

Catastrophic and impoverishing effects of out-of-pocket payments for health care in Albania: evidence from Albania Living Standards Measurement Surveys 2002, 2005 and 2008

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The absence of or poorly functioning risk pooling mechanisms and high amounts of out-of-pocket payments for health care expose households to financial risks associated with major illnesses or accidents. The aim of this article is to analyse the extent to which out-of-pocket health spending impoverishes households in Albania. The study augments existing evidence by analysing the dynamics of such payments over different years and the weight that informal payments have in the total out-of-pocket health spending.

The data used in the study come from the Albania Living Standards Measurement Survey (ALSMS) for 2002, 2005 and 2008. We measure headcount catastrophic payments using different thresholds and the decomposition of indicators by expenditure quintiles to better understand their effects. We find that out-of-pocket and informal payments have increased in real value throughout the years. Even though their catastrophic effect has gone down (due also to declining trends in absolute poverty), the effect for the poorest expenditure quintiles remains high. Out-of-pocket payments deepen the poverty headcount and also enlarge the poverty gap and again the effect is larger for the poorest quintiles. Future policy interventions should provide better protection mechanisms for the poor by providing exemption criteria or subsidized transport. They should also seek to address the widespread informal payments in the country.

Keywords Catastrophic health care payments, out-of-pocket payments, poverty, informal payments

KEY MESSAGES

- Out-of-pocket and informal payments for health care increased in real value in Albania from 2002 to 2008.
- The catastrophic effect of payments has decreased but the effect on the poorest quintile remains high.
- Future policy interventions should provide better protection for the poor by providing fee exemption criteria, subsidizing transport and addressing the practice of informal payments.

Introduction

High levels of out-of-pocket payments for health care expose households to financial risks associated with major illness (World Bank 1993; World Bank 1995; WHO 2005). Expecting households to make some financial contribution for their health care is reasonable even in wealthy countries with sophisticated public and private health insurance, and particularly for frequently occurring conditions that are inexpensive to remedy. However, an over-reliance on out-of-pocket payments for health care may endanger households' customary standards of living and disrupt household welfare (Berki 1986; Gertler and Gruber 2002; Xu *et al.* 2003; O'Donnell *et al.* 2005; Van Doorslaer *et al.* 2007; Wagstaff 2007), particularly for serious, less-frequently occurring conditions for which the costs of treatment can quickly mount. Households, especially in developing countries, may not be able to insure their basic needs (World Bank 1993; World Bank 1995) and uninsured health care events can therefore increase the risk of loss of income from reduced labour supply or lower productivity. This can cause long-term consequences pushing households into a 'trans-generational cycle' of poverty (Baeza and Packard 2005). High out-of-pocket payments for health care can also prevent some people from seeking necessary health care, thus creating barriers to access for the most poor (Xu *et al.* 2007).

In essence, health care costs can be considered catastrophic when they force individuals or households to significantly decrease their standard of living now or in the future (Stiglitz 1988). A survey of 89 countries has showed that almost 150 million people globally suffer financial catastrophe because of high out-of-pocket health care expenditures (Xu *et al.* 2007). Given that one of the main objectives of health care systems should be ensuring equity among health care seekers, households should be protected against such catastrophic medical expenditures (WHO 2000).

While cross-country comparisons show that out-of-pocket payments are prevalent in most of the countries of the Western Balkans, recent studies (Bredenkamp *et al.* 2010) show that catastrophic out-of-pocket payments (including informal payments) in Albania are higher than in most other countries. When this finding is examined alongside the much higher share of out-of-pocket spending in total health financing in Albania and the much higher incidence of informal payments, concern that these payments are further raising barriers to care and increasing the financial vulnerability of households grows.

This article looks at the effect of out-of-pocket and informal payments on household expenditures by exploring the Albania Living Standards Measurement Survey (ALSMS) data for 2002, 2005 and 2008.¹ The article focuses on two main aspects of out-of-pocket payments: (i) the incidence and intensity of 'catastrophic' health care expenditure, and (ii) the effect of

out-of-pocket payments on poverty headcount and poverty gap measures.² The main questions that this article attempts to answer are: does out-of-pocket health spending impoverish households in Albania? What role do informal payments have in increasing the burden of out-of-pocket health spending? The article uses the decomposition of out-of-pocket payments in health care by main expenditure quintiles to look at the particular burden for different categories. Further decomposition of such payments by main components and public/private sector aims to give a 'panoramic' picture of the main developments over the years.

The Albanian health care system

The health care system in Albania has its roots in the Soviet 'Semashko' model, dominated by the public provision of services. The system had been designed to cover the entire territory including every single village, according to the communist ideology of 'free health care services for all'. The health sector during the communist period was underfinanced and considered as a non-productive sector (Nuri and Tragakes 2002). The funds allocated to the health sector were low and investments in health technology were even lower. The priority of the government in health care mainly related to providing access to primary and secondary care. This led to a widely distributed web of primary health care (PHC) posts and centres, and to a relatively large number of local and regional hospitals (most of which had outdated equipment and were overstuffed).

