treatment

Place where consultation or care was received for a sickness during the last 30 days

	Total	Urban	Rural	pilot	other rural	beneficiaries [32]	non beneficiaries	0-14 yrs.	15-60 yrs.	60+ yrs.
Home visit	9.3	10.6	7.5	8.7	4.6	13.0	8.5	9.0	4.6	16.7
Village Ambulatory Centre	8.7	0.5	19.7	17.4	25.0	18.1	6.8	5.9	6.9	12.7
Polyclinic	24.0	27.1	19.8	20.6	18.0	22.3	24.3	38.3	20.1	23.9
Dispensary	0.4	0.5	0.2	0.3		0.4	0.4		0.4	0.4
Women's consultation clinic	2.2	2.4	2.0	1.9	2.2	1.5	2.4		4.1	0.2
hospital (as an outpatient)	24.2	23.5	25.0	27.3	19.7	20.2	25.0	17.2	27.2	22.4
hospital (as an inpatient)	3.8	3.9	3.7	3.5	4.2	3.6	3.9	6.7	3.8	2.6
Dental clinic	8.4	10.1	6.0	5.4	7.4	4.8	9.1	9.7	11.6	2.8
Diagnostic centre	2.2	2.8	1.3	1.4	1.2	0.5	2.5	0.6	3.4	0.9
Private office/professional's home	5.5	6.9	3.7	4.0	2.9	5.5	5.5	6.3	5.9	4.4
Pharmacy	4.9	5.0	4.7	5.0	4.1	5.2	4.8	3.7	6.3	3.2
Abroad	0.5	0.1	1.0		3.2		0.5		0.4	0.7
Ambulance - treated only there	3.9	4.4	3.2	3.0	3.8	2.9	4.1	1.0	3.4	5.9
Other – specify	2.2	2.2	2.1	1.4	3.6	2.0	2.2	1.7	1.7	3.2
Don't know/Refuses to answer	0.1	0.1					0.1		0.1	
	100.0	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

QF25 "For this illness or other reason for using services, where did you have the consultation or received the care? Please tell me about all places where you had a consultation, including your home or a pharmacy if you received advice there in the order you used them, but only for treatments in the last 30 days." Base n= 1889 cases (consultations) based on 1802 individuals. Weighted total represents 625,630 consultations/incidences.

[32] Beneficiaries of a state programme (classified as beneficiaries if score up to 70000; not beneficiaries if score above 70000 or no score).

Table A.9 Person consulted

Main person consulted for a sickness during the last 30 days (based on F26)

	Total	Urban	Rural	pilot	other rural	beneficiaries [33]	non beneficiaries	0-14 yrs.	15-60 yrs.	60+ yrs.
District or family doctor	16.8	13.6	21.0	18.4	27.1	27.0	14.8	28.6	9.9	22.5
Specialist or hospital doctor	67.2	68.6	65.4	66.8	62.3	59.4	68.8	57.0	70.0	67.3
Nurse	0.6	0.5	0.9	1.1	0.4	0.9	0.6	0.9	0.6	0.6
Pharmacist	4.9	5.0	4.7	5.0	4.1	5.2	4.8	3.7	6.3	3.2
Dentist/dental technician	8.3	10.2	5.9	6.2	5.2	5.8	8.9	9.0	11.6	2.9
Lab/diagnostic technician	0.3	0.3	0.2	0.3	0.0	0.0	0.3	0.4	0.3	0.2
Alternative provider (e.g. chiropractor, sorcerer, acupuncture)	0.7	1.0	0.3	0.2	0.6	0.0	0.8	0.0	0.7	0.9
Other –specify	1.1	0.8	1.5	2.0	0.4	1.8	1.0	0.4	0.5	2.3
Don't know/Refuses to answer	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

[33] Beneficiaries of a state programme (classified as beneficiaries if score up to 70000; not beneficiaries if score above 70000 or no score).

Table A.10 User reports of satisfaction with services

Indicator	data source	Total	Urban	Rural	pilot region	other rural	beneficiaries [34]	non beneficiaries	0-14 yrs.	15-60 yrs.	60+ yrs.
Percentage of consultations where patients report that doctor/nurse completely explained reasons of treatment (as opposed to some or no explanation)	E17	81.0	81.4	80.5	80.9	79.8	81.1	81.0	86.5	81.2	78.2
Percentage of patients reporting that they spent more than 12 minutes with the main medical professional they saw	E19	91.2	91.1	91.3	90.2	93.3	93.7	90.7	84.8	91.1	94.1
Percentage of population reporting that the health care facility they last visited was clean or very clean.	E21	93.3	92.5	94.1	96.1	90.6	91.4	93.7	91.8	93.6	93.4
Percentage of patients reporting that they were involved as much as they wanted to be in decisions about their care and treatment	E20	83.1	85.3	81.0	83.2	77.2	82.2	83.3	70.4	88.2	81.1
Percentage of respondents reporting trust in services for nearest / usual clinic	D10	65.2	63.4	66.9	70.0	60.3	64.3	65.4	70.0	60.3	63.4

Table A.11 Distribution of population by type of sickness and reference period

	%
chronically ill and additional acute sickness during the last 30 days	6.9
chronically ill, but without additional acute sickness	30.2
total of chronically ill people	37.1
acute sickness during last 30 days but not chronically ill	8.7
not chronically ill, no acute sickness during last 30 days, but sick during the last 6 months	7.7
total	**53.5**

[34] Beneficiaries of a state programme (classified as beneficiaries if score up to 70000; not beneficiaries if score above 70000 or no score).

Annex B Additional tables: indicators by household consumption level

Table B.1 Sickness rates and conditions

Indicator	Data source	Total	poorest fifth	second	middle	fourth	richest fifth	poorest third	middle third	richest third
Percentage of total population with chronic disease	C2	37.1	34.1	37.0	37.3	38.0	38.6	35.1	37.8	38.1
Percentage of total population with acute sickness during last 30 days	C4+C5	15.6	14.3	14.9	16.7	15.0	17.5	14.9	15.3	16.8

Table B.2 Chronic diseases

	Total	poorest fifth	second	middle	fourth	richest fifth	poorest third	middle third	richest third
	Col %								
people with any chronic disease	37.1	34.1	37.0	37.3	38.0	38.6	35.1	37.8	38.1
people with two or more chronic diseases	11.0	9.7	10.9	10.8	12.2	12.0	10.3	11.5	11.6
% of occurrence									
Diabetes	3.5	2.9	3.7	2.2	4.8	4.3	3.0	3.3	4.5
Hypertension	19.1	17.2	21.7	18.0	18.8	19.3	19.5	18.8	18.9
Other heart of circulatory system	12.6	13.4	11.5	12.9	13.9	12.4	12.5	13.5	12.4
Rheumatism, arthritis	8.9	7.9	8.7	9.7	8.4	8.7	8.3	9.1	8.6
Goitre	3.4	3.8	2.9	4.2	2.8	3.2	3.2	4.0	2.9
Neurological disorder	5.1	7.6	5.2	5.1	4.7	3.1	6.3	4.8	4.1
Psycho-emotional disorders	1.1	1.6	1.1	1.3	1.2	0.5	1.2	1.4	0.8
Tuberculosis	0.4	0.5	0.6	0.5	0.4	0.2	0.5	0.6	0.3
Cancer	1.2	1.5	0.7	1.2	0.8	1.7	1.1	0.9	1.6
Asthma	2.1	2.6	2.1	2.2	1.8	1.7	2.4	2.0	1.8
Gallstones	1.7	1.2	2.4	1.3	1.5	2.3	1.8	1.6	2.0
Allergy	1.9	1.4	2.4	2.1	1.5	1.7	1.8	2.0	1.7
Ulcers	1.8	1.3	2.0	1.1	2.3	2.0	1.5	1.5	2.2
Other gastrointestinal	5.6	5.9	4.5	7.6	5.7	5.0	5.7	6.1	5.4
Other hepatic, biliary	4.9	3.7	3.2	5.3	4.9	7.0	3.7	4.5	6.3
Other respiratory	2.2	2.3	2.4	1.6	2.5	2.2	2.6	1.4	2.6
Other musculo-skeletal	6.9	7.0	6.2	7.5	7.2	6.7	6.8	7.6	6.4
Other gynaecological	2.7	2.7	3.1	1.8	2.7	3.0	3.0	1.8	3.2
Other eye chronic diseases	4.5	5.0	4.3	4.5	4.3	4.6	4.6	4.4	4.6
Other chronic diseases	10.5	10.6	11.3	10.2	9.5	10.2	10.6	10.6	9.8
Total	100.0	100.0	100.0	100.0	99.7	100.0	100.0	99.9	100.0

