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Albania
Out-of-Pocket Payments in Albania's Health System

Trends in Household Perceptions and Experiences 2002-2008

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Albania

CURRENCY AND EQUIVALENT UNITS

(as of 30 January 2011)

Albanian Lek	=	100.00
US$	=	0.96
EUR	=	0.72

WEIGHTS AND MEASURES

<type weights/measures>

ABBREVIATIONS

HII	Health Insurance Institute
INSTAT	Albanian Statistic Institute
IDRA	Institute for Development Research Alternatives
GDP	Gross Domestic Product
GPF	Governance Partnership Facility
GNP	Gross National Product
MoES	Ministry of Education and Science
MoH	Ministry of Health
PHC	Primary Health Care

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Part I. Introduction, Motivation and Summary of Findings

1.a. Paying Out of Pocket: Financial Vulnerability and Obstacles to Good Health

1. **In many countries absent or poorly functioning prepayment mechanisms for health care expose families to the financial risks associated with accidents and sickness**. In these countries, a large share of the health services people need have to be paid for out-of-pocket, sometimes up front at the point of service. Although 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-- an over reliance on out-of-pocket payments for health care can lead to impoverishment, particularly for serious, less-frequently occurring conditions for which the costs of treatment can quickly mount. Health care costs can even rise to "catastrophic" levels when they force families to significantly compromise their current and future standard of living, or to divert resources from other basic needs, such education, nutrition and housing. And if prospective charges for care discourage people from visiting their family doctor, getting immunized or seeking early treatment when they suspect a health problem, their financial decisions can have dangerous consequences for public health.

2. **The out-of-pocket costs of health treatment can divert resources from other spending critical to building and sustaining human capital, increasing the risk of chronic poverty.** In health economics there isn't yet a uniformly accepted threshold amount of out-of-pocket spending that triggers alarm or that unambiguously motivates a policy response. Naturally, concern rises when families spend a large enough fraction of their budget on health care as to deprive them of other goods and services. Researchers of this topic have used varying thresholds from 10 to 25 per cent of total household expenditure, or 40 per cent of "ability to pay", that is their total spending minus food expenditures.[1] However, concern quickly grows when households exhaust precautionary savings, and are forced to sell assets, or take loans to finance the treatment they need. Concern becomes acute when out-of-pocket spending for health forces households to divest from human capital. And because uninsured health care events can lead to a loss of income from reduced labour supply or lower productivity, households can suffer long-term consequences pushing them into a cycle of poverty that can last generations (Baeza and Packard, 2005).

3. **In the formerly socialist countries of Europe, and especially in the countries of the Western Balkans, a significant share of out-of-pocket spending for health consists of "informal", "under-the-table" or "envelope" payments to physicians and nurses**.[2] Extensive prior research has documented informal payments, sought to explain the phenomenon, and shown the deteriorating impact they can have on social welfare.[3] While cross country

[1] See for example Berki 1986, Russell 2004, Wagstaff and Doorslaer 2003, Xu et al. 2003, etc.

[2] According to the definition proposed by Lewis (1999) informal payments in health care are payments to individual and institutional providers in-kind or cash that are outside the official payment channels, or are purchases that are meant to be covered by the health-care system.

[3] See for example Gaal, 2004; Delcheva et al., 1997; Vian et al., 2005; Abel-Smith and Falkingham, 1996; Hotchkiss et al., 2004; Lewis, 2007; Ensor, 2004; Kaser, 1976, Albert et al., 1992; World Bank, 2006.

comparisons have to be interpreted with caution, recent studies by the World Bank show that in Albania -as a share of total out-of-pocket spending for health- informal payments to medical staff make up a relatively small portion, when compared informal payments in to neighbouring Serbia and Kosovo. However, when this finding is examined alongside the much larger share of out-of-pocket spending in total financing of health in Albania relative in Serbia and Kosovo, and the much higher incidence of informal payments, concern that these payments are further raising barriers to care and increasing the financial vulnerability of families grows.[4]

4. **Does out-of-pocket health spending impoverish in Albania? What weight do informal payments have in increasing the burden of out-of-pocket health spending? And why are informal payments so prevalent in Albania's health system?** These are the questions that this report attempts to answer. As well as increasing out-of-pocket spending, informal payments constitute an important part of physicians' incomes. As such, many researchers argue that they contribute to filling a gap in health care financing created by a lack of adequate resources allocated to public health systems in state budgets. Some specialists have argued that introducing formal payments, improving the reward mechanisms for medical staff, increasing providers' accountability and empowering patients' "voice" can reduce the incidence of informal payments (Lewis and Pettersson, 2009), although the actual impact of these measures remains largely untested.

5. **The authorities have even undertaken some measures to make legitimate health charges more transparent in public health centres and hospitals.** However, plans to evaluate the impact of these measures in particular, and to launch additional reforms to make informal payments less prevalent, have not yet been made. Where this report can add value, therefore, is: first, to quantify the importance of out-of-pocket health spending in its various forms; second, to measure the extent of informal payments and how this varies across types of care, households, and different regions of the country; and third, where possible to identify what are the most likely explanations for the problem.

6. **In order to reduce the negative impact on households of out-of-pocket payments for health and informal payments in particular, the Government is increasing transparency in the health sector and guaranteeing access to basic care to all.** As an initial step toward this objective, the Government making changes to the health insurance system to grant coverage to all beneficiaries of the Ndihma Ekonomike, Albania's main social assistance program for poor households. As the analysis in this report shows, informal payments are partly encouraged by an unclear copayments policy, which often blurs the distinction between formal and informal payments. Informal payments are also associated with a lax definition of the type of services that health insurance should cover. Experience elsewhere has shown that it is possible to reduce informal payments when this issue is addressed as an integral part of health finance reforms of the type that Albania is undertaking. These reforms set clear limits on what public resources allocated for health can finance. Defining an explicit package of benefits in this way can help to improve equity in access and increase accountability for the services specified in the package; as patients are aware of what services they are entitled to receive and at what prices, the scope for informal payments is reduced. Definition of an explicit benefit package of health insurance

[4] For prior studies on health access problems created by informal payments and out-of-pocket payments generally, see Delcheva at al., 1997; Anon, 1999; Falkingham, 1998/99.

coverage is a recent key change in Albania's health insurance legislation that is likely to have a strong positive impact. Once the benefit package is created by law, secondary legislation will define the specific contents of the package and how much it will cost. The current Health Systems Modernization project would support the design and costing of this package. As is common in many countries that adopt an explicit package of benefits, a system of formal copayments would be introduced, including provisions to protect low-income groups by exempting them from copayments based on some kind of means testing or providing them with an additional cash benefit to face the increased cost of services. Other measures could be considered to reduce the extent of informal payments, like allowing health providers collecting copayments to retain at least part of those revenues, and implementing information campaigns to inform the population about their rights.

7. **The analysis in this report covers the period 2002-2008 and for this reason and does not take into account important measures taken since such as changes to health insurance.** The report exploits a specially designed Health Governance and Accountability module that was added to the 2008 wave of the Albania LSMS to gain additional insight into the determinants of informal payments and household perceptions and experiences of governance in the health sector more generally. From the outset, it is important to point out the limitations of the analysis presented in this report. The data from the new LSMS module cannot be used to establish causal links to judge the outcomes of any particular policy. Some measures have been taken to try to overcome these limitations using statistical techniques, but these cannot substitute for developing a strategy to evaluate the impact of structural reforms such as the new health insurance law and putting it in place before their implementation.

8. **This report is structured in four parts.** Following the motivation, introduction and summary of the report's findings in Part I, Part II sets the institutional context for readers not already familiar with Albania's health system, and presents data showing public perceptions of health care and answers to subjective questions included in the Health Governance and Accountability module of the 2008 Albania LSMS. These data have been combined with prior waves of the LSMS to show how the incidence of informal payments has changed in recent years. Part III shows the impact out-of-pocket payments –both formal and informal- have on household consumption and the incidence of poverty. Part IV presents the results of statistical analysis, using techniques to match like-households over time, in order to identify significant factors at the household level that are associated with informal payments and how these have changed during a period of structural changes in the health system. The most important findings in this report can be summarized below.