The reforms that followed immediately after the onset of the democratic regime were focused mostly on reorganizing the responsibilities of health care centres. The decentralization process in the mid-1990s gave ownership rights of some health care facilities to local governments (mainly PHC facilities in rural areas), while most of the polyclinics and hospitals in urban areas were still owned by the Ministry of Health (MoH) (Nuri and Tragakes 2002). The PHC policy developed by the government in 1997 (World Bank 2006) aimed to maintain a health post for each locality and a health centre for each commune centre. According to the MoH, in 1993, Albania had 2191 health posts (of which only about half were operational) and 770 health care centres. In 2008, this number had dropped to about 1877 health posts and 580 health centres (Ministry of Health 2010). The Health Insurance Institute (HII) was established in 1994 to cover PHC visits, reimburse approved drugs and cover the costs of secondary and tertiary care. The hospital sector is still dominated by the public sector where the MoH is the owner and administrator of all hospitals (World Bank 2006). The number of operative hospitals was 41 in 2008, of which four were university hospitals in Tirana, 11 were regional

hospitals and 22 were district hospitals (Ministry of Health 2010). Interventions in the hospital sector have mainly sought to improve the infrastructure of the sector and during 2002–08 little happened in terms of reforming the way providers were financed.

The reforms have been far more market-oriented in the pharmaceutical and dental care sectors. The Law on Medicines, which was passed in 1994, set the necessary legislative framework for a complete privatization of the pharmaceutical sector. The number of private pharmacies was reported to be about 1000 in 2004 (World Bank 2006) and continued rising during the following years.

Albania spent around 6.8% of its gross domestic product (GDP) on health care in 2008 (WHO 2010). However, only about 42.4% of this amount was from the public budget. The share of out-of-pocket expenditures remains high in Albania³ compared with similar Central and Eastern Europe (CEE) and Former Soviet Union (FSU) countries. Health insurance in Albania covers most of the costs of PHC and almost all the costs of hospital care. Recently patients have been required to pay a small fixed co-payment per visit in a PHC centre or specialized treatment in hospital care (DGESAE0-EC 2008). Despite the fact that the law states that all citizens⁴ should be covered by health insurance, surveys show that only about 40–45% of the population declares having a valid health insurance booklet (World Bank 2006). Moreover, the same studies show that there are large inequalities in health insurance coverage when considering different regions of Albania (i.e. only 20% of the population of the mountainous areas has health insurance).

Data and methodology

Out-of-pocket expenditures for health care in Albania are assessed in this article using ALSMS data for three different years: 2002, 2005 and 2008. The ALSMS uses a stratified geographical sample dividing Albania into four areas: Tirana (the capital) and three other agro-ecological/economic areas (Coastal, Central and Mountainous). The survey is therefore representative of all areas. The total sample size of the ALSMS aimed to be 3600 in 2002, 3640 in 2005 and 3600 in 2008. The questionnaires include information on household demography, education, labour, income, health status and health care episodes and health care payments. The health care module includes questions on visits to public hospitals in the last 12 months (hereafter referred to as inpatient services), and health care posts/centres/polyclinics in the last 4 weeks (hereafter referred to as outpatient services).

Out-of-pocket expenditure for health care includes all categories of expenditures in inpatient and outpatient public and private services related to medical fees, laboratory tests, drugs purchased, gifts paid to medical staff and transport. Expenditures incurred in hospitals outside of Albania are excluded from this analysis.

Out-of-pocket expenditures for health care are defined as catastrophic if they exceed a critical share of households' resources during 1 year (Berki 1986; Wagstaff and van Doorslaer 2003; Xu *et al.* 2003; Russell 2004). The main measures include the incidence of catastrophic health care expenditure (the headcount index), the overshoot as well as

concentration index, and mean positive overshoot (see also Wagstaff and van Doorslaer 2003).

The headcount index (incidence) measures the share of individuals for whom the proportion of out-of-pocket payments (OOP) for health (shown as a percentage of total spending) exceeds a proportional measure of total expenditures set as a threshold z .⁵ Health economists have not yet agreed on a uniformly accepted threshold of out-of-pocket spending that triggers alarm or that unambiguously motivates a policy response. However, the literature gives numerous examples of thresholds that can be used to attract the attention of health policy makers. For example, researchers have used thresholds varying from 5% (Berki 1986), 10% (Waters *et al.* 2004) and up to 40% when non-subsistence spending is used as a denominator (Wagstaff and van Doorslaer 2003; Xu *et al.* 2003). In order to test the sensibility of our estimations, we discuss here the results for different thresholds ranging from 5–25% of the total expenditures and 5–40% of non-food expenditures.

One of the aspects of the headcount index to be criticized is that it does not incorporate a measure by which households exceed the threshold set (Wagstaff and van Doorslaer 2003). This is instead given by the 'catastrophic payment overshoot'. The overshoot represents the average extent by which health care expenditure (as a proportion of total expenditure) exceeds the respective threshold. In other words it measures the intensity of catastrophic out-of-pocket payments. In this respect, the overshoot complements the headcount measure of catastrophic payments.

The aspects of catastrophic payments in the total population are well represented by the headcount and overshoot indexes. Yet they tell little about who is more likely to suffer such catastrophic payments. The concentration index (C_E) displayed in Table 4 can estimate such effect. A positive value of the concentration index shows that better-off households have a greater tendency to fall into catastrophic payments and a negative value shows a greater tendency among the poorest.

Results

Out-of-pocket spending in Albania

Albania's limited public spending on the health care sector (as compared with other Balkan or Eastern European countries) has resulted in an increased reliance on out-of-pocket payments for both inpatient and outpatient care (Nuri and Tragakes 2002; Bredenkamp *et al.* 2010). In general, there is a lack of clarity between formal and informal payments in Albania. The changes in legislation in early transition years imposed co-payments for users of PHC. Albanian health care seekers are therefore confronted with other formal out-of-pocket payments for laboratory tests, medicines and transportation expenditures. However, it is not always clear whether such payments are paid formally or informally (Hotchkiss *et al.* 2005). As the Albanian legislation prohibits direct payments to medical staff, most of the studies focusing on informal payments address exclusively the voluntary or requested payments paid to medical staff.