QC1 “Does name suffer from any chronic disease – that is one that has lasted or will last more than one year?” QC2 “What is it?” Base: 11.848 cases, weighted

Table B.3 Sickness during last 30 days

	Total	poorest fifth	second	middle	fourth	richest fifth	poorest third	middle third	richest third
people with one acute sickness last 30 days (weighted base 587059)	15.6	14.3	14.9	16.7	15.0	17.5	14.9	15.3	16.8
people with an additional acute sickness during the last 30 days	1.0	0.8	0.6	1.2	1.0	1.4	0.8	1.0	1.2
% occurrence of sickness									
Respiratory: pneumonia, influenza, bronchitis, pharyngities	42.0	48.0	38.6	39.2	45.5	39.6	45.1	39.0	41.9
Cardiovascular: chest pain, cardialgia, hypertension attacks	16.1	17.1	14.6	18.4	14.2	18.6	14.8	18.9	16.3
Abdominal: cramps, abdominal pain. nausea,	5.3	5.1	4.7	4.8	6.2	5.8	5.2	4.5	6.2
Neurological: attack of migraine, stroke, myositis, neuralgi	5.0	4.6	4.2	5.9	5.5	3.9	4.7	5.1	4.7
Road traffic accidents	0.3	0.0	0.4	0.5	0.0	0.2	0.2	0.3	0.1
Harm purposely inflicted by others	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.2	0.0
Other trauma/injury	3.7	5.0	4.3	3.4	3.2	3.5	5.0	3.0	3.5
Poisoning/intoxication	1.0	1.1	0.6	1.5	0.5	1.1	0.7	1.3	0.9
Skin problems: rash, other skin diseases (dermatitis)	1.6	2.9	1.3	1.4	0.9	2.0	1.9	1.5	1.6
Urogenital: cystitis, pyelonephritis, endometritis, prostate	5.8	4.3	7.3	5.5	6.9	4.9	5.6	6.3	5.5
Other infectious diseases: diphtheria, tetanus, hepatitis	0.9	0.7	1.4	1.7	0.3	0.2	1.2	1.1	0.3
Pregnancy related problems: abortion, delivery complications	0.5	0.5	0.3	0.4	1.1	0.2	0.3	0.9	0.3
Psychological/mental problems: acute neurosis, depression	1.5	1.1	0.8	3.1	0.7	1.4	1.1	2.1	1.3
DENTAL CARE (curative)	7.6	2.6	12.9	5.4	7.4	9.3	6.3	7.8	8.5
Other acute illness	8.5	7.1	8.3	9.0	7.5	9.2	7.9	8.0	8.9
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

QC3+4 “Has (name) been sick with (anything else) in the last 30 days?” Base: 11.848 cases, weighted to reflect population size

Table B.4 Utilisation, physical and financial access to health services

Indicator	data source	poorest fifth	second	middle	fourth	richest fifth	poorest third	middle third	richest third
Percentage of total population who reported to be sick in last 6 months[35]	C6,C12, C13	49.5	52.4	53.4	55.2	57.1	50.8	53.3	56.5
Percentage of total population who reported to be sick in last 6 months, who consulted healthcare provider	C6,C12, C13	55.2	57.2	60.0	61.5	63.5	55.6	59.6	63.2
Percentage of all first consultations that are done at PHC level	E	54.4	58.0	54.2	52.8	46.4	55.8	55.6	48.1
Percentage of total population access within 15 minutes by normal means of travel to a facility where they would normally see a doctor	D9	42.1	43.2	37.8	41.4	43.8	42.2	40.1	42.8
Percentage of total population access within 30 minutes by normal means of travel to a facility where they would normally see a doctor	D9	84.2	81.1	79.4	78.9	82.7	83.0	78.8	81.9
Percentage of patients who were able to obtain medications prescribed by doctor during last consultation	E10	79.1	83.8	85.2	83.0	90.1	80.3	84.3	88.1
Percentage of patients who were able to get needed lab tests at the same place they went for last consultation.	E13	86.6	82.8	82.4	84.0	85.2	86.2	81.4	85.2
Percentage of occurrences of sickness in last 30 days, where no medical care outside the house was taken up[36]	F22	41.6	39.7	42.7	38.7	36.3	41.6	40.3	37.5
Percentage of occurrences of sickness in last 30 days, where no medical care outside the house was taken up, because it was too expensive/not enough money available[37]	F23	21.5	18.7	24.2	15.2	11.3	20.9	21.4	12.3

[35] 37.1% of the total population report to be chronically ill, and an additional 8.7% report to have had an acute sickness during the last 30 days, without being chronically ill. Furthermore, 7.7% report to have been sick during the last 6 months, without being chronically ill nor with an acute sickness during the last 30 days. Hence, a total of 53.5% report to have been sick during the last 6 months, one way or the other. Out of those, 59.1% stated that they had consulted a health service provider. This is based on answers to questions C6, C12 and C13.

[36] Base: 37.1% cases who answered F22. This is every occurrence of an acute sickness and those occurrences of chronic illnesses where the person has, in the last 30 days, had an additional treatment or an additional consultation because of exacerbation of this illness (F11=1)

[37] Reasons for not taking any care outside the household; combination of primary and secondary reasons given. Denominator is total number of occurrences.