1.b. Principal Findings: Out of Pocket Spending, Informal Payments and Impoverishment in Albania

9. **Although out of pocket spending for health services in Albania declined overall, the poorest households remain the most financially vulnerable to the cost of health care.** In 2002 about 23 per cent of the population paid out-of-pocket costs for health care that exceeded 10 per cent of their total per capita budget. Encouragingly, the incidence declined to 17.6 per cent in 2005 and further to 13.3 in 2008. This decline is most likely related to the general fall in poverty during the period, since the actual amount people paid for health services out of pocket increased in real terms. However, the income gains for households in the poorest quintile were

not as great as for other groups. Throughout the period 2002-2008, the level of out of pocket payments made by people from households in the lowest quintile were more likely to reach catastrophic levels (using the 10 per cent threshold). People in this category experienced a less rapid decline in the incidence of catastrophic out of pocket payments. The share of individuals from households in the lowest quintile who paid more than 10 per cent of their total spending on out-of pocket charges for health services, was about 30 per cent in 2002 and 2005 and declined to 20 per cent in 2008, less than the decline for wealthier groups. Even when alternative spending thresholds are used the incidence of catastrophic out-of-pocket expenditures continues to be much higher for households in the lowest quintiles.

10. **Out-of-pocket health expenditures contribute to poverty among Albanian households.** While the poverty headcount decreased from 2002 to 2008, when out of pocket payments are taken into account, the post-payment poverty headcount is much higher. Taking out of pocket spending on health into account, poverty increases by 6.5 percentage points in 2002, by 5.2 in 2005 and by 1.7 in 2008.

11. **Over the six year period analyzed in this report, the overall incidence of informal payments declined.** Contrary to Albanians' general perceptions of malfeasance in the health sector, this report finds that the incidence of informal payments captured by the LSMS survey actually declined along with out of pocket payments generally for the population as a whole. However, the prevalence of informal payments differed significantly between outpatient and inpatient services. Informal payments were more limited in outpatient than in inpatient care: 28.1 per cent of outpatients made informal payments in 2002, and 19 percent made informal payments in 2008. For inpatient services the corresponding numbers are 59.7 per cent in 2002 and 43.9 per cent in 2008.

12. **But just as the poorest patients are still more likely to pay out of pocket, they are also more likely to pay informally for health services.** Informal payments for health services are widely reported across households from all quintiles of consumption. Although there was a general decrease in reported informal payments in the period from 2005 to 2008, their incidence declined less among the poorest households. In fact for outpatient services from 2005 and 2008 respondents in the poorest quintile report the highest incidence of making informal payments. The same holds, although to a lesser extent, for inpatient services. While the absolute value of informal payments per capita increased substantially over the years from 220 lek in 2002 to 384 lek in 2008 -a real increase of almost 75 percent - the amount that a person from a household in the lowest quintile pays informally increased almost five times over the same period (from 121 leks in 2002 to 777 leks in 2008).

13. **The incidence of informal payments for inpatient services declined less and payments were -on average- much higher than for outpatient services.** The average amounts paid informally for inpatient care per day, were higher than those paid for outpatient care per visit. Although there was a decline in real terms in the average amount paid informally for outpatient services, this was accompanied by an increase in the amount of informal payments for inpatient services between 2002 and 2005, which was followed by only a slight decrease between 2005 and 2008. As with the incidence of informal payments, people in poorer consumption quintiles bore the heaviest burden: in 2008 households in the poorest quintile (for outpatient services) and the second poorest quintile (for inpatient services), made informal

payments that were higher than the average amount and also higher than the informal payments made by households in all other quintiles of the consumption distribution.

1.c. The Prevalence Informal Payments in Albania: Summary of Findings

14. **The prevalence of informal payments in Albania's health system is difficult to explain with precision.** Instead of treating informal payments purely as a coping mechanism that underpaid medical staff are forced to resort to, they can also be examined as an opportunity response. In settings where structures for monitoring and accountability are absent or weak, and where medical staff face little likelihood of detection and sanction, the gains from accepting under-the-table payments far exceed the income and reputation losses of malfeasance. Medical staff have powerful information advantages that can be used to elicit "gifts" as long as this gap between gains and losses remains. Indeed, some experts propose that the incidence and amount of informal payments can be used as proxy indicators (along with others) to measure the degree to which governance structures are failing in health systems (Lewis and Petterssen, 2009).

15. **In Europe and Central Asia, informal payments originate mainly from the legacies of 'Semashko' health systems** that prevailed in most socialist planned economies. The lack of resources for health care, cultural norms, and weak governance have all been identified as contributing factors to the prevalence of informal payments (Gaal and McKee, 2005). From the academic literature, three main explanatory models have been proposed to explain informal payments, and are hotly debated (Tomini and Maarse 2009): social-cultural norms; underfunding; and weak governance.

- **The "social-cultural norms" model refers to the practice of gratitude payments observed in many countries.** Patients express their gratitude by giving small gifts or payments to physicians and other medical staff. The culture of gift giving is deeply rooted in the behaviour of patients in more cohesive societies that place relatively greater importance on reciprocity. Some researchers have argued that these gifts positively influence patient-physicians relations.[5]

- **The "underfunding" model links the occurrence and the amounts paid informally to a lack of resources in the health care system.** Across Central and Eastern Europe, the transition from a planned to a market economy brought real declines in government health spending.[6] Oversized and overstaffed hospitals became a burden on government budgets and in many transition countries allocations for health are still low. The lack of resources for equipment, medication and staff, could be motivating hospital administrative and medical staff to elicit informal

[5] See for example Balabanova and McKee, 2002.
[6] Lewis 2000; Ensor 1997; World Bank 1996; Ensor and Savelyeva 1998; Balabanova and McKee, 2005.

payments.[7] In these settings, patients often pay informally to "jump the queue", or to receive higher quality services.[8]

- **The "weak governance" model links informal payments to a lack of effective control and accountability in the health sector**. Missing or ineffective structures for monitoring service provision and holding providers accountable create an environment that can encourage malfeasance among medical staff. In the absence of effective regulatory and control mechanisms medical professionals can use their superior information and bargaining power to increase their earnings. Indeed, if informal payments total to an amount much greater than a nurse or physician's salary, it becomes difficult to consider these solely as "cost contributions" or a coping strategy to make up for underfunding from formal sources (Ensor, 2004).[9].

16. **While the academic literature remains undecided whether informal payments are more a reflection of social norms, resource shortages, or weak governance, Albanian's have clear views on the subject**. Among respondents to the 2008 LSMS, 85 to 91 percent agreed or strongly agreed that informal payments should be eliminated and health staff should be penalized for requesting payments and gifts. There is a higher incidence (two times higher) and higher amounts of informal payments for inpatient services than for outpatient services (reported informal payments for inpatient services can be three to five times higher per day hospitalized). The higher incidence and the amount of "gifts" for inpatient services could reflect deeper gratitude given the greater severity of health problems treated in hospital than in out-patient care. However, the amounts paid are high relative to the average wage in the country, and bear little relation to the economic means of the "giver". In fact, for both inpatient and outpatient services, patients from households in the lower quintiles are more likely to make informal payments and also to pay higher amounts.

17. **Resource scarcity -underfunded facilities; lack of materials; and underpaid staff- are likely to be important drivers of informal payments.** Where informal payments follow a "fee-for-service" pattern they could be helping to close the gap created by lack of resources from formal channels - such as allocations from the government's budget, or co-payments that have been set too low. However, supporting evidence for the underfunding explanation that can be drawn from the LSMS data is mixed. Patients from mountainous areas and from Tirana generally pay lower amounts in informal payments -both for outpatient and inpatient services- than do those living in central or coastal areas. This finding is supportive of the underfunding hypothesis, as Tirana has the highest concentration of resources (for example of hospital beds, at 401 per 100,000 inhabitants, as compared to the national average of 303 per 100,000 inhabitants). However, these resources are mostly concentrated in tertiary care hospitals treating people from different regions. In 2003 the number of inhabitants per PHC facility in Tirana was 3005, much higher than the national average of 1440. So even though they are endowed with

[7] Lewis, 2000; World Bank, 1995.
[8] Lewis, 2000; Viana et al., 2006; Liaropoulos et al., 2008; Ensor, 2004; Balabanova and McKee, 2005, Belli et al., 2001.
[9] See Gaal and McKee, 2005, Ensor and Witter, 2001; Lewis, 2002, Miller et al,, 2000; Thompson and Xavier, 2002.

more resources, these are far more intensively used, giving rise at times to scarcity and rationing comparable to other parts of the country. Furthermore, medical staff are typically paid less in Tirana than those working in mountainous areas, where higher formal remuneration is given to compensate for their rural assignments. The differences in the incidence and amounts paid informally across regions could also simply reflect local conditions: mountainous areas have the highest poverty rates in the country.