Various studies confirm the high level of informal payments in Albania. Albanian LSMS data of 1996 show that such payments amount to about US\$18 per capita for those who

sought health care (Lewis 2002). Hotchkiss *et al.* (2005), using data from the Albania survey of basic health care utilization, expenditure and quality (2002–2004), found that almost 24.7% of acutely-ill outpatients pay (informal) gifts to medical staff. Other studies conducted in 2000 and 2002 show that the percentage of patients paying informally in hospitals varied between 60 and 78% (Albania Ministry of Health 2000; Bonilla-Chacin 2003).

Our estimations are based on data from the ALSMS 2002, 2005 and 2008. Table 1 gives the average gross expenditures per capita (including health expenditures), overall health expenditures per capita, as well as total net expenditure per capita (excluding health expenditures). All expenditures are indexed with 2002 prices and the estimates include only those households who have actually paid out-of-pocket payments (see Table A1 in the appendix for a proportion of people paying out-of-pocket payments). As can be observed, total net expenditure per capita has

increased in real value from 11 092 Albanian leks (ALL) in 2002 to 11 923 ALL in 2008. This is consistent with the decrease in the headcount poverty indexed throughout the same years (INSTAT 2009).⁶ The overall (out-of-pocket) health expenditure per capita was on average 808.30 ALL in 2002 and increased to 1125.65 ALL in 2008. This increase has been aided by the increase in all the items of health expenditure (formal payments, informal payment, transport fees, expenditures on private health care providers and also drugs purchased on own initiative).

Formal out-of-pocket payments in the public health care sector and payments in the private health sector are the two categories with the largest increase over the years. Formal out-of-pocket payments per capita have increased by almost 500 ALL from 2002 to 2008 (from 767 ALL to 1269 ALL), while expenditures in the private sector have increased by 175 ALL over the same period (from 298 ALL to 473 ALL). The value of informal payments per capita has also increased substantially

Table 1 Average per capita expenditures on health and non-health items (in Albanian Leks)

	Per capita gross expenditure (health payments included)	Overall per capita health expenditures	Per capita net expenditure (health payments excluded)	Overall per capita health expenditures			
				Per capita health expenditures on formal payments ^a	Per capita informal payments on public health care services ^b	Per capita health expenditures on transport	Per capita total expenditures in the private health sector ^c
Year 2002							
Lowest quintile	4296.69***	493.94***	3802.75***	475.14***	121.17***	101.82***	144.49***
2	6230.03***	653.82**	5576.20***	659.04	165.96	188.14	183.04***
3	7915.78***	698.51*	7217.28***	591.48***	177.93*	128.94**	265.7
4	10317.47***	780.42	9537.05***	777.19	229.42	248.82	236.42*
Highest quintile	18077.70***	1071.82***	17005.89***	1041.31***	318.72***	286.27*	471.78***
Total	11092.29	808.30	10284.00	767.10	220.98	193.93	298.44
Year 2005							
Lowest quintile	4394.93***	519.44***	3875.50***	496.82***	152.64***	104.60**	157.97***
2	6446.95***	617.97	5828.98***	639.36	278.78	128.55	179.59***
3	8698.88***	763.44	7935.44***	749.24	267.69	127.79	271.39
4	11147.78**	708.37	10439.42**	753.25	252.24	141.84	264.33
Highest quintile	19054.34***	902.40***	18151.94***	1041.77***	348.80**	202.30*	381.92***
Total	10801.00	723.05	10077.95	748.55	256.89	136.39	267.80
Year 2008							
Lowest quintile	5438.88***	849.31	4589.57***	865.67*	777.96	182.29	203.18***
2	7655.03***	866.62	6788.40***	1039.79	208.58	150.78*	327.82
3	9520.95***	769.02**	8751.93***	972.28*	230.17	186.8	307.83*
4	12837.11**	1463.46	11373.65**	1494.32	426.61	288.23	727.13
Highest quintile	21422.69***	1520.30*	19902.39***	1797.93*	336.94	236.36	658.98*
Total	11923.66	1125.65	10798.01	1269.22	384.54	208.19	473.96

Notes: Asterisks indicate if the mean for the particular quintile is significantly different from the mean of all other quintiles (*** $P < 0.01$, ** $P < 0.05$, * $P < 0.1$). All estimates are weighted for total population. All amounts are in Albanian Leks and are deflated to 2002 prices. 100 ALL = 0.73 Euros in June 2002 (Bank of Albania 2010).

Expenditures are given as averages for each of the categories only for those households which have actually spent for that particular category.

^aPer capita health expenditures on formal payments include out-of-pocket expenditures on medical fees in public outpatient and inpatient services, laboratory tests and drugs purchased (expenditures incurred in hospitals outside Albania are omitted from the table).

^bInformal payments in health care include gifts paid to medical staff in public outpatient and inpatient services.

^cHealth expenditures in the private sector include out-of-pocket expenditures on medical fees, laboratory tests, drugs purchased and gifts to medical staff in private services.

over the years, from 220 ALL in 2002 to 384 ALL in 2008. The constant increase of these informal payments throughout the whole period demonstrates that they continue to be persistent in the Albanian health care system, and that little has been achieved in containing them throughout these years.