Indicator	data source	poorest fifth	second	middle	fourth	richest fifth	poorest third	middle third	richest third
Percentage of consultations where medicine was prescribed	E7	83.8	79.2	83.8	82.3	80.6	81.9	83.4	80.6
Percentage of consultations where medicine was prescribed but not purchased because it was too expensive (base: all consultations)	E11	16.4	11.6	11.6	12.2	7.3	15.1	11.9	8.5
Percentage of consultations where a lab test was prescribed	E12	40.3	42.2	43.4	42.1	48.8	41.6	42.2	46.5
Percentage of consultations where a lab test was prescribed but not done because it was too expensive (base: all consultations)	E16	6.0	4.6	3.8	4.0	3.6	5.5	4.0	3.6
Percentage of population who were reported to need hospitalisation in the last year but were not hospitalised	H1	21.2	16.7	13.1	18.5	11.3	19.0	15.3	14.2
Percentage of population who were reported to need hospitalisation in the last year but were not hospitalised because it was too expensive/they did not have enough money (base: total)	H5	18.8	15.1	11.4	16.1	9.1	17.3	13.3	11.7
Percentage of respondents who expect to pay for a consultation with a doctor at the nearest facility	D12	58.1	62.8	60.7	58.0	54.0	61.0	60.9	54.3
Percentage of population covered by any health insurance (government, private or employer)	B10	18.5	14.8	12.5	14.4	16.9	16.9	13.2	11.2
Percentage of population covered by state health insurance	B10	17.8	13.9	11.5	13.1	5.4	16.4	11.9	8.8
Percentage of population covered by other health insurance (mainly through employer)	B10	0.2	0.1	0.6	0.4	0.6	0.2	0.6	0.4
Percentage of population covered by private health insurance	B10	0.4	0.9	0.4	0.8	2.6	0.4	0.7	2.1
Overall number of consultations per capita per annum	F25	1.69	1.88	1.97	2.17	2.56	1.82	1.93	2.41
Utilisation of Village Ambulatory facilities per capita per annum	F25	0.22	0.16	0.16	0.20	0.15	0.19	0.18	0.16

Table B.5 Self-reported health status and risk factors

Indicator	data source	poorest fifth	second	middle	fourth	richest fifth	poorest third	middle third	richest third
health status reported to be excellent/very good/good during last 4 weeks (rather than fair/poor/very poor)	B7	50.9	49.8	51.0	50.9	52.0	50.4	50.5	51.8
Percentage of adults aged 30 and over for whom blood pressure measured during last 12 months.	B8	32.9	36.0	38.1	42.1	45.7	33.9	38.5	44.5
Percentage of population aged 12 and over that have smoked in the last month	B9	21.3	23.0	20.4	19.6	21.5	21.8	20.8	20.9

Table B.6 Beneficiaries of state insurance programme

Indicator	data source	poorest fifth	second	middle	fourth	richest fifth	poorest third	middle third	richest third
beneficiaries of state insurance (score up to 70000)	B7	20.3	17.1	12.1	12.7	6.5	19.6	12.7	9.0
beneficiaries consulting health care provider	C6,C12, C13	58.7	54.8	57.7	60.6	66.3			
non-beneficiaries consulting health care provider	C6,C12, C13	54.1	57.7	60.4	61.7	63.2			

B.2 Quality of services

Table B.7 Place of treatment

Place where consultation or care was received for a sickness during the last 30 days

	poorest fifth	second	middle	fourth	richest fifth	poorest third	middle third	richest third
Home visit	9.6	10.5	13.3	8.9	6.2	9.0	13.9	6.3
Village Ambulaory Centre	12.8	8.8	8.0	9.1	5.8	10.7	9.1	6.7
Polyclinic	24.3	28.9	24.1	25.0	18.8	27.9	22.7	21.9
Dispensary	0.0	0.4	1.0	0.0	0.5	0.0	0.8	0.3
Women's consultation clinic	1.4	2.8	1.7	1.7	2.9	2.5	1.6	2.3
hospital (as an outpatient)	25.7	19.6	27.7	24.6	23.4	22.9	25.7	23.9
hospital (as an inpatient)	3.0	5.2	2.6	3.9	3.8	3.8	3.1	4.1
Dental clinic	3.4	12.9	5.6	8.3	10.0	7.1	7.8	9.4
Diagnostic centre	1.2	0.0	1.3	1.7	7.3	0.7	1.5	5.0
Private office/professional's home	6.2	4.8	4.2	3.5	7.8	5.3	4.3	6.3
Pharmacy	6.5	1.1	5.5	4.9	6.4	4.0	4.8	5.9
Abroad	0.0	1.1	0.7	0.2	0.0	0.7	0.5	0.1
Ambulance - treated only there	5.0	2.5	3.5	4.8	3.5	4.1	3.0	4.4
Other - specify	0.8	1.1	0.9	3.2	3.5	1.2	1.3	3.3
Don’t know/Refuses to answer	0.0	0.4	0.0	0.0	0.0	0.2	0.0	0.0
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

QF25 “For this illness or other reason for using services, where did you have the consultation or received the care? Please tell me about all places where you had a consultation, including your home or a pharmacy if you received advice there in the order you used them, but only for treatments in the last 30 days.” Base n= 1889 cases (consultations) based on 1802 individuals. Weighted total represents 625,630 consultations/incidences.

Table B.8 Person consulted

Main person consulted for a sickness during the last 30 days

	Total	poorest fifth	second	middle	fourth	richest fifth	poorest third	middle third	richest third
	Col %								
District or family doctor	17.9	18.0	21.2	20.8	17.6	9.5	20.5	20.2	11.6
Specialist or hospital doctor	69.6	69.5	62.5	64.4	67.8	69.9	66.1	64.1	70.0
Nurse	0.9	0.5	0.8	1.2	0.5	0.5	0.4	1.1	0.6
Pharmacist	4.5	6.5	1.1	5.5	4.9	6.4	4.0	4.8	5.9
Dentist/dental technician	5.2	3.2	13.0	6.2	7.8	10.4	7.3	7.6	9.7
Lab/diagnostic technician	0.3	0.4	0.0	1.0	0.0	0.1	0.2	0.6	0.1
Alternative provider (e.g. chiropractor, sorcerer, acupuncture)	0.7	0.8	0.0	0.0	0.0	2.2	0.5	0.0	1.4
Other – specify	0.9	1.1	1.4	0.8	1.4	1.0	0.9	1.6	0.9
Don't know/Refuses to answer	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.0
	100.0	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Annex C Additional tables: indicators by age and sex

C.1 Illness and use of health services

Table C.1 Sickness rates and conditions

Indicator	data source	Total	male	female	male 0-14 yrs	male 15-60 yrs	male 60+ yrs	female 0-14 yrs	female 15-60 yrs	female 60+ yrs
percentage of weighted sample		100.0	47.2%	52.8%	9.2%	29.4%	8.7%	8.2%	32%	12.6%
Percentage of total population with chronic disease	C2	37.1	31.4	42.2	9.6	26.7	70.2	8.3	35.9	80.5
Percentage of total population with acute sickness during last 30 days	C4+C5	15.6	13.7	17.4	16.2	11.2	19.4	14.3	16.8	21.1