18. **People in the poorest households are more likely pay informally for health care than those with greater information and means to hold providers accountable.** Households in the lowest consumption quintiles bear the heaviest cost in informal payments for health services. These groups are more likely to make informal payments and also to pay higher amounts both in absolute terms and relative to their total consumption expenditure. Since people in these groups are more likely to lack information, and are less likely to have access to mechanisms with which to hold service providers accountable, the pattern of informal payments appears to indicate that weak governance could be significantly contributing to the problem.

19. **Tracking the incidence and magnitude of informal payments over time, although underfunding is a problem, the persistence of informal payments for the poorest suggests weak governance may also be important.** In the last section of this report, the data from the 2002, 2005, and 2008 waves of the Albania LSMS are pooled and examined using statistical matching techniques that allow an examination of the individual characteristics of people who make informal payments for health services and how these have changed in recent years. The findings suggest that although scarcity of resources in the health system is a contributing factor, weak governance is likely also to be contributing to the prevalence of informal payments Albania's health sector.

Part II. Albania's Health Sector: Structure, Image and Household Experience

2.a. Albania's Health Sector

20. The health care system in Albania has its roots in the Soviet "Semashko" model, and has suffered from many of the same problems that affect health service delivery other Central and Eastern European countries, such as over-supply of facilities and medical doctors, low wages and overly high rates of specialization (Healy and McKee, 1997; Lewis, 2002). Under the planned economies, the health sector was underfinanced as a "non-productive sector" (Nuri and Tragakes, 2002). The funds allocated for investments in health technology were historically low. The Government's priority in health was to provide universal access to primary and secondary care. This policy led to the construction of a large network of health posts or health care centres, and a relatively large number of local and regional hospitals, which were typically overstaffed and relied mostly on outdated equipment.

21. The reforms to the health sector that followed immediately after the fall of the communist regime focused mostly on reorganizing responsibilities over health care centres. During the 1990s some administrative responsibilities and ownership of many primary health care facilities were shifted to the local level. However, human resource policies and financing for hospitals remains centralized. Presently, most care centres and clinics are owned by local governments while only hospitals remain owned by the Ministry of Health (MoH).[10] The Primary Health Care (PHC) policy developed by the Government in 1997 (World Bank, 2005) aimed to maintain a health post and a health centre per commune. Outpatient care is delivered mainly through these PHC facilities but also at polyclinics in urban areas. The main reform measures in PHC have sought to transfer the financing of the sector to a Health Insurance Institute (HII). Recurrent expenditures and wages of medical staff are now financed directly through the HII.

22. Albania spent around 6.8 per cent of its GDP on health in 2008, the last year covered by the analysis in this report. This level of spending is comparable to other countries in the region (see Figure 1), however, only half of this amount is publicly financed. The share of out-of-pocket expenditures remains high in Albania when compared to similar countries (Figure 9). For households in the lowest quintile the share of out of pocket spending on health is as high as 50 per cent of the total monthly per capita expenditure per one episode. Such high levels of out-of-pocket spending for health services can create barriers to access and, in some cases, prevent people moving out of poverty.

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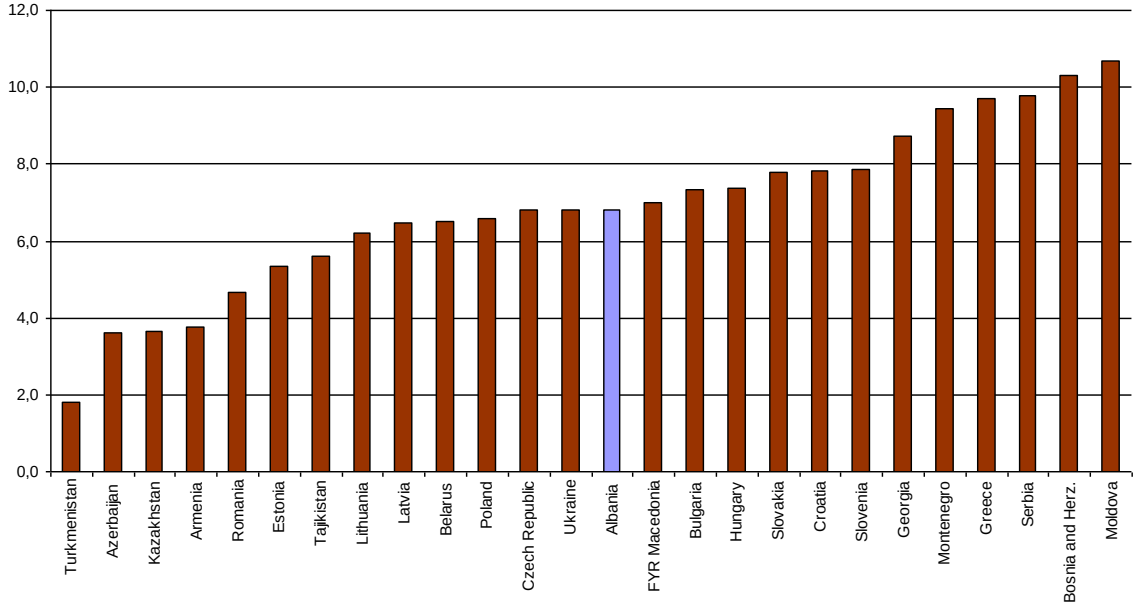
[10] Hospitals are still primarily public. The MoH is the owner and administrator of all hospitals In 2008, there were 41 operative hospitals, of which: 4 university hospitals in Tirana, 11 regional hospitals, and 22 district hospitals (MoH, 2009). Interventions in the hospital network have mainly sought to improve the infrastructure of the sector and during 2002-2008 period of analysis little happened in terms of reforming the provider financing.

Figure 1. Health Spending as a Percentage of GDP in 2008, Albania and Comparator Countries