The dynamic of categories of payments over the years is also interesting. Payments for most of the categories, i.e. formal payments, transportation expenditures or payments to the private sector, seem to have decreased in real value from 2002 to 2005, while they increased substantially in 2008. The increase in formal payments may be due to a more aggressive policy in enforcing the referral system or increasing the formal fees paid in outpatient and inpatient care.⁷ On the other hand, the increased share of the private sector is more evident in 2008 causing also a substantial increase in the expenditures going to this sector.

While the increase in total out-of-pocket payments in 2008 increases concerns over the catastrophic aspect of such payments for households, another worrying trend is the distribution of informal payments between quintiles of per capita

expenditure. As can be observed, the amount that the lowest quintile pays informally has increased almost five times over the years (from 121 ALL in 2002 to 777 ALL in 2008), while in higher quintiles there is a more moderate increase. The formal payments for the same quintile have almost doubled for the same period, demonstrating that the effects of any increase in fees are mostly transmitted to the lowest quintiles.

Similarly to the previous table, Table 2 shows the distribution of health and total non-health expenditures across each of the quintiles. The table shows that the share of total health expenditures paid by patients of the poorest quintile has increased significantly from 2002 to 2008 (from 0.07 to 0.13%). Moreover, the table shows that such increase is mainly due to an increase in the share of informal payments and transportation expenditures paid by patients in this quintile. Hence, in 2008 almost 30% of all informal payments and 21% of all transportation expenditures belonged to the lowest quintile (while these shares were 7 and 9%, respectively, in 2002).

Unfortunately, this increase in the relative shares of out-of-pocket payments has not been accompanied by a similar

Table 2 Financing budget shares on health and non-health items

	Per capita expenditure gross of health payments	Overall per capita health expenditures	Per capita expenditure net of payments	Overall per capita health expenditures			
				Per capita health expenditures on formal payments ^a	Per capita informal payments in health care ^b	Per capita health expenditures on transport	Per capita private expenditures in private sector ^c
Year 2002							
Lowest quintile	0.04	0.07	0.04	0.08	0.07	0.09	0.07
2	0.08	0.14	0.07	0.16	0.12	0.19	0.10
3	0.11	0.16	0.11	0.15	0.17	0.17	0.18
4	0.20	0.22	0.20	0.22	0.24	0.26	0.19
Highest quintile	0.57	0.41	0.57	0.39	0.40	0.29	0.47
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Year 2005							
Lowest quintile	0.06	0.10	0.06	0.11	0.10	0.15	0.07
2	0.11	0.16	0.11	0.17	0.23	0.21	0.12
3	0.15	0.20	0.15	0.20	0.20	0.21	0.19
4	0.23	0.21	0.23	0.21	0.16	0.21	0.22
Highest quintile	0.45	0.33	0.46	0.31	0.32	0.22	0.40
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Year 2008							
Lowest quintile	0.08	0.13	0.08	0.13	0.30	0.21	0.08
2	0.12	0.13	0.12	0.13	0.12	0.14	0.12
3	0.16	0.17	0.16	0.18	0.13	0.16	0.15
4	0.22	0.28	0.22	0.25	0.24	0.25	0.34
Highest quintile	0.42	0.30	0.43	0.31	0.20	0.24	0.30
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Notes: All estimates are weighted for total population.

^aPer capita health expenditures on formal payments include out-of-pocket expenditures on medical fees, laboratory tests and drugs purchased in public outpatient and inpatient services (expenditures incurred in hospitals outside Albania are omitted from the table).

^bInformal payments in health care include gifts paid to medical staff in public outpatient and inpatient services.

^cHealth expenditures in the private sector include out-of-pocket expenditures on medical fees, laboratory tests, drugs purchased and gifts to medical staff in private services.

increase in the relative per capita total expenditure (which has only increased from 4 to 8% for the poorest quintile). This shows again that policy measures through 2002 and 2008 have had a negative impact on the poorest quintiles. In 2008 the poorest households had (on average) relatively less budget than the rich if compared with 2002, but they face higher out-of-pocket payments. The dramatic increase in transportation expenditures demonstrates that these people now face more barriers to health care than before.

Health care catastrophic payments in Albania

When total expenditure is used as the denominator the most common threshold employed in the literature to measure catastrophic spending is 10%—the threshold at which prior research has found households can be forced to sacrifice basic necessities (Pradhan and Prescott 2002; Ranson 2002; Wagstaff and van Doorslaer 2003). Table 3 presents alternative measures of catastrophic payments for health care for each quintile of household non-health expenditure, over the three waves of the ALSMS. In 2002, 22.6% of the population paid health care out-of-pocket costs that exceeded 10% of their total per capita budget. Encouragingly, this incidence declined to 17.6% in 2005, and further to 13.3% in 2008.⁸ The largest drop occurred between 2005 and 2008 and may be related to the general fall in poverty during that period (INSTAT 2009). However, as observed previously, households in the lowest quintile seemed to have suffered the most from catastrophic payments (according to this threshold) throughout the period of analysis. The share of individuals in the lowest quintile paying more than 10% of their total expenditures out-of-pocket for health services was about 29–30% in 2002 and 2005, and only decreased to 20% in 2008.

Table 3 also gives information on the measures of catastrophic overshoot for each of the years. The table shows that the intensity of catastrophic payments drops as the threshold is raised from 5 to 25% of total expenditure throughout all years. The mean positive overshoot, on the other hand, gives an idea of the average spending out-of-pocket for all those exceeding the threshold. Hence, we observe that households spending more than 10% of their expenditures on out-of-pocket costs spend on average 39.9% in out-of-pocket expenditures in 2002, 25.6% in 2005 and 40.8% in 2008.⁹ As these numbers show, the average out-of-pocket amount paid as a share of total expenditure has increased sharply over the period 2005 to 2008. This reinforces our previous finding regarding the dramatic increase in certain categories of health care expenditure such as formal payments and expenditures on private health care.