Table C.2 Chronic diseases

Col %	Total	male	female	male 0-14 yrs	male 15-60 yrs	male 60+ yrs	female 0-14 yrs	female 15-60 yrs	female 60+ yrs
people with any chronic disease	37.1	31.4	42.2	9.6	26.7	70.2	8.3	35.9	80.5
people with two or more chronic diseases	11.0	7.5	14.2	0.3	4.7	24.8	0.7	9.1	35.9
% of occurrence									
Diabetes	3.5	3.2	3.7	-	3.6	3.2	1.8	2.7	4.8
Hypertension	19.1	12.7	23.1	-	9.5	17.8	-	15.3	31.9
Other heart of circulatory system	12.6	13.3	12.2	4.0	10.9	17.0	3.3	10.6	14.3
Rheumatism, arthritis	8.9	8.0	9.4	0.3	6.9	10.1	2.5	8.2	10.8
Goitre	3.4	1.1	4.8	5.6	1.4	0.3	7.6	8.5	1.0
Neurological disorder	5.1	7.0	3.8	15.4	9.1	3.8	9.9	5.2	2.2
Psycho-emotional disorders	1.1	1.6	0.9	2.9	2.2	0.7	0.7	1.2	0.5
Tuberculosis	0.4	1.0	0.1	0.8	1.2	0.7	-	0.2	0.0
Cancer	1.2	1.3	1.1	1.2	0.8	1.8	-	0.9	1.4
Asthma	2.1	2.8	1.7	9.8	2.0	2.8	1.9	1.9	1.5
Gallstones	1.7	0.8	2.2	-	0.9	0.8	-	2.1	2.4
Allergy	1.9	2.0	1.7	7.7	2.6	0.8	6.7	2.9	0.3
Ulcers	1.8	2.9	1.1	-	4.4	1.5	2.4	1.4	0.8
Other gastrointestinal	5.6	7.8	4.3	8.6	9.1	6.3	9.4	4.3	4.1
Other hepatic, biliary	4.9	5.3	4.6	-	7.1	3.9	-	5.7	3.7
Other respiratory	2.2	3.2	1.6	10.9	3.2	2.2	12.7	1.8	0.9
Other musculo-skeletal	6.9	6.2	7.3	2.3	6.5	6.4	8.2	6.9	7.6
Other gynaecological	2.7	-	4.3	-	-	-	-	8.1	0.7
Other eye chronic diseases	4.5	5.7	3.8	8.2	3.7	7.6	9.9	2.0	5.3
Other chronic diseases	10.5	14.0	8.3	22.2	14.7	12.4	22.8	10.0	5.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
unweighted base of persons with one or more chronic conditions	n=4446	n=1784	n=2662	n=102	n=946	n=736	n=80	n=1359	n=1223
Percentage of all occurrences of chronic diseases across age/sex segments	100%	38.1	61.8	1.9	19.1	17.1	1.5	29.9	30.4

QC1 “Does name suffer from any chronic disease – that is one that has lasted or will last more than one year?” QC2 “What is it?”Base: 11.848 cases, weighted

Table C.3 Acute sickness during last 30 days

	Total	Male	Female	male 0-14 yrs	male 15-60 yrs	male 60+ yrs	female 0-14 yrs	female 15-60 yrs	female 60+ yrs
	Col %	Col%	Col%	Col %	Col %	Col %	Col %	Col %	Col %
people with one acute sickness last 30 days	15.6	13.7	17.4	16.2	11.2	19.4	14.3	16.8	21.1
people with an additional acute sickness during the last 30 days	1.0	1.0	1.1	0.7	0.8	1.9	0.4	1.1	1.4
% occurrence of sickness									
Respiratory: pneumonia, influenza, bronchitis, pharyngities	42.0	43.4	41.0	67.5	36.5	36.5	71.4	38.5	32.9
Cardiovascular: chest pain, cardialgia, hypertension attacks	16.1	14.7	17.2	0.4	17.3	21.5	0.0	15.5	28.0
Abdominal: cramps, abdominal pain. nausea,	5.3	4.5	5.8	5.1	4.7	3.7	2.7	6.2	6.4
Neurological: attack of migraine, stroke, myositis, neuralgi	5.0	3.7	6.0	0.7	4.2	5.3	0.0	7.0	6.6
Road traffic accidents	0.3	0.6	0.0	0.0	1.1	0.0	0.0	0.1	0.0
Harm purposely inflicted by others	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Other trauma/injury	3.7	4.5	3.2	2.8	5.4	4.2	1.9	2.1	5.7
Poisoning/intoxication	1.0	1.3	0.8	1.5	1.4	1.0	2.2	0.4	0.8
Skin problems: rash, other skin diseases (dermatitis)	1.6	1.8	1.4	2.4	1.7	1.5	2.7	1.1	1.6
Urogenital: cystitis, pyelonephritis, endometritis, prostati	5.8	6.9	5.1	0.6	6.9	11.9	0.5	5.8	5.6
Other infectious diseases: diphtheria, tetanus, hepatitis	0.9	1.5	0.4	4.8	0.9	0.0	3.6	0.0	0.0
Pregnancy related problems: abortion, delivery complications	0.5	0.0	0.9	0.0	0.1	0.0	0.0	1.5	0.0
Psychological/mental problems: acute neurosis, depression	1.5	1.9	1.3	0.0	3.2	0.9	0.0	1.8	0.7
DENTAL CARE (curative)	7.6	7.0	8.0	8.5	8.7	2.6	7.7	10.5	3.3
Other acute illness	8.5	8.1	8.8	5.8	7.8	10.8	7.3	9.4	8.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Unweighted base of persons with one or more acute sickness	n=1786	n=754	n=1032	n=170	n=389	n=195	n=127	n=594	n=311

QC3+4 "Has (name) been sick with (anything else) in the last 30 days?" Base: 11.848 cases, weighted to reflect population size

Table C.4 Utilisation of health services

Indicator	data source	Total	male	female	male 0-14 yrs	male 15-60 yrs	male 60+ yrs	female 0-14 yrs	female 15-60 yrs	female 60+ yrs
Percentage of total population who reported to be sick in last 6 months and consulted healthcare provider [38]	C6,C12, C13	59.1	59.5	58.8	66.6	55.8	62.8	66.3	57.7	58.3
Percentage of first consultations at PHC level	E	52.7	50.6	54.3	63.4	45.7	50.9	61.2	49.6	59.4
Overall number of consultations per capita per annum	F25	2.01	1.69	2.29	1.77	1.28	3.02	1.55	2.11	3.23
Utilisation of Village Ambulatory facilities per capita per annum	F25	0.17	0.14	0.21	0.08	0.08	0.38	0.11	0.15	0.41

[38] 37.1% of the total population report to be chronically ill, and an additional 8.7% report to have had an acute sickness during the last 30 days, without being chronically ill. Furthermore, 7.7% report to have been sick during the last 6 months, without being chronically ill nor with an acute sickness during the last 30 days. Hence, a total of 53.5% report to have been sick during the last 6 months, one way or the other. Out of those, 59.1% stated that they had consulted a health service provider. This is based on answers to questions C6, C12 and C13.

Table C.5 Annualised per capita expenditure by age-sex groups (Gel)

Age-sex group	For Outpatient Care		Expenditure for self-treatment	Expenditure for chronic recurrent illness
	Fees paid to provider of outpatient care*	Cost of medicines purchased elsewhere		
male 0-14 yrs	21.7	33.4	8.0	16.5
male 15-60 yrs	50.9	35.9	7.4	36.5
male 60+ yrs	68.0	74.5	23.4	123.5
female 0-14 yrs	44.6	28.6	7.4	10.2
female 15-60 yrs	75.8	48.9	12.7	46.1
female 60+ yrs	61.3	94.1	17.8	141.9

Notes: The size of the age group was used as a denominator to derive per-capita estimates. There are too few reported inpatient cases with linked age-sex data, so reliable estimates for per-capita hospital expenditure by age-sex group cannot be derived

* These fees include fees to provider, for diagnostic services and for any medicine provided by the provider/facility, but exclude fees paid for medicines that were purchased elsewhere

Annex D Comparison of HUES and other data sources

D.1 Comparison between HUES and NCDC data

It is useful to compare information collected through household surveys i.e. the HUES, with information compiled through the routine medical statistics system and published by the National Centre for Disease Control and Medical Statistics (NCDC). Since the sources are quite different, the comparisons are not straightforward and need to be approached with care. It is nevertheless a useful exercise. Information on both the level of service use and the distribution of complaints can be compared.

In the survey, information was collected on all consultations undertaken in the previous 30 days. The weighted numbers of consultations give an estimate of totals in the population, which can also be expressed per 1,000 persons per year and estimated annual totals (Table D.1). Adjusting for a population of 4.3 million gives significantly higher estimated totals, as shown in the final column. However, per capita rates will not be greatly affected by the issue of total population size.