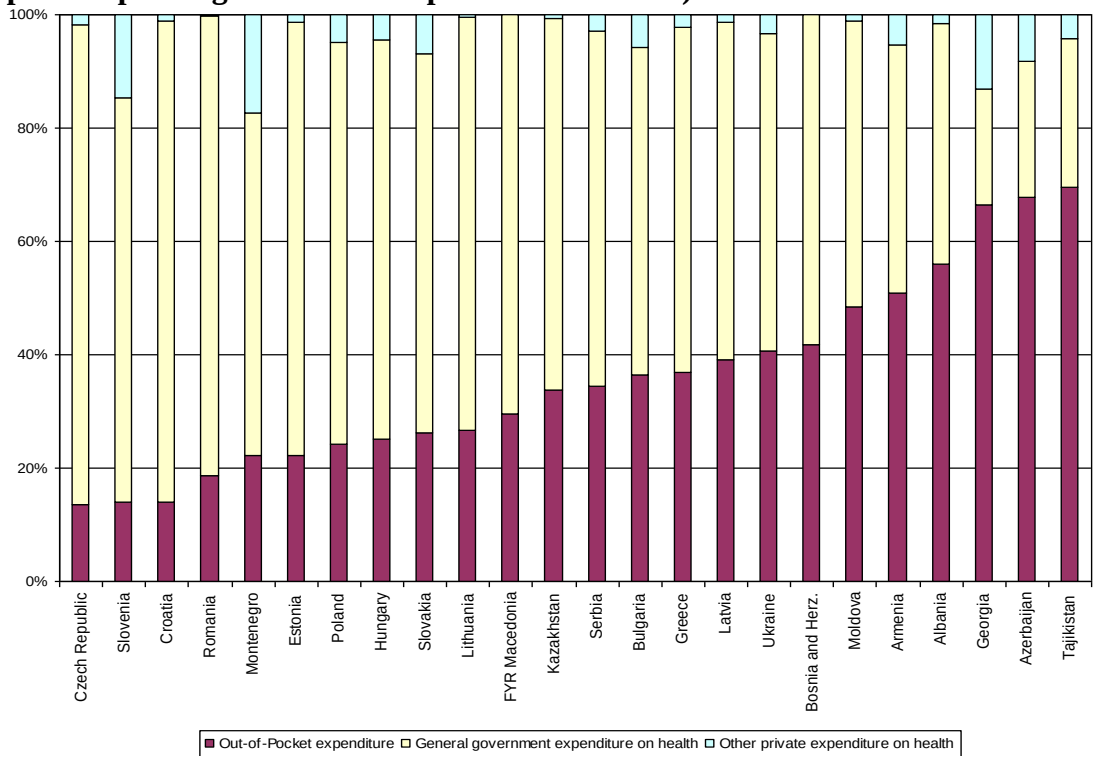


Source: WHO database

23. Public health spending is financed with social health insurance contributions and general tax revenues. But given the prevalence of informal employment relationships in the Albanian economy, only about a third of the active labor force contributes to health insurance.[11] The Health Insurance Institute is responsible for contracting health services with PHCs and also selected services from hospitals. Although the funding of PHC is done through the HII, most of the funds (almost two thirds of the total budget) still come from the state budget. Funding for hospitals in 2008 was still channelled through the MoH.

[11] Public health expenditures are financed by social health insurance contributions and revenues from tax collections. The health insurance contributions are collected by the tax authority and amount to 3.4 per cent of the gross salaries of formally employed individuals.

Figure 2. Health Spending by Source in 2008, Albania and Selected Countries (Out of pocket spending is the darkest portion of the bars)



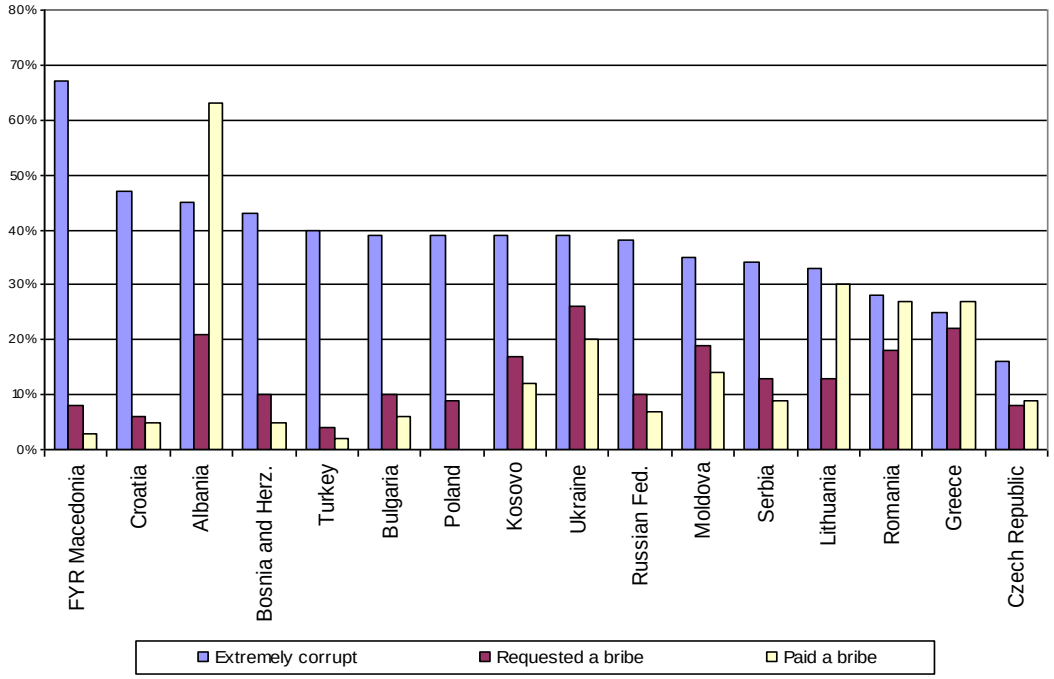
Source: WHO database

24. Health insurance in Albania should cover most of the formal costs of primary health care and all the costs of hospital care. Patients are formally required to pay small, fixed co-payments per visit in PHC or for specialized treatments in hospital care, but until 2008 the amounts required were still very low. Despite the fact that the law states that all the citizens[12] should be covered by health insurance, surveys show that only about 40-45 per cent of the population report having a booklet showing they are covered (World Bank, 2006). Moreover, there are significant disparities in coverage across regions of Albania (e.g. only 20 per cent of the population in mountainous areas is covered).

25. The most prominent issue among households when it comes to health services is that of high informal payments (see also Figure 3). Informal payments are the manifestation of weak governance that Albanians experience on a frequent basis. The problem is recognized in the National Health Sector Strategy (2004) as widespread both in inpatient and outpatient health care. The World Bank's Albania Health Sector Review (2005) shows that informal payments constituted almost one quarter of total costs paid in inpatient services and are also consistently high in outpatient services.

[12] Apart from people paying health insurance through formal employment (or self declarations), the law provides coverage also for other groups like; children below age one, unemployed, social assistance recipients, soldiers, students, pensioners and war veterans, pregnant women, and other vulnerable categories.

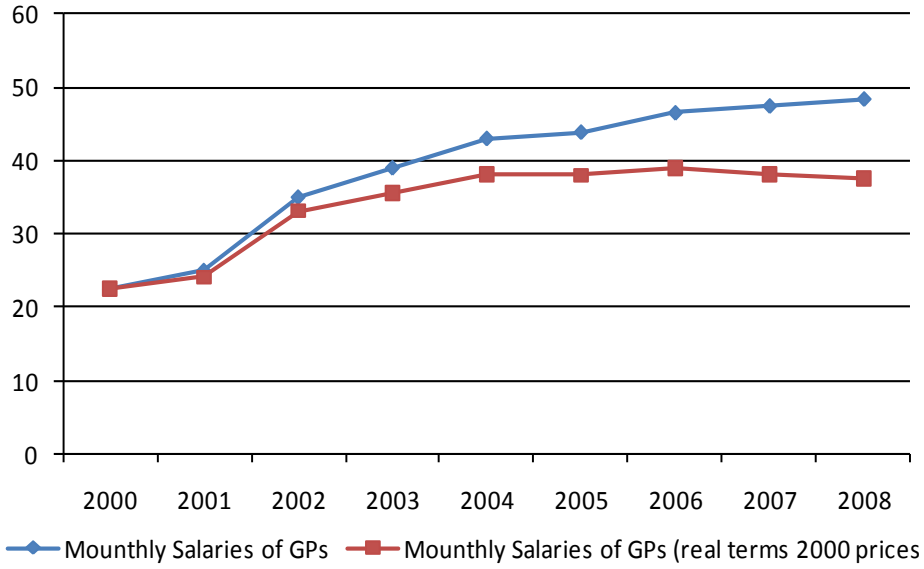
Figure 3. Reported Corruption and Bribes in the Health Sector in 2008 in Albania and Comparator Countries



Source: Transparency International, 2008

26. Reforms in the health sector from 2002-2008 focussed on primary health care and outpatient services, consolidating the financing of the PHC through HII (but limited mainly in the salaries of GPs) and transferring PHC capital investments to local governments. Up to 2008, little had been done to reform inpatient care, although contracting of inpatient services through HII was implemented in 2009-2010. Total health financing channeled through HII is steadily increasing.