The impoverishing impact of out-of-pocket expenditures in Albania

Most societies care if the households making catastrophic out-of-pocket payments belong to the poorest quintiles rather than to the richest ones. In order to estimate this we have calculated the concentration index, C_E , displayed in Table 4 which can estimate such effect. As we can see from the table, for every threshold we choose over different years, the poorest have a greater tendency to fall into catastrophic payments.

Table 5 shows that out-of-pocket health expenditures have increased the percentage of poor Albanian households. The

Table 3 Incidence and intensity of catastrophic health payments defined with respect to total expenditure

Catastrophic payments measures	Threshold budget share			
	Thresh. 5%	Thresh. 10%	Thresh. 15%	Thresh. 25%
Year 2002				
Headcount (H)				
Lowest non-health expenditure quintile	45.2	29.9	20.6	12.2
2	41.1	26.7	18.2	8.9
3	37.2	24.1	15.1	8.6
4	33.8	20.6	13.4	6.5
Highest non-health expenditure quintile	25.3	11.7	7.3	4.1
Total	36.5	22.6	14.9	8.1
Overshoot (O)	5.4	4.0	3.1	2.0
Mean positive overshoot (MPO)	45.2	29.9	20.6	12.2
Year 2005				
Headcount (H)				
Lowest non-health expenditure quintile	42.9	28.7	20.6	13.2
2	39.1	22.3	14.4	5.8
3	33.6	18.5	12.8	6.4
4	25.6	11.8	6.7	2.8
Highest non-health expenditure quintile	17.2	6.8	3.5	1.7
Total	31.6	17.6	11.6	6.0
Overshoot (O)	3.9	2.7	2.0	1.2
Mean positive overshoot (MPO)	12.4	15.6	17.4	19.9
Year 2008				
Headcount (H)				
Lowest non-health expenditure quintile	28.9	20.0	13.8	10.0
2	25.0	14.8	10.7	6.3
3	22.4	12.0	7.9	4.5
4	20.1	11.3	7.9	3.5
Highest non-health expenditure quintile	15.9	8.4	5.0	2.9
Total	22.5	13.3	9.1	5.4
Overshoot (O)	5.0	4.1	3.5	2.8
Mean positive overshoot (MPO)	22.1	30.8	38.9	52.2

poverty headcount has decreased from 2002 to 2008, but the post-payment poverty headcounts are much higher if considering out-of-pocket expenditures for health care. Poverty increases by 6.49 percentage points in 2002, by 4.34 in 2005 and by 3.61 in 2008. The poverty gap after health care payments (referred to here as the post-payment period) has consistently been higher than before these payments (referred to as the pre-payment period) during all the analysed years. The percentage point impact for the poverty gap has decreased slightly from 189.24 in 2002 to 185.93 in 2008 showing that inequalities due to out-of-pocket payments have remained almost the same if year 2008 is compared with 2002.

Table 4 Distribution-sensitive catastrophic payments measures – concentration index

Concentration index, C_E	Threshold budget share			
	Thresh. 5%	Thresh. 10%	Thresh. 15%	Thresh. 25%
Year 2002	-0.114	-0.161	-0.182	-0.201
Year 2005	-0.168	-0.257	-0.299	-0.364
Year 2008	-0.121	-0.178	-0.207	-0.278

Table 5 Measures of poverty based on per capita expenditure gross and net of spending on health care services

	Poverty headcount	Poverty gap	Normalized poverty gap	Normalized mean positive poverty gap
Year 2002				
Pre-payment headcount	26.58	300.25	6.14	23.10
Post-payment headcount	33.07	489.49	10.01	30.26
Poverty impact, percentage point change	6.49	189.24	3.87	7.17
Percentage change	24.42	63.03	63.03	31.03
Year 2005				
Pre-payment headcount	19.45	215.71	4.41	22.68
Post-payment headcount	23.79	336.57	6.88	28.92
Poverty impact, percentage point change	4.34	120.86	2.47	6.25
Percentage change	22.33	56.03	56.03	27.54
Year 2008				
Pre-payment headcount	12.19	110.18	2.25	18.47
Post-payment headcount	15.80	296.11	6.05	38.31
Poverty impact, percentage point change	3.61	185.93	3.80	19.84
Percentage change	29.60	168.75	168.75	107.38

Notes: All estimates are weighted for total population.

The catastrophic impact that out-of pocket expenditures have on households can be seen visually in Figure 1. The graphs are based on Jan Pen's parade (see also Cowell 1995; O'Donnell *et al.* 2008) and give the impact of health care expenditures by plotting household expenditures gross and net of total out-of-pocket payments. The x-axis represents the cumulative proportion of households ranked by their total non-health expenditures and the y-axis gives the level of total expenditures and out-of-pocket payments in Albanian Leks. The two moments are represented by the pre- and post-expenditure per capita and are compared against the food poverty line (the horizontal line) that amounts to 3047 ALL per capita. The drops in the expenditure levels are given by the vertical bars (which