Table D.1 Estimated number of consultations by place (HUES)

Place of consultation	Weighted number, 30 days	Share (%)	Rate per 1000 pop per year	Annual totals	Adjusted annual totals
Home visit	57,897	9.3	185.8	694,759	816,442
Village Ambulatory Centre	54,393	8.7	174.5	652,713	767,032
Polyclinic	150,068	24.0	481.5	1,800,811	2,116,213
Dispensary	2,257	0.4	7.2	27,086	31,830
Women's consultation clinic	13,942	2.2	44.7	167,305	196,608
Hospital (as an outpatient)	151,147	24.2	485.0	1,813,766	2,131,437
Hospital (as an inpatient)	23,845	3.8	76.5	286,146	336,263
Dental clinic	52,359	8.4	168.0	628,304	738,348
Diagnostic centre	13,593	2.2	43.6	163,116	191,685
Private office/professional's home	34,377	5.5	110.3	412,521	484,772
Pharmacy	30,590	4.9	98.2	367,076	431,367
Abroad	2,858	0.5	9.2	34,300	40,308
Ambulance - treated only there	24,287	3.9	77.9	291,449	342,495
Other – specify	13,592	2.2	43.6	163,109	191,676
Don't know/Refuses to answer	425	0.1			
Total	625,630	100.0	2,007.5	7,507,562	8,822,469

Note: rate per year ignores any seasonal effects.

These figures can be compared with the number and per capita rates reported by NCDC for 2006, presented in Table D.2 . Although there is broad comparability, some important differences can be observed. It can be seen that the total number of contacts reported in the HUES is lower than the NCDC totals. The total outpatient contacts reported by NCDC is 2.1 per person per year. While the overall level of contacts reported in the HUES is similar, at 2.01, this includes a number of contacts that would not be expected to be included in the NCDC outpatient figures. Utilisation of dental clinics is reported more extensively in the HUES, which is probably because not all dental facilities, which are mainly under private ownership, submit annual statistical reports to NCDC. There are also very large differences in the reported use of rural ambulatory facilities which seem difficult to explain.

The inpatient admission figures are broadly similar between the two sources using recall data on the last 30 days. When information on inpatient admissions in the last 12 months in the HUES is analysed, hospital utilisation rates appear to be lower at 43.1 per thousand. It is likely that the NCDC figures are more accurate in this area.

There are a number of reasons why the two sources would not be expected to be identical, including referring to different time periods, sampling error and seasonal effects in the HUES. Nevertheless, any large discrepancies raise questions about their cause.

Table D.2 Number of discharges and consultations, NCDC, 2006

CDC total numbers	Total Number[39]	Rate per 1000 pop per year
Hospital discharges	276,702	63
Outpatient consultations:		
'Encounters at polyclinics and ambulatories'	8,403,132	1,912
Of which, dentist clinics	321,438	73
Of which, consultations at ambulatories	2,084,073	474
Home visits	681,940	155
Visits to midwife posts	171,687	39
Total outpatients	9,256,759	2,106

Note: excludes ambulance calls.

Summary rates are compared in Table D.3. These figures assume that all hospital outpatient consultations would be recorded as 'polyclinics' in the NCDC statistics. Nevertheless the difference in outpatient figures remains noteworthy. Further analysis to establish the reason for these differences is required.

Table D.3 Comparison of annual utilisation rates per 1,000 population, HUES and NCDC

Measure	**HUES**	**NCDC**
All hospitalizations (12 month recall)	43.1	63.1
All hospitalizations (30 day recall)	76.5	--
Utilization of outpatient services	1,657	2,106
Consultations at village ambulatory facilities	175	474
Dental care	168.0	73.1

Note: outpatient services for the HUES figure include: home visit, ambulatory, women's clinic, dispensary, hospital outpatient, dental clinic, professional's office/home. It excludes ambulance.

The conditions reported by the two sources are given in the following tables. Again there are a number of reasons why these figures would be expected to be different. In the HUES, they are self-reported and while they may sometimes be based on diagnoses given by doctors to the respondents, in other cases they may not be. They also depended, sometimes, on interviewers interpreting and classifying what the respondent reported. They cannot be considered to be of equivalent quality to statistics on medical conditions reported through the health system. They are nevertheless informative, particularly since they include conditions where the individual may not have had any contact with the health services.

[39] NCDC Medical Statistical Yearbook 2006, Tbilisi, Georgia.

The classification of complaints recorded through routine medical statistics will be much more accurate. On the other hand, only a fraction of the total contacts reported appear to be analysed by conditions (around 1.7 million out of a total of at least 9.5 million contacts).

The distribution of conditions in the HUES given below is based on a tabulation of all conditions that occurred in the preceding 30 days, both acute and chronic, and where the individual reported consulting at a health facility or other formal provider. This is probably the closest approximation to the NCDC figures.

Note that there are also substantial differences between the two classification systems. The HUES categories have been condensed and combined where possible to try to give more comparable groups. Nevertheless differences remain.

Despite this, there are broad similarities in the two distributions. Cardiovascular and respiratory diseases dominate both.

Table D.4 Distribution of conditions, last 30 days (HUES)

Condition	Weighted number of occurrences	Share (%)
Diabetes	8,519	2
Cardiovascular	104,993	25
Respiratory inc asthma	99,817	24
Rheumatism, arthritis, other musculo-skeletal	20,750	5
Goitre	6,436	2
Neurological disorder	17,107	4
Psycho-emotional disorders	2,316	1
Cancer	3,021	1
Gastrointestinal inc ulcers, and 'abdominal'	22,400	5
Hepatic, biliary, gallstones	11,201	3
Allergy	4,055	1
Urogenital, gynaecological, pregnancy related	31,089	7
Trauma and poisoning	20,912	5
Skin problems: rash, other skin diseases (dermatitis)	5,473	1
Other infectious, inc TB	6,638	2
Eye chronic	8,903	2
Dental problems	5,240	1
Other	43,744	10
Total	422,613	100

Note: excludes use of preventive services and consultations with non-formal providers.

Table D.5 Distribution of prevalent cases reported by CDC, 2006

	Total number of cases	Share	Prevalence rate per 100,000 population
Certain infectious and parasitic diseases	67,018	4.0	1523.8
Neoplasms	46,365	2.8	1054.2
Endocrine, nutritional and metabolic diseases	160,443	9.6	3648.1
Diseases of the blood and blood forming organs	17,048	1.0	387.6
Mental and behavioral disorders	95,800	5.7	2178.3
Diseases of the nervous system	92,154	5.5	2095.4
Diseases of the circulatory system	339,562	20.3	7720.8
Diseases of the respiratory system	381,538	22.8	8675.3
Diseases of the digestive system	141,047	8.4	3207.1
Diseases of the genitourinary system	79,722	4.8	1812.7
Pregnancy, childbirths and the puerperium	11,382	0.7	958.5
Diseases of the skin and subcutaneous tissue	38,687	2.3	879.6
Diseases of the musculoskeletal system and connective tissue	42,304	2.5	961.9
Congenital malformations, deformations and chromosomal abnormalities	5,774	0.3	131.3
Certain conditions originating in the perinatal period	2,684	0.2	---
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	6,165	0.4	140.2
Injury, poisoning and certain other consequences of external causes	32,892	2.0	747.9
Ophthalmologic disorders	83,434	5.0	1897.1
Hearing problems/disorders	26,352	1.6	599.2
Total	**1,670,371**	**100.0**	**37,980.20**

D.2 Comparison between HUES and earlier survey results

The last comprehensive analysis of sickness and health service utilisation is reported in the 'Georgia: Review of the Health Sector' (World Bank, 2004). It is based on an analysis of the IHS data from 2001, in particular the Shinda 09 questionnaire. It presents an analysis by income (consumption) quintiles. Information from that source and the HUES are compared in this section, since there was a strong interest in whether the HUES results suggested that there had been any improvements in equity (by income) in the sector.