Figure 4. Monthly Salaries of GPs (in 000 Leks)



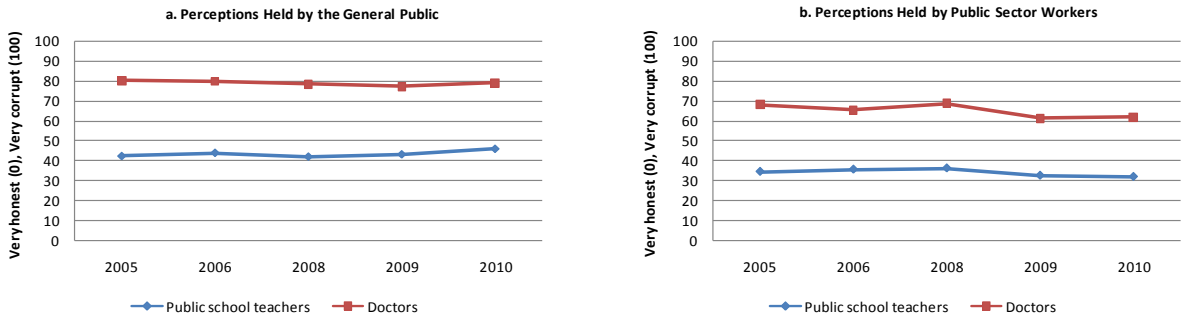
Source: Team's estimates based on World Bank (2006) and HII

27. The measure many specialist believe is most likely to lower people's experience of informal payments in the health sector, has been the increase in the salaries of medical staff. Between 2002 and 2005, the increase mainly benefited GPs (paid through the HII), and the average salary level of GPs increased between 2000 and 2008 both in nominal value and real terms. Salaries of medical staff in the inpatient health sector have also risen over the same period and especially since 2005. However, the average wage of medical specialists in hospitals still remains below the average wage of the medical staff in PHCs.

2.b. Household Perceptions of Governance & Informal Payments

28. Among Albania's public institutions, health institutions rank significantly low in public perceptions governance. On a scale of 0 to 100, where 0 is very honest and 100 is very corrupt, the public gave an average score of 62.4 to 20 institutions and groups in a survey collected by the Institute for Development Research Alternatives (IDRA) in the first quarter of 2010, indicating high levels of perceived corruption (IDRA, 2010). Religious leaders were perceived as the most honest with a score of 30, and customs officials were the most corrupt with a score of 84. In Figure 5 the corresponding scores for health institutions are presented next to those for education institutions as a benchmark, given the similar importance of education to families. Medical doctors and teachers lie in between two extremes, but on very different ends of the spectrum. Teachers scored 46, while medical doctors scored 79 in the IDRA survey of perceptions. These perceptions vary between respondents who work in the public sector and those in the general population. However, they have remained fairly stable in the five years these surveys have been conducted.

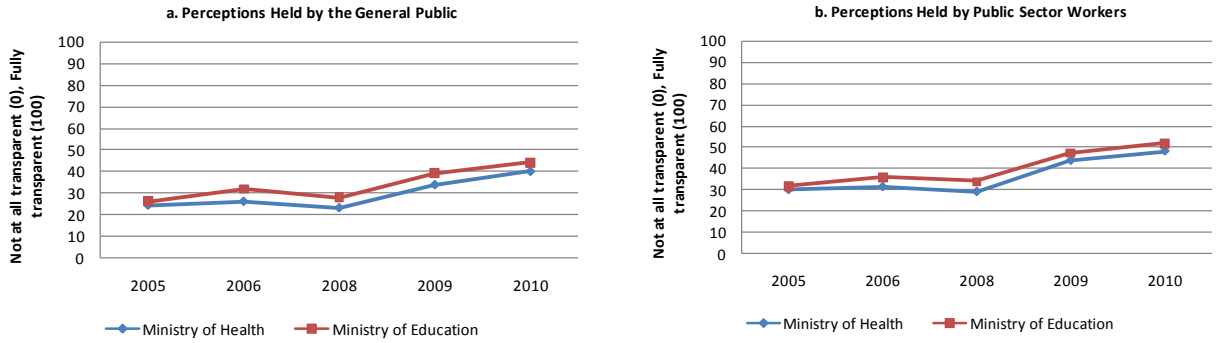
Figure 5. Are Medical Doctors and Teachers Honest or Corrupt?



Source: Institute for Development Research Alternatives

29. Consistent with improvements in governance in public administration generally, perceptions of the government agencies charged with managing health and education services have also improved. A transparency indicator, also calculated by IDRA, measures perceived transparency, where 0 is not at all transparent and 100 is fully transparent. The average score for public institutions was 38.7. The Ministry of Education and Science (MoES) scored above the average with 44, and the Ministry of Health (MoH) scored 40. In both cases, there has been a significant improvement in perceived transparency since 2005 (Figure 6).

Figure 6. How Transparent are the Ministry of Health Compared to the Ministry of Education and Science?



Source: Institute for Development Research Alternatives

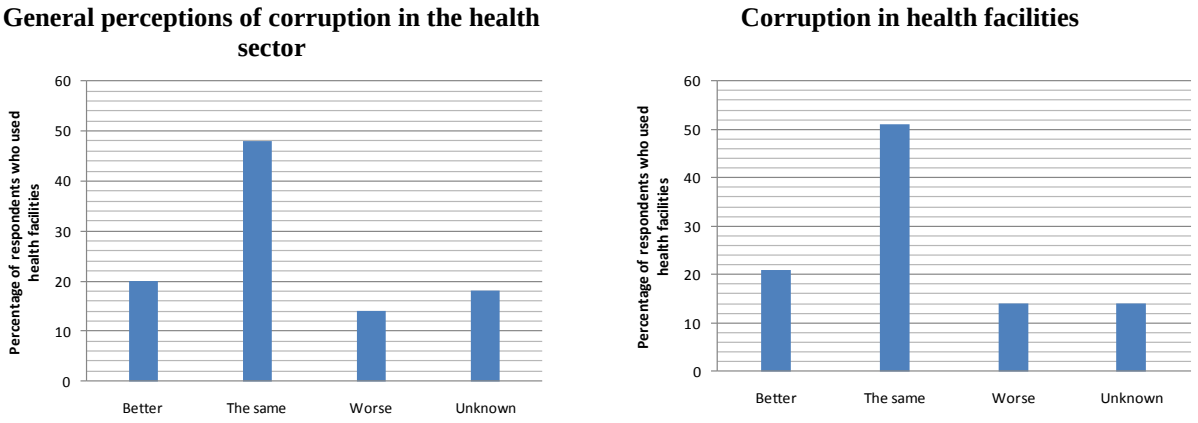
30. In contrast with the education sector, there have been no specific reform initiatives directly aimed at improving governance in the health sector, other than the increase in salaries of medical staff. Motivated by concern for the prevalence of informal payments in the sector, a special Health Governance and Accountability module was added to the 2008 wave of the Albania LSMS. Starting with questions about how respondents perceive "corruption" to have changed in the three year period prior to the survey[13] (examples such as informal payments, other bribery, collusive practices in procurement, etc. were included in the question), there is strongly significant variation across groups of different consumption levels; according to what type of health facility they visited; and where in the country they live.

[13] "In your opinion, how has the situation of corruption in the health sector changed in the last three years?"

31. Most of the significant variation in responses across consumption groups indicates little had changed in people's perceptions. Indeed, 11 percent of respondents from households in consumption quintile three indicated that the prevalence of informal payments had worsened. This dismal pattern in people's perceptions is even more notable in the significant variation in responses across different health facilities, with the largest share or respondents who indicate a change, reporting a worsening of conditions in private hospitals. However, the most significant variation is in responses across Albania's regions. The largest number of people who report improvements live in the Coastal region, but even there the majority report the prevalence of informal payments is the same or has gotten worse. In the Central region, more people report the situation getting better; in the Mountain region there are slightly fewer who report an improvement than those who report a worsening; but in Tirana substantially more of those who report that the situation has changed, say the prevalence of informal payments in the health sector has gotten worse.