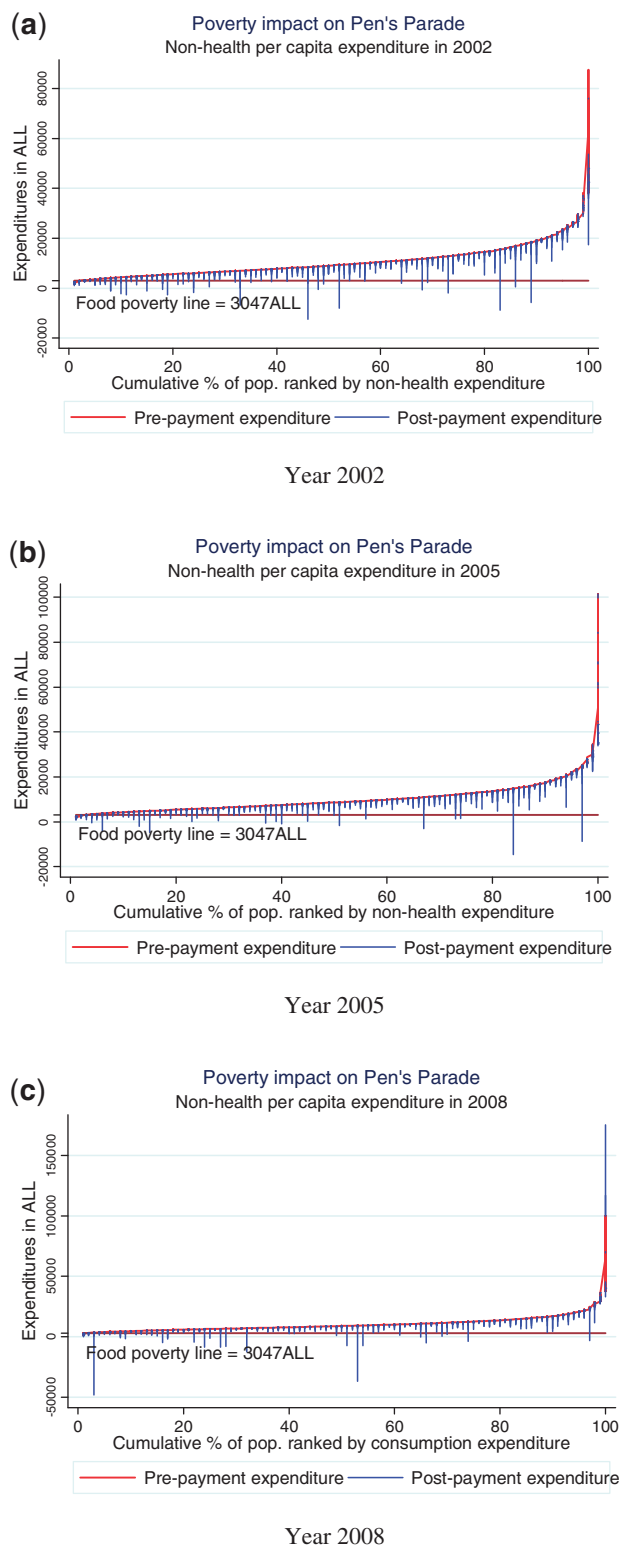


Figure 1 Poverty impact of health expenditure on the distribution of non-health expenditure

represent the exact amount of health care expenditures per capita). All graphs show that there are many households whose expenditures fall below the extreme poverty line if we assume that they forego other consumption for health care. Such effects

are not only observed for the lowest quintile but also for all the others. Out-of-pocket health expenditures tend to be higher for the higher quintiles (see Table 1), and when they are not insured, these quintiles may also be driven into poverty. Graph (c) in Figure 1 shows that for 2008 catastrophic health care expenditures tended to be more severe for certain households. This is due to the increase in private health care expenditures and also the rise in formal payments. Such increases can be problematic even for the highest quintiles, particularly in the long-run if no forms of insurance are taken against them.

Discussion and conclusions

The weak role of national health insurance in Albania, especially for inpatient care, exposes households to the financial risks associated with accidents and sickness. A large share of the health services have to be paid for out-of-pocket, sometimes up front at the point of service. Such payments include formal and informal payments to medical staff. Until 2008 the health insurance in Albania was supposed to cover most of the formal costs of primary health care and almost all the costs of hospital care. Patients were formally required to pay small, fixed co-payments per visit in PHC centres or for specialized diagnostic tests in hospital care. Despite this, evidence from the 2002, 2005 and 2008 ALSMS showed that patients continued to pay high amounts of out-of-pocket payments.

As such payments are not foreseen in the formal channels set up by the government, we have reason to believe that the amount paid in informal payments would rise if we were to use a broader definition of them (i.e. including all the payments for things that otherwise are supposed to be free of charge).

The analysis of the trends of out-of-pocket payments over recent years in Albania has shown that these payments have increased in real value from 2002 to 2008. The increase has not been the same for all the sub-categories and expenditure quintiles. Formal and informal payments for health care and payments in the private sector have increased significantly from 2002 to 2008 while expenditures on transport have remained more or less stable. The data show that the poorest households remain the most financially vulnerable to the cost of health care. Generally the poorest people (in households in the lowest expenditure quintile) spend much more in transportation expenditures or informal payments, relative to the other quintiles. The catastrophic headcounts for all thresholds show that out-of-pocket spending may still lead to catastrophic health care expenditures in Albania. Considering a 10% threshold of total per capita expenditures, the percentage experiencing catastrophic expenditure in 2002 was 22.6%, in 2005 17.6% and in 2008 13.3%. Despite the rapid decline in catastrophic payments over the last years, the decline for patients in the poorest quintile has not been in the same range remaining at 20.0% in 2008.