However, these comparisons must be made with great care. The two surveys are quite different and it appears (below) that the results are often not comparable. They are presented for

information but should not be considered definitive. More comparable findings would be provided by analysing the 2006 IHS Shinda 09, since this information will be more comparable. Such an analysis was beyond the scope of this study, however.

A comparison of the levels of reported chronic illness suggests that it is underreported in the 2001 IHS, with 12% reporting it compared with 37% in the HUES. Accordingly, the differences between the 2001 IHS and the HUES are substantial. The proportion who seek care are more similar, however, and a comparison between the two suggests that most of the apparent increase in care utilisation has benefited the poorest groups. The comparison of reasons given for not seeking care provides some support to this, with fewer individual of all income levels quoting lack of money as a reason for not seeking care.

Table D.6 Incidence and treatment of chronic illnesses

Quintile	IHS 2001		HUES	
	% of pop reporting sick	% of sick seeking care	% of pop reporting sick	% of sick seeking care
Poorest	12.2	42.9	34.1	52.3
2	11.8	49.5	37.0	55.4
3	11.8	51.1	37.3	56.5
4	12.5	61.1	38.0	59.7
Richest	13.3	61.2	38.6	64.0
Total	12.3	*53.3*	37.0	57.7

Table D.7 Reason for not seeking care when chronically ill, 2001 IHS (WB)

Quintiles	Money shortage	Treatment not available	Disease not serious enough	Don't need for the moment	Other	Total
Poorest	75.5	4.5	2.0	15.9	2.2	100
Second	72.4	4.4	4.6	15.8	2.8	100
Middle	76.2	3.4	2.9	16.6	0.9	100
Fourth	70.0	3.5	4.2	19.6	2.8	100
Richest	68.2	4.8	4.8	19.9	2.4	100
Total	**72.8**	**4.1**	**3.6**	**17.3**	**2.2**	**100**

Table D.8 HUES: reasons for not taking up care (chronically ill only)

	Too expensive/ not enough money	Thought not serious	Got better soon after being sick	Other	Total
Poorest fifth	56.3	15.4	11.6	3.5	100.0
2	59.0	5.9	12.7	5.5	100.0
3	63.0	8.4	8.0	3.7	100.0
4	48.4	13.5	9.0	3.9	100.0
Richest fifth	35.6	14.7	9.2	3.6	100.0
	52.9	**11.3**	**9.9**	**4.0**	**100.0**

A comparison of reported acute sickness rates shows, again, some differences in the level of sickness reported between the two surveys which are likely to be due to underreporting in the HIS because of differences in the questionnaires and the focus of the interviews. There are also very large differences in the proportion of sick individuals reporting using services. These differences are too large to represent real change and must be due to differences in methods; in addition, the level of use in 2001 seems low given the use of services reported for chronic illnesses in the same survey (above). Nevertheless, neither survey shows large differences in the use of services by quintile, so this comparison suggests that service utilisation has remained equitable. The proportion benefiting from free services appears to have increased.

Table D.9 Comparison of acute sickness rates

	2001 IHS (WB)			HUES		
Quintile	% of pop reporting sick in last 3 months	% of sick seeking outpatient care	% paying zero	HUES % sick during last 30 days	Consulting healthcare providers (of those sick in last 30 days)	% paying zero
Poorest	9.6	24.4	15.7	14.3	63.4	21.3
2	12.3	24.0	7.1	14.9	63.3	13.0
3	12.4	24.2	14.4	16.7	66.0	20.2
4	14.0	19.6	7.3	15.0	62.7	21.3
Richest	17.5	26.3	5.5	17.5	63.5	19.2
Total	13.1	23.8	9.4	15.7	63.8	19.0

Note: the figures in this table are different from in the main text because this refers to acute sicknesses only

The two comparisons therefore appear to tell differing stories. It reinforces that an analysis of the 2006 IHS, preferably combined with a re-analysis of the 2001 IHS to ensure comparability, would be the most appropriate way to assess trends in utilisation and equity to date.

D.3 Integrated Household Survey instruments

A number of areas where the HIS could be improved were identified during the development of the HUES questionnaire and the analysis of the HUES and IHS data. They include the following: revising the structure and classification of the information that is collected on health expenditure;

improving the questionnaire format on illness and the use of health services, and analysing the data from it; reducing the duplication of information collected; adjusting estimates of health expenditure for under-reporting; and improving the sampling process (see Annex E).

The Dept. of Statistics is currently revising the IHS, both questionnaire and sampling, and this provides a good opportunity to introduce these improvements. Suggested amendments to the IHS questionnaires will be shared separately with the Department of Statistics. There will still be a need for separate, specialist health sector surveys periodically, since the IHS is a broad, multi-sector survey and cannot be expected to meet all of the information needs of the health sector.

Annex E Outline of sampling and weights

This annex outlines the sampling strategy used by the HUES. Since it draws on the sampling strategy used by the Integrated Household Survey (IHS) and since the samples partly overlap, it also outlines the sampling of the IHS. The weights are also defined.

Sampling in the Integrated Household Survey

The Integrated Household Survey has a nationally representative sample of around 3,300 households in a pseudo-panel design[40]. These households are interviewed a total of five times over the period of their involvement in the survey, which is one year. After one year of inclusion, which thereby captures a full year of income-expenditure data, the household leaves the sample and a new household is included. One twelfth of the sampled households leave the sample each month so full panel rotation is achieved over one year.

The sample was selected using a two-stage stratified procedure, with census enumeration areas (EAs) as the primary sampling unit and households as the second. The sample is stratified into a total of 49 strata, based on a classification of settlement types. This classifies settlements by urban / rural, distinguishing three categories: cities, towns and villages. It also distinguishes highland and lowland settlements. Region also acts as a stratifying variable, although some smaller regions are combined with larger ones.

There are now 300 EAs included, which were selected with probability proportional to size (PPS). Households are selected within the sampled EA using systematic sampling from a list of households/dwellings there. Each EA is allocated to one of three panels, so that households there are interviewed during one of the three months of each quarter. There is a resulting 147 stratum*panel combinations into which PSUs are allocated.

The sampling was reviewed in 2001/2002 to increase the efficiency of the sample and investigate any observations with extreme weights; the revised sample (which raised the number of EAs to the current 300) is now fully implemented.

There are a number of concerns about the IHS sampling, which are outlined at the end of this section.

Sampling for the HUES

The terms of reference give the following objectives for the survey:

- Estimate household health expenditure to adjust the findings of quarterly Integrated Household Survey (IHS41) that is implemented by the State Department of Statistics (SDS) since 1996.
- Obtain baseline and impact indicators to monitor and evaluate reforms implemented in PHC (in pilot regions) and in Health Care Financing;
- Provide Government of Georgia with critical information about population's self-reported health status, health care utilization and patients' satisfaction, which will help to formulate or adjust state policies.

[40] The sample excludes some currently inaccessible autonomous regions.