Figure 7. Household Perceptions of Changes in Informal Payments from 2005 to 2008

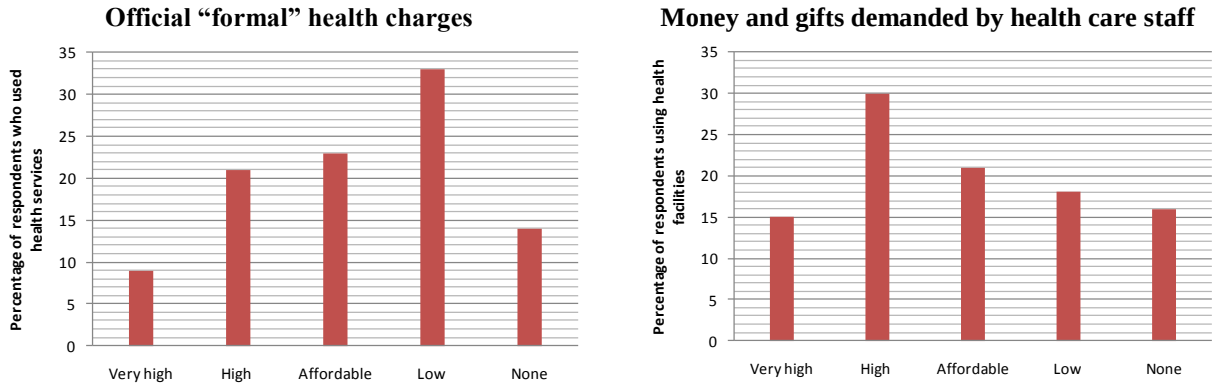
"In your opinion, how has the situation of corruption in the health sector changed in the last three years?"



Source: Team estimates using LSMS 2008

32. Compared to formally-defined and listed user fees/copayments, respondents clearly consider the costs they have to pay informally for health services to be high: 45 percent of respondents consider informal payments (including "gifts") to be "high" and "very high", while only 30 percent consider formally defined user fees to be high and very high. The largest group among those who consider costs to be high and very high, receive care from public polyclinics: while 37 percent think formal user fees are high and very high, 48 percent think that informal payments are high and very high.

Figure 8. Household Perceptions of Formal and Informal Out of Pocket Health Care Costs in 2008



Source: Team estimates using LSMS 2008

33. As discussed previously, there is debate among specialists whether informal payments for health services in developing and transition countries are more a reflection of social-cultural norms (gift giving out of gratitude for professional services, in what are relatively more homogenous and cohesive societies, that are strongly reliant on reciprocity); resource scarcity (underfunding of facilities and underpayment of medical doctors); or weak governance made more prevalent by absent of poorly functioning monitoring and accountability structures. This is an active debate even among researchers who focus narrowly on the Western Balkans and Albania in particular. However, most people who responded to the Albania LSMS have clear and unambiguous views about informal payments. No matter what their position in the distribution of respondents by consumption, 85 to 91 percent of those surveyed agreed or strongly agreed that informal payments should be eliminated and health staff should be penalized for requesting payments and gifts.

Table 1. Opinions About Informal Payments and How to Solve the Problem

"Which one of the following statements do you agree with in terms of unofficial, private out-of-pocket fees paid at health facilities in Albania?"

	Strongly agree	Agree	Disagree	Strongly disagree	Neither agree nor disagree
"Private fees must be eliminated and doctors/health care staff should be penalized for requesting such fees"					
	54	38	3	2	3
"The Government should increase salaries of health care staff and private fees will automatically be reduced"					
	31	50	12	3	4
"Unofficial private fees should be made official and publicly announced"					
	21	29	24	19	8

Source: Team estimates using LSMS 2008

34. There is greater difference of opinion as to what can be done to solve the problem of informal payments. Some respondents support increasing the salaries of health care staff as a way to reduce the likelihood they will ask for informal payment. Among the responses, there are

also indications of demand for the greater certainty that would come from making informal fees official and providing people with prior information about what the health services will actually cost them. The health sector authorities have made this information available in health centers and hospitals in the months since the survey was collected. However, the deployment of this measure was not done in a randomized manner that would easily allow evaluation of its impact.

2.c. From Perceptions to Experience of Informal Payments

35. Shifting away from perceptions to households' reported experience seeking health services, although the incidence of the informal payments remained high between 2002 and 2008, contrary to Albanians' general perceptions of "corruption" in the health sector, the reported incidence of informal payments actually declined along with out of pocket payments generally. However, the prevalence of informal payments differed significantly between outpatient and inpatient services. Informal payments were more limited in outpatient than in inpatient care: 28.1 per cent of outpatients made informal payments in 2002, and 19 percent made informal payments in 2008. For inpatient services the corresponding numbers are 59.7 per cent in 2002 and 43.9 per cent in 2008.

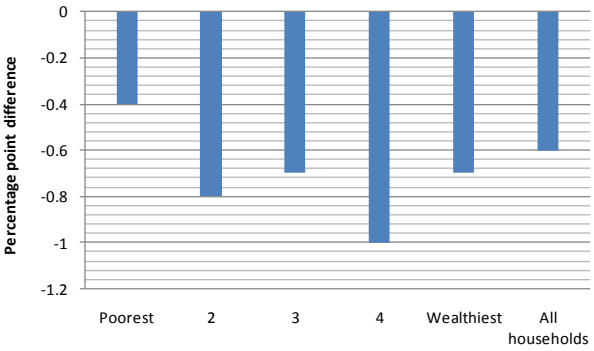
36. Informal payments were widespread across households in different quintiles of consumption. Although there was a general decrease in reported informal payments in the period from 2005 to 2008, their incidence declined less among the poorest households. In fact for outpatient services from 2005 and 2008 respondents in the poorest quintile report the highest incidence of making informal payments. The same holds, although to a lesser extent, for inpatient services.

Figure 9. Change in Reported Payment of Informal Gifts to Medical Staff, 2002-2008, by Quintile of Household Consumption

a. Outpatient health care (per visit)

Mean of the amount paid informally per outpatient visit

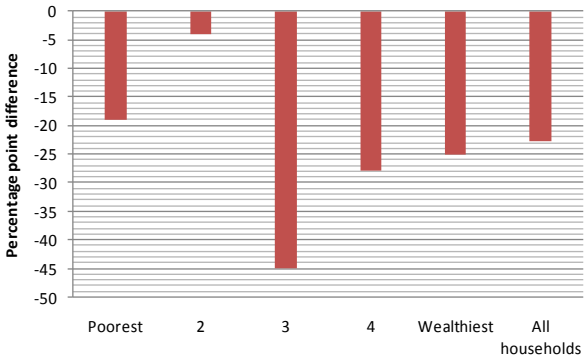
Mean of the amount paid informally per outpatient visit as share of per-capita household consumption



b. Inpatient health care service (per day hospitalized)

The mean of the amount paid informally per inpatient admission

The mean of the amount paid informally per inpatient admission as share of per-capita household consumption



Source: Team estimates using LSMS 2008

37. The average amounts paid informally for inpatient care per day, were higher than those paid for outpatient care per visit). Although there was a decline in real terms in the average amount paid informally for outpatient services, this was accompanied by an increase in the amount of informal payments for inpatient services between 2002 and 2005, which was followed by only a slight decrease between 2005 and 2008. As with the incidence of informal payments, people in poorer consumption quintiles bore the heaviest burden: in 2008 households in the poorest quintile (for outpatient services) and the second poorest quintile (for inpatient services), made informal payments that were higher than the average amount and also higher than the informal payments made by households in all other quintiles.

Part III. The Impoverishing Effects of Health Costs, Formal and Informal

38. In health economics there isn't yet a uniformly applied threshold of out-of-pocket spending above which costs are considered "catastrophic". Household spending on health care is treated as catastrophic if it exceeds some fraction of household incomes or total expenditures, usually measured over a year (Berki, 1986; Russell, 2004; Wagstaff and Doorslaer, 2003; Xu et al., 2003). Concern rises when households spend a large enough fraction of their budget on health care as to deprive the consumption of other goods and services. This concern grows when households exhaust precautionary savings, and are forced to sell assets, or take loans (O'Donnell et al., 2005). Concern for the amount of out-of-pocket spending becomes acute when it forces households to divest from human capital (for example, by delaying or stopping educational attainment, and in the extreme, constraining food consumption). Because uninsured health care events can lead to a loss of incomes from reduced labour supply or lower productivity, households can suffer long-term consequences pushing them into a "trans-generational cycle" of poverty (Baeza and Packard, 2006).

39. To be fully appreciated, the impact of informal payments has to be set in a context of the impact that all out-of-pocket health spending has on households. Previous analytical work on out-of-pocket spending in Albania and other countries in the Western Balkans shows that "catastrophic" out-of-pocket payments are common (Bredenkamp et al., 2008). In this section of the report, the analysis is extended using the last three waves of the Albania LSMS.