We have also shown that out-of-pocket health expenditures can contribute to poverty among Albanian households. Both poverty headcount and poverty gap become higher after the occurrence of out-of-pocket expenditure for health. This demonstrates an increased risk of falling into poverty (or extreme poverty) among health care seekers. The situation

may also be more serious considering an underestimation of the figures presented here for the lower end of the income distribution. This may be because poor patients face higher obstacles and financial constraints when seeking health care and therefore are more likely to not seek it at all.

Overall, the results show that despite the improvements observed, the Albanian authority should consider more seriously the reduction of out-of-pocket payments, especially for the poorest patients. This can be done through ensuring the effectiveness of prepayment mechanisms for health care and by making them more sensitive to income distribution. New evidence shows the positive impact of public health insurance programmes (e.g. Seguro Popular in Mexico) on catastrophic out-of-pocket payments by the poor (Garcia-Diaz and Sosa-Rub 2011). Another alternative intervention would be the revision of the user fees structure so that it reflects the income distribution (as the poor seem more likely to suffer the effects of formal payments). This would include reinforcing fee exemptions for vulnerable groups (e.g. the unemployed, recipients of social assistance, pregnant women, the disabled, people suffering severe illnesses, etc). Another potential policy measure is price subsidies, which have proven effective in reducing catastrophic payments in other countries (Pradhan and Prescott 2002). Given that particular items like informal payments or transportation expenditures have a significant contribution in overall out-of-pocket expenditures, the government should also have clear policies in addressing them. While informal payments are more difficult to address (as they require integrated measures dealing with governance, accountability and availability of resources), transportation expenditures may be reduced more easily through measures like subsidized transportation for the poor or simply a more effective distribution of health care centres.

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Conflict of interest

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Endnotes

- ¹ Albanian Living Standards Measurement Survey. World Bank. Online at: <http://www.worldbank.org/lsm>.
- ² The poverty headcount gives the rate of total population under a pre-defined poverty line. The poverty gap represents the mean distance of the income/expenditure of the poor from the poverty line expressed as a proportion of the poverty line for the total population.
- ³ In 2008 about 57.6% of total expenditure on health was private expenditure (WHO 2010).
- ⁴ Apart from people paying for health insurance through formal employment (or self declarations), the law provides coverage also for other groups, such as children below 1 year, the unemployed, social assistance recipients, soldiers, students, pensioners and war veterans, pregnant women, and other vulnerable categories.

- ⁵ If we define z as a proportional threshold of total expenditures (T) such as E takes the value of '1' each time $OOP_i/T_i > z$, then the headcount index is equal to: $H = \frac{1}{N} \sum_{i=1}^N E_i$, where N is the number of total population.
- ⁶ Official measures of poverty in Albania calculated by the Institute of Statistics of Albania exclude health expenditures from the aggregated expenditures used for measuring absolute headcount poverty.
- ⁷ The reinforcement of the referral system was in fact more evident after 2009 when penalties were introduced for hospitals that did not comply with the referral system (HII 2010). These penalties varied from 10 000 to 30 000 ALL). However, some efforts were already made in the preceding years to impose higher fees for patients without a referral from the family doctor.
- ⁸ Bredekamp *et al.* (2010) have reported a headcount percentage of 20.79 in 2005 at the 10% level. The authors believe that this is due to the changes in the out-of-pocket aggregates as the current estimations exclude all the hospital payments made outside Albania.
- ⁹ The average out-of-pocket payment as a ratio of total expenditures for households exceeding a certain threshold is given as the sum of the threshold and MPO ($z + MPO$). For example, in 2002 for the 10% threshold the average amount spent from those exceeding the threshold is $10\% + 29.9\% = 39.9\%$.