To ensure that national estimates are produced and that estimates of sufficient precision can be produced for the pilot regions, it was useful to divide the household sample into two components: one designed to give national estimates and another, additional element in the pilot regions that will ensure sufficient size there. The overall survey design was based around the Household Budget Survey. Specifically, for the main (national) sample, the sample consists of households that have left the IHS sample in the 15 months. This had the benefit of ensuring that complete consumption-expenditure information was available for all these households, so that their socioeconomic status was known without having to collect all of that data. The HUES could then focus on collecting health utilisation and expenditure data in more depth. This provides national estimates of expenditure and a baseline for national primary care reform.

An additional sub-sample was also selected in the pilot districts. All sampled households in these districts (in the core sample and the additional sample) were analysed together to provide a baseline for PHC reform in these regions. It was agreed that the 'pilot population' for the baseline pilot measures should be defined as the entire rural population in the regions of Imereti, Adjara, Shida Kartli and Kakheti. During the analysis, it was agreed that Kvemo Kartil would also be considered as part of the pilot population. The desired sample sizes for both samples were determined by calculating the expected confidence intervals around key estimates of utilisation and expenditure and around estimates of change (see OPM mission report 1).

Information on the actual number of households interviewed in the IHS in 2006 showed significant levels of non-response. Some 83% of the original sample was interviewed, being 89% in rural areas and 75% in urban areas. The HUES sample needed to allow for the possibility of similar problems. To ensure sufficient households for the sample, the HUES sample frame was constituted by all households that left the IHS in 2006 plus the first quarter of leavers in 2007 (ie one full calendar year, plus an additional quarter). Having completed a Shinda 04 in a quarter meant that the household was considered to be part of the sample frame. It included, necessarily, households in PSUs that were still in the survey and those in PSUs that had since left the survey. For urban areas and the rural areas of pilot regions, all of the households in this frame were selected (ie 100% sample). For the remaining rural regions, households were sampled with a sampling fraction of 0.7, using the SPSS systematic random sampling function on a list sorted by stratum and PSU.

An additional sample was also drawn, sampling new PSUs for the pilot population. An additional 270 households in 18 new PSUs were selected. These PSUs were sampled from a list of PSUs that had already been sampled for the IHS for future fieldwork, when existing PSUs are exhausted. This was done because it was not possible to locate the full sample frame for the larger, combined PSUs that were created from the census enumeration areas in revising the IHS sample. Only an earlier census enumeration area listing was available, which was known to have some errors. PSUs currently in the IHS were removed from this list through a matching process. Since the sample of future PSUs had been selected with probability proportional to size, the sub-sample needed for the HUES was selected with simple random sampling. SDS then undertook a household listing exercise in these PSUs prior to sampling 15 households from each.

The resulting sample is given in Table E.1. This shows the distribution by region of the total 3,395 households that were sampled, including the distribution of the 270 non-IHS households that were sampled in the pilot regions.

Table E.1 Distribution of sample by region and urban/rural location

Region	Total sample, households				Of which, Additional sample	
	Urban	Rural	Total	%	Rural HHs	PSUs
Ajara	107	203	310	9	45	3
Shida Kartli	65	281	346	10	75	5
Imereti	199	387	586	17	75	5
Kakheti	58	471	529	16	75	5
Kvemo Kartli	115	205	320	9		
Samtskhe-Javakheti	50	111	161	5		
Guria	37	111	148	4		
Samegrelo	83	163	246	7		
Mtskheta-Mtianeti	27	99	126	4		
Tbilisi	572	0	572	17		
RL & KS	17	33	50	1		
Georgia	1,330	2,065	3,395	100	270	18

Note: Households that are classified as in Imereti region for IHS analysis purposes, but are in reality in another administrative region, have been removed to separate lines in this table (Mtskheta-Mtianeti and RL & KS). Kvemo Kartli was also considered as a pilot region in the analysis, although no additional households were sampled there.

Households that had been selected for the IHS, but refused, were not included in the sample frame.

Weights for the IHS and for the HUES

The weights for the HUES were calculated in the same way as the IHS. This makes use of information to which SDS has ready access and provides a consistent approach between the two surveys. The weights in HIS can be expressed as follows: [42]

$$W_{ijkl} = \left(\frac{H_{ij}}{n_{ij}}\right) \cdot \frac{\sum_{k,l} H^*_{ijkl}}{\sum_{k,l} H_{ijkl}} \cdot \frac{\sum_{l} (n_{ijkl} - i_{ijkl})}{\sum_{l} (n_{ijkl} - i_{ijkl} - u_{ijkl})}$$

Where:

W_{ijkl} = final weight for a household in PSU *l* and panel *k* of the *j-th* stratum of the i-th region

n_{ij} = initial number of households sampled in the *j-th* stratum of the *i-th* region

H_{ij} = number of households listed in the pre-Census estimates the *j-th* stratum of the *i-th* region

[42] A document kindly provided by the expert who worked on the IHS sampling (Mr Marmuka) outlines the design of the sample and the calculation of the weights in the IHS. DS staff also helped clarify a number of details.

H_{ijkl} = number of households listed in the pre-Census estimates in PSU *l* and panel *k* of the *j-th* stratum of the *i-th* region

H^*_{ijkl} = revised number of households in PSU *l* and panel *k* of the *j-th* stratum of the *i-th* region

n_{ijkl} = initial number of households sampled PSU *l* and panel *k* of the *j-th* stratum of the *i-th* region

i_{ijkl} = number of closed dwelling in PSU *l* and panel *k* and of the *j-th* stratum of the *i-th* region

u_{ijkl} = number of non-responses (eligible sampled households not interviewed) in PSU *l* and panel *k* of the *j-th* stratum of the *i-th* region

Note that this uses an adjusted (inverse) stratum-level sampling fraction as a basis for the weights, rather than a probability specific to each household. There are two adjustments, given respectively by the second and third terms of the above expression. The first is a stratum-level adjustment, based on the ratio of the sum of the number of households in the pre-Census estimates used for the sample frame to the number found in the IHS listing process. The second is an adjustment for non-response. This is in fact a stratum*panel-level adjustment[43].

Concerns about the IHS sampling and weights

During the development of the HUES sample, a number of concerns were identified about the IHS sampling, some of which are quite serious. These are of relevance to the HUES and are also of wider importance to the IHS. They are as follows:

1. Household sample frame

There are a number of serious concerns about the household sample frame and resulting estimates of PSU size.

i. The initial estimates of number of households used for the sample frame is actually the pre-Census estimates of number of households, and the household listing that is updated in also a pre-Census (administrative) listing, because the actual Census data has not been (and cannot be) linked to the enumeration area identifiers. This makes the initial estimates likely to be quite inaccurate.

ii. The PSUs (enumeration areas) are defined as 'address-based' rather than geographically and there are no useable maps defining geographical boundaries for enumeration areas. The updating of the household listing cannot easily, and generally does not, add newly built dwellings as a result. This is less of problem in rural areas, where whole villages may sometimes constitute EAs and new dwellings might be captured. But it is a serious problem in urban areas, where new dwellings will generally be missed; in addition, it is in urban areas where most new dwellings are likely to appear. This will create two problems: most importantly, it may create bias in survey estimates in so far as new dwellings contain atypical households, which is likely. It will also mean that national totals estimated directly from the weighted survey data will be underestimates, and will particularly tend to underestimate urban components.

[43] If any stratum*panel unit has less than 50% response rate for any particular quarter, then this adjustment is calculated across a number of strata, combined according to a pre-defined hierarchy. Since the HUES is not panelled, and no stratum had less than 50% response, there is no need to undertake the collapsing of this adjustment factor in the HUES.