Table 2. Average Per Capita Expenditures on Health and Non-Health Items

	Per capita gross consumption (health payment inc)	Per capita health expenditures on formal payments	Per capita informal payments in public health care services	Per capita health expenditures on transport	Per capita total expenditures in private health sector	Overall per capita health expenditures	Per capita net consumption (health payments exc)
				Year 2002			
Lowest quintile	4296.69	475.14	121.17	101.82	144.49	493.94	3802.75
2	6230.03	659.04	165.96	188.14	183.04	653.82	5576.20
3	7915.78	591.48	177.93	128.94	265.70	698.51	7217.28
4	10317.47	777.19	229.42	248.82	236.42	780.42	9537.05
Highest quintile	18077.7	1041.31	318.72	286.27	471.78	1071.82	17005.89
Total	11092.29	767.10	220.98	193.93	298.44	808.30	10284.00
				Year 2005			
Lowest quintile	4394.93	496.82	152.64	104.60	157.97	519.44	3875.50
2	6446.95	639.36	278.78	128.55	179.59	617.97	5828.98
3	8698.88	749.24	267.69	127.79	271.39	763.44	7935.44
4	11147.78	753.25	252.24	141.84	264.33	708.37	10439.42
Highest quintile	19054.34	1041.77	348.80	202.30	381.92	902.40	18151.94
Total	10801.00	748.55	256.89	136.39	267.80	723.05	10077.95
				Year 2008			

Lowest quintile	5438.88	865.67	777.96	182.29	203.18	849.31	4589.57
2	7655.03	1039.79	208.58	150.78	327.82	866.62	6788.40
3	9520.95	972.28	230.17	186.80	307.83	769.02	8751.93
4	12837.11	1494.32	426.61	288.23	727.13	1463.46	11373.65
Highest quintile	21422.69	1797.93	336.94	236.36	658.98	1520.30	19902.39
Total	11923.66	1269.22	384.54	208.19	473.96	1125.65	10798.01

Note: Expenditures are given as averages for each of the categories only for those households which have actually spent for that particular category.
Per capita health expenditures on formal payments include out-of-pocket expenditures on medical fees, laboratory works and drugs purchased in public outpatient and inpatient services (expenditures incurred in hospitals outside from Albania are omitted in the table).
Informal payments in health care include gifts paid to medical staff in public outpatient and inpatient services.
Expenditures in private sector include out-of-pocket expenditures on medical fees, laboratory works, drugs purchased and gifts to medical staff in private services.

40. Average per capita spending on health and how this has changed from 2002 to 2008 (shown in 2002 lek) is shown in Table 2. The gross per capita consumption of households who reported out-of-pocket payments, increased in real value from 11,092 lek in 2002 to 11,923 lek in 2008. Total out of pocket spending for health was on average 808 lek in 2002 and increased to 1,126 lek in 2008. The same trend is observed for almost all items of spending (formal payments, informal payment, transport and expenditures on private health care providers and pharmaceutical purchases). Formal payments in the health sector increased the most over the years. Formal health payments per capita increased by about 500 lek from 2002 to 2008 (from 767 lek to 1,269 lek) while spending on health provided by the private sector increased by 175 lek over the same period (from 298 leks to 473 lek). The absolute value of informal payments per capita increased substantially over the years from 220 lek in 2002 to 384 lek in 2008, a real increase of almost 75 percent.

41. While the increase in the amount of total out-of-pocket payments in the period to 2008 seems worrying, a more worrying trend is the distribution of informal payments between households in different quintiles of consumption expenditure. The amount that a person from a household in the lowest quintiles pays informally has increased almost five times over the years (from 121 leks in 2002 to 777 leks in 2008). During the same period the increase in the amount paid informally by people in households in higher quintiles was far more moderate.

Table 3. Financing Budget Shares On Health And Non-Health Item

	Per capita consumption gross of health payments	**Per capita health expenditures on formal payments**	**Per capita informal payments in health care**	**Per capita health expenditures on transport**	**Per capita private expenditures in private sector**	**Overall per capita health expenditures**	**Per capita consumption net of payments**
				Year 2002			
Lowest quintile	0.04	0.08	0.07	0.09	0.07	0.07	0.04
2	0.08	0.16	0.12	0.19	0.10	0.14	0.07
3	0.11	0.15	0.17	0.17	0.18	0.16	0.11
4	0.20	0.22	0.24	0.26	0.19	0.22	0.20
Highest quintile	0.57	0.39	0.40	0.29	0.47	0.41	0.57

Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00
				Year 2005			
Lowest quintile	0.06	0.11	0.10	0.15	0.07	0.10	0.06
2	0.11	0.17	0.23	0.21	0.12	0.16	0.11
3	0.15	0.20	0.20	0.21	0.19	0.20	0.15
4	0.23	0.21	0.16	0.21	0.22	0.21	0.23
Highest quintile	0.45	0.31	0.32	0.22	0.40	0.33	0.46
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00
				Year 2008			
Lowest quintile	0.08	0.13	0.30	0.21	0.08	0.13	0.08
2	0.12	0.13	0.12	0.14	0.12	0.13	0.12
3	0.16	0.18	0.13	0.16	0.15	0.17	0.16
4	0.22	0.25	0.24	0.25	0.34	0.28	0.22
Highest quintile	0.42	0.31	0.20	0.24	0.30	0.30	0.43
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Note: Per capita health expenditures on formal payments include out-of-pocket expenditures on medical fees, laboratory works and drugs purchased in public outpatient and inpatient services (expenditures incurred in hospitals outside from Albania are omitted in the table).
Informal payments in health care include gifts paid to medical staff in public outpatient and inpatient services.
Expenditures in private sector include out-of-pocket expenditures on medical fees, laboratory works, drugs purchased and gifts to medical staff in private services.

42. Table 3 shows the distribution of health or non-health expenditures across households in each consumption quintile. Generally the poorest -people in households in the the lowest consumption quintile- spend much more in non-direct health costs, i.e. transportation or informal payments, when compared with other items. This category of spending has increased substantially over the years for households in the lowest quintile. In 2008 almost 30 per cent of the total amount of informal payments and 21 per cent of all transportation costs were paid by people from households in the lowest quintile. These shares have grown from 7 and 9 per cent, respectively, in 2002. In 2008 people from the poorest households faced higher out-of-pocket payments and faced greater barriers to health care than they did in 2002.

43. When total expenditure is used as the denominator the most common threshold employed in the economic literature to measure "catastrophic" spending is 10 percent – the threshold at which prior research has found households can be forced to sacrifice basic necessities (Pradhan and Prescott, 2002; Rason, 2002; Wagstaff and van Doorslaer, 2003). Table 4 presents alternative measures out-of-pocket payments for health care for each quintile of household consumption, over the three waves of the Albania LSMS. The headcount (incidence) in this table is the share of individuals for whom the proportion of out-of-pocket payments for health (shown as a percentage of total spending), exceeds a number of set thresholds, ranging from 5 per cent to 25 per cent.

44. In 2002, 22.6 per cent of the population paid out-of-pocket costs for health services that exceeded 10 per cent of their total per capita budget. Encouragingly, this incidence declined to 17.6 per cent in 2005, and further to 13.3 in 2008. 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 people from households in the lowest quintiles who paid more than 10 per cent of their total expenditures on out-of pocket payments for health services, was about 29-30 per cent in 2002 and 2005 and decreased only to 20 per cent in 2008.

Table 4. Incidence and Impact of Catastrophic Health Payments with respect to total expenditure.

CATASTROPHIC PAYMENTS MEASURES	THRESHOLD BUDGET SHARE			
	Thresh. 5%	**Thresh. 10%**	**Thresh. 15%**	**Thresh. 25%**
		Year 2002		
Headcount (H)				
Lowest 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 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 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 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 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 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

45. Table 4 also shows measures of "catastrophic overshoot" for each of the years examined. This measure represents the average extent by which payments (as a proportion of total expenditure) exceed the respective threshold. In other words it measures the intensity of catastrophic out-of-pocket payments. This measure is important as it complements the headcount measure of catastrophic payments (the incidence). The intensity of catastrophic payments drops as the threshold is raised from 5 to 25 per cent of total consumption expenditures throughout all years. As these numbers show, the average out-of-pocket amount paid as a share of total expenditures has increased sharply over the period 2005 and 2008. This reinforces the finding regarding the dramatic increase in certain categories like the formal payments and the expenditures on private health care.