References

- Albania Ministry of Health. 2000. Albanian Public's Perceptions of the Health Care System. Tirana, Albania: Albanian Health System Recovery and Development Project.
- Baeza C, Packard TG. 2005. *Beyond Survival: Protecting Households from the Impoverishing Effects of Health Shocks in Latin America*. Washington, DC: World Bank.
- Bank of Albania. 2010. Exchange Rate Archive for 2002. http://www.bankofalbania.org/web/exchange_rates_archive_2372_2.php, accessed April 2010.
- Berki SE. 1986. A look at catastrophic medical expenses and the poor. *Health Affairs* **5**: 138–45.
- Bonilla-Chacin ME. 2003. Health and poverty in Albania: Background paper for the Albania Poverty Assessment, Europe and Central Asia Sector for Human Development. Washington, DC, World Bank: 1–59.
- Bredenkamp C, Mendola M, Gragnolati M. 2010. Catastrophic and impoverishing effects of health expenditure: new evidence from the Western Balkans. *Health Policy and Planning* **26**: 1–8.
- Cowell FA. 1995. *Measuring Inequality*. London and New York: Prentice Hall/Harvester Wheat sheaf.
- DGESAEO-EC. 2008. Social inclusion and social protection in Albania. Brussels: Directorate-General for Employment, Social Affairs and Equal Opportunities, European Commission.
- Garcia-Diaz R, Sosa-Rub SG. 2011. Analysis of the distributional impact of out-of-pocket health payments: evidence from a public health insurance program for the poor in Mexico. *Journal of Health Economics* **30**: 707–18.
- Gertler P, Gruber J. 2002. Insuring consumption against illness. *American Economic Review* **92**: 51–70.
- Health Insurance Institute. 2010. Focus. Periodic Magazine No 14, December 2010.
- Hotchkiss DR, Hutchinson PL, Malaj A, Berruti AA. 2005. Out-of-pocket payments and utilization of health care services in Albania: Evidence from three districts. *Health Policy* **75**: 18–39.
- Institute of Statistics of Albania (INSTAT). 2009. Database online at: <http://www.instat.gov.al/>, accessed December 2009.
- Lewis M. 2002. Informal health payments in Central and Eastern Europe and the Former Soviet Union: issues, trends and policy implications. In Figueres J, Moussiales E (eds). *Funding Health Care: Options for Europe*. Buckingham: Open University Press, pp. 184–205.
- Ministry of Health of Albania. 2010. Database online at: http://www.moh.gov.al/statistik/Aktiviteti_20i_20insitucioneve_20paresore.xls, accessed December 2010.
- Nuri B, Tragakes E. 2002. *Health Care Systems in Transition: Albania*. Copenhagen: European Observatory on Health Care Systems.
- O'Donnell O, van Doorslaer E, Rannan-Eliya RP *et al.* 2005. Explaining the incidence of catastrophic payments for health care: comparative evidence from Asia. EQUITAP Working Paper Nr.5. Erasmus University, Rotterdam, Netherlands, and Institute of Policy Studies, Colombo, Sri Lanka.
- O'Donnell O, van Doorslaer E, Wagstaff A, Lindelow M. 2008. *Analysing Health Equity using Household Survey Data: A guide to techniques and their implementation*. Washington, DC: World Bank.
- PHRplus. (2004) Primary health care reform in Albania: Baseline survey of basic health care utilization, expenditures, and quality. The Partners for Health Reformplus Project, Abt Associates Inc., Bethesda, United States.
- Pradhan M, Prescott N. 2002. Social risk management options for medical care in Indonesia. *Health Economics* **11**: 431–46.
- Ranson MK. 2002. Reduction of catastrophic health care expenditures by a community-based health insurance scheme in Gujarat, India: current experiences and challenges. *Bulletin of the World Health Organization* **80**: 613–21.
- Russell S. 2004. The economic burden of illness for households in developing countries: a review of studies focusing on malaria, tuberculosis, and human immunodeficiency virus/acquired immunodeficiency syndrome. *American Journal of Tropical Medicine and Hygiene* **71**: 147–55.
- Stiglitz JE. 1988. *Economics of the Public Sector*, 2nd edn. New York: W.W. Norton & Company.
- Van Doorslaer E, O'Donnell O, Rannan-Eliya R. 2007. Catastrophic expenditures on health care in Asia. *Health Economics* **16**: 1159–84.
- Wagstaff A, van Doorslaer E. 2003. Catastrophe and impoverishment in paying for health care: with applications to Vietnam 1993–98. *Health Economics* **12**: 921–34.
- Wagstaff A. 2007. The economic consequences of health shocks: Evidence from Vietnam. *Journal of Health Economics* **26**: 82–100.
- Waters H, Anderson G, Mays J. 2004. Measuring financial protection in health in the United States. *Health Policy* **69**: 339–49.
- WHO. 2000. *World Health Report (2000)*. Geneva: World Health Organization.
- WHO. 2005. *Sustainable health financing, universal coverage and social health insurance. 115th World Health Assembly Resolution EB115.R13*. Geneva: World Health Organization.
- WHO. 2010. World tables on NHA data. Online at: http://www.who.int/entity/nha/country/nha_ratios_and_pc_levels_en_1995-2009.xls, accessed December 2010.
- World Bank. 1993. *World development report: Investing in health*. New York: Oxford University Press for the World Bank.
- World Bank. 1995. *Averting the Old Age Crisis*. Oxford: Oxford University Press.
- World Bank. 2006. *Albania Health Sector Note*. Report No. 32612-AL. Washington, DC: World Bank.
- Xu K, Evans DE, Kawabate K, Zeramdini R, Klavus J, Murray CJL. 2003. Household catastrophic health expenditure: a multicountry analysis. *The Lancet* **362**: 111–17.
- Xu K, Evans D E, Carrin G *et al.* 2007. Protecting households from catastrophic health spending. *Health Affairs* **26**: 972–83.

Appendix

Table A1 Incidences of out-of-pocket payments for different sub-categories^a

Variable	Year 2002		Year 2005		Year 2008	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Outpatient services						
Share of patients paying formal payments	0.406	(0.491)	0.417	(0.493)	0.390	(0.488)
Share of patients paying informal payments	0.288	(0.453)	0.187	(0.390)	0.177	(0.382)
Share of patients paying for own-purchased medicines	0.965	(0.184)	0.874	(0.331)	0.815	(0.388)
Share of patients paying for laboratory work	0.292	(0.455)	0.199	(0.399)	0.192	(0.394)
Share of patients paying for transport	0.306	(0.461)	0.191	(0.393)	0.204	(0.403)
Share of patients paying out-of-pocket payments	0.982	(0.003)	0.921	(0.008)	0.875	(0.011)
Inpatient services						
Share of patients paying formal payments	0.442	(0.497)	0.685	(0.465)	0.659	(0.476)
Share of patients paying informal payments	0.585	(0.493)	0.478	(0.501)	0.571	(0.497)
Share of patients paying for own-purchased medicines	0.644	(0.479)	0.598	(0.491)	0.675	(0.470)
Share of patients paying for laboratory work	0.520	(0.500)	0.438	(0.497)	0.548	(0.500)
Share of patients paying for transport	0.659	(0.474)	0.681	(0.467)	0.722	(0.450)
Share of patients paying out-of-pocket payments	0.958	(0.009)	0.979	(0.010)	0.974	(0.018)

Notes: All estimates are weighted for total population.

^aThe incidence is given as the proportion of patients declaring to have paid something for that particular out-of-pocket category over the total of patients that have visited outpatient or inpatient services.