This is visible in the fact that all of the listing adjustment factors are less than one. The sum of the IHS weights (multiplied by average household size) gives an estimated national population of 3.8 million compared with the Census estimate of 4.3 million, with most of the difference in urban areas. The DS argues that the census probably overestimated population, suggesting that the problem is not quite as bad as it appears from these figures, but it nevertheless raises serious concerns.

2. Non-response in the IHS.

There are also concerns about the Ievel of non-response in the IHS. As outlined above, some 83% of the original sample was interviewed and this falls to 75% in urban areas. Since non-interviewed households are not likely to be typical, this also raises concerns about the representativity of the sample, particularly in urban areas.

3. Calculation of the weights

There is a concern that the process of calculating the weights may underestimate the true variance in the sample. This is because the adjustments for the number of households listed and for non-response are done at the stratum and stratum*panel levels respectively, rather than at the PSU level. In addition, the 'collapsing' process, whereby the second adjustment is calculated across different strata if any panel*stratum unit has less than 50% response may introduce biases; it is also not clear why the aggregation is not across panels within a stratum rather than aggregating across strata within a panel.

The review and expansion of the IHS that is currently being undertaken should consider how to address some of these concerns. There is an also an opportunity because of the preparations for the next census in 2010. The DS is planning to use the census to address the main problems of the sample frame. Reducing non-response and the calculation of the weights should also be considered. This is important to ensure that the IHS and resulting national statistics are as reliable as possible.

Implications for the HUES

For reasons of comparability, the weights for the HUES were calculated in the same way as the IHS weights, except that $n_{ijkl,}$ i_{ijkl} and u_{ijkl} refer to the HUES sample instead of the IHS. The panel subscript is irrelevant for the HUES.

Relevant health sector estimates, including for health accounts, will continue to be derived from the IHS and so basing findings and adjustments on existing practice is appropriate. However, the potential biases need to be recognised. The sensitivity to alternative specifications and adjustments to address some of the concerns about the IHS weights was assessed briefly using weight that are normalised to the Census urban/rural populations. They are reported briefly in the main text where relevant. However, little can be done to address biases due to the possible exclusion of certain types of household from the sample.

The DS has indicated that it plans to base the IHS on a revised, geographically based household sample by 2009. This would provide a basis to revise the HUES sample, probably based on a combination of panel and a sample of new households. This will provide better national estimates for the second round and thought might be given to whether previous estimates can also be revised in the light of this information.

HUES sample completion

On the basis of the experience with IHS, it was expected that the response rate would be about 83.5%, leading to 2,835 completed interviews. In fact, the completion rate turned out to be as high as 94.8%. 3,218 households were interviewed. The non-response was 3.3%.

Table E.2 Completion rate

	Frequency	Percent
Interviewed	3,218	94.8
Ineligible	65	1.9
Non-response	112	3.3
Total	**3,395**	**100.0**

With respect to different sample sources, 3125 households were sampled from the IHS. Overall, 2,859 households were linked to their IHS data and were complete for the purposes of analysis (18 of the interviewed households could not be linked).

Table E.3 Overview of sample sources and sample outcomes

Sample source	Sample outcome			
	Interviewed	Ineligible	Non-response	Total
HH sampled from IHS and not substituted	2,877	62	106	3,045
Sampled from IHS but another HH interviewed	78	1	1	80
Not sampled from IHS	263	2	5	270
Total	**3,218**	**65**	**112**	**3,395**

Annex F Confidence intervals around selected estimates

Confidence intervals are determined at a 95% level of confidence, taking into account the sampling procedure described in Annex E.

The confidence intervals have been computed for various subgroups.

Table F.1 Confidence interval for prevalence of chronic illness

Chronic disease (C1)	Estimate	95% Confidence Interval		
		Lower	Upper	Design Effect
population	37.1	35.7	38.6	2.8
Urban	37.5	35.6	39.5	2.4
Rural	36.7	34.6	38.9	3.2
pilot (rural	35.5	32.9	38.3	3.5
other rural	39.5	36.0	43.2	2.5
male 0-14 yrs	9.6	7.8	11.9	1.4
male 15-60 yrs	26.7	24.9	28.6	1.6
male 60+ yrs	70.2	66.3	73.8	1.8
female 0-14 yrs	8.3	6.5	10.6	1.4
female 15-60 yrs	35.9	34.1	37.8	1.4
female 60+ yrs	80.5	77.6	83.1	1.9
beneficiaries of state insurance programme	50.0	46.2	53.7	2.4
not beneficiaries of state insurance programme	35.0	33.6	36.5	2.4
Poorest fifth	34.1	30.5	37.9	3.4
2	37.0	34.1	40.0	2.0
3	37.3	34.7	39.9	1.6
4	38.0	35.1	41.0	2.0
Richest fifth	38.6	35.6	41.6	2.1

Table F.2 Confidence interval for consultations of health care provider if chronically ill, or acutely sick during last 6 months

Consultations if sick during last 6 months (C6, C12, C13)	Estimate	95% Confidence Interval		
	Mean	Lower	Upper	Design Effect
population	59.1	56.9	61.3	3.2
Urban	59.6	56.6	62.5	3.1
Rural	58.6	55.4	61.7	3.4
pilot (rural Ajara, Kakheti, Imereti, Shida, Kvemo)	57.1	53.4	60.8	3.1
other rural	61.7	55.3	67.7	4.1
male 0-14 yrs	66.6	60.5	72.2	1.7
male 15-60 yrs	55.8	52.3	59.2	1.7
male 60+ yrs	62.3	58.2	66.1	1.4
female 0-14 yrs	66.3	58.7	73.2	2.2
female 15-60 yrs	57.7	54.8	60.6	1.7
female 60+ yrs	58.3	54.8	61.8	1.7
beneficiaries of state insurance programme	58.3	53.9	62.5	2.1
not beneficiaries of state insurance programme	59.3	57.0	61.4	2.8
Poorest fifth	55.2	50.1	60.2	2.7
2	57.2	53.4	60.9	1.6
3	60.0	56.1	63.9	1.8
4	61.5	57.4	65.5	2.0
Richest fifth	63.5	59.0	67.8	2.6

Table F.3 Confidence interval for percentage with acute sickness during last 30 days

acute sickness during last 30 days (C3+C4)	Estimate	95% Confidence Interval		
		Lower	Upper	Design Effect
population	15.6	14.3	17.0	4.2
Urban	18.9	16.9	21.1	4.3
Rural	12.6	11.0	14.4	4.1
pilot (rural Ajara, Kakheti, Imereti, Shida, Kvemo)	13.1	11.3	15.2	3.8
other rural	11.3	8.4	15.1	5.0
male 0-14 yrs	16.2	13.6	19.2	1.6
male 15-60 yrs	11.2	9.7	12.8	2.2
male 60+ yrs	19.4	16.4	22.8	1.7
female 0-14 yrs	14.3	11.4	17.8	2.1
female 15-60 yrs	16.8	15.0	18.8	2.5
female 60+ yrs	21.1	18.3	24.2	2.0
beneficiaries of state insurance programme	16.0	13.3	19.1	2.7
not beneficiaries of state insurance programme	15.6	14.2	17.0	3.9
Poorest fifth	14.4	12.2	17.0	2.6
2	14.6	12.5	17.0	2.2
3	16.6	14.4	19.1	2.2
4	14.9	12.5	17.5	2.7
Richest fifth	17.5	14.9	20.4	2.7