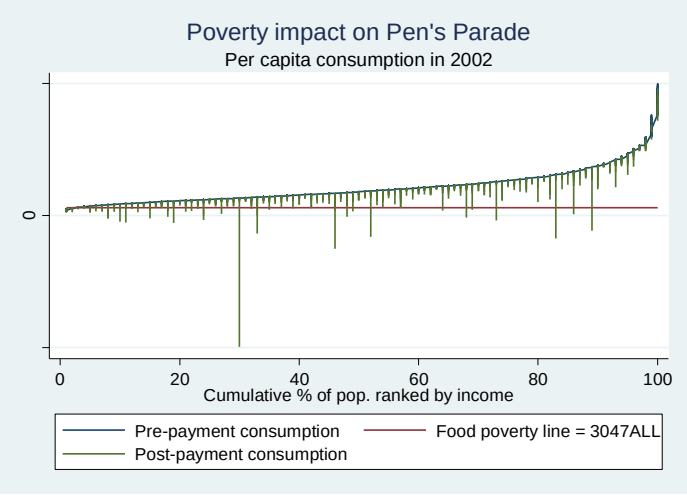
Table 5. Poverty Based on Consumption, Gross and Net of Spending on Health

	POVERTY HEADCOUNT	POVERTY GAP	NORMALISED POVERTY GAP	NORMALISED 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

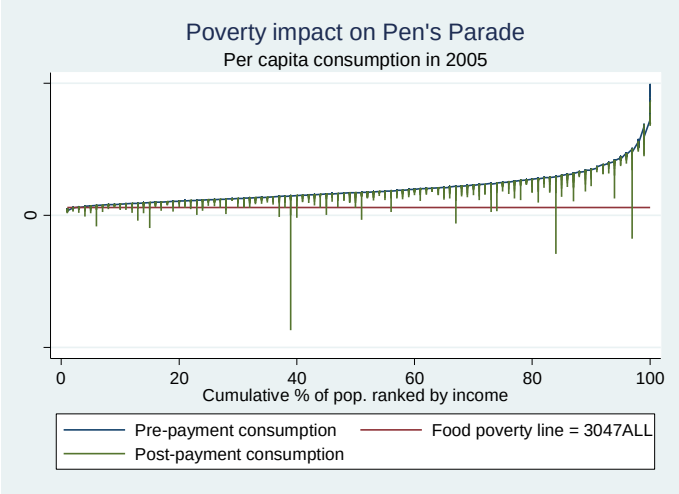
46. Table 5 shows that out-of-pocket health expenditures have increased the percentage of poor Albanian household. The poverty headcount has decreased from 2002 to 2008, but the post-health payment poverty headcounts are much higher if out-of-pocket spending for health care is taken into account. Poverty increases by 6.49 percentage points in 2002, by 5.23 in 2005 and by 1.69 in 2008. The poverty gap also increases when out-of-pocket spending for health is accounted for.

47. The catastrophic impact that out-of pocket expenditures have on households is illustrated in Figure 10. The graphs show the impact of out-of-pocket spending pre and post expenditure per capita, and comparing it with the food poverty line (the horizontal line representing amounts 3,047 lek per capita). Out-of-pocket expenditures for health services can drive individuals into poverty. This is true not only for the lowest quintiles but also for all the others.

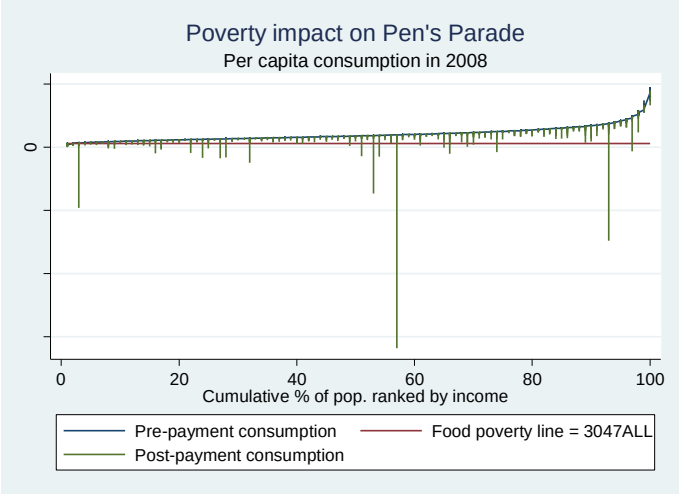
Figure 10. Poverty Impact of Out of Pocket Payments for Health Services



Year 2002



Year 2005



Year 2008

Part IV. The Determinants of Informal Payments in Albania's Health System

48. The theoretical framework and hypotheses presented in this report are based on models that seek to explain the occurrence and extent of informal payments to medical staff. Three possibly overlapping explanations have been presented in the literature: social-cultural norms, underfunding, and weak governance, following Gaal and McKee (2005) and Tomini and Maarse (2009). It is difficult to conclusively distinguish between these explanations for informal payments. Table 6 presents what researchers trying to examine the relative importance of each explanation for informal payments might observe.

Table 6. Explanations for Informal Payments and Related Observations

MODEL	PRESUMED CAUSAL FACTORS	OBSERVATIONS
1. Social-cultural norms	1. Culture of gratitude & gifts in cohesive societies that place greater relative importance on reciprocity.	1. In kind and money gifts are paid to medical staff usually after services are received. 2. Patients report that gifts to medical staff are voluntary. 3. A relatively moderate incidence of such gifts, usually of modest value.
2. Underfunding	1. Demand-side factors - free heath care access 2. Supply side factors - Inadequate funding - Low salaries of health care staff. - Investments oriented more towards access rather than quality of services.	1. Unequal amounts paid for inpatient and outpatient health services. 2. Gifts resemble a 'fee for service' model (patients use informal payments as top up or to receive better quality services). 3. Being covered by health insurance will lower the probability of paying informally.
3. Weak governance	1. Lack of monitoring and accountability. 2. Weak rule of law and low probability of sanction if malfeasance is detected.	1. High incidence of explicitly requested payments. 2. Probability of paying informally is greater the less knowledge and bargaining power held by the patients. 3. Low numbers of prosecuted cases of corrupt medical staff.

Source: Adapted from "Tomini, S., and Maarse H. (2009). How do patient characteristics influence informal payments for inpatient and outpatient health care in Albania: Results of OLS and probit models using Albanian LSMS 2005"

49. The last part of this report presents the results of more in depth statistical analysis of individual determinants of the amount paid informally to medical staff, and the average treatment effects for individual variables between those who pay and those who do not, over the period 2002 to 2008. The estimation procedure followed and full estimation details are provided in Appendix Two.

4.a. Determinants of Informal Payments for Outpatient Services

50. Results for outpatient health care services are presented in Table A2.3 of Appendix 2. [14]

51. The incidence of informal payments has decreased over the period of analysis, however a there is a less clear trend in the amount of informal payments. . They increased significantly between 2002 and 2005, and decreased slightly between 2005 and 2008 (though the effect is not statistically significant). Residents of coastal areas are more likely to pay compared to the residents of central areas, while residents of mountainous areas are less likely to pay.

52. Older and single people pay higher informal payments, which could reflect their higher predisposition of getting ill (typically, older people have a higher demand for health care, see Grossman, 1972), or higher incomes. Being covered by health insurance has a statistically significant and negative effect on the incidence of informal payments and the effect is highly significant in both models. Nuclear families without children (including only the head and spouse) generally pay higher amounts than extended families or other families with children, suggesting again a possible link between perceived higher income and amounts paid informally. Medical staff may not have information about the consumption level of the people they treat, but they may use certain characteristics as "proxies" for the affordability of such payments. Tomini et al., (2009) show that medical providers have information on the patient's willingness to pay and that they may use it to impose higher amounts of informal payments than what would generally be expected. What is surprising is that there are not significant differences between patients from households in the upper and lower quintiles if compared to those in the middle quintile (almost all coefficients are not statistically significant).

53. Examining like-groups over time (see Table A2.4 and Table A2.5 in Appendix 2), there was a decrease in the amount paid informally between 2002 and 2005, followed by an increase in the amount of informal payments between 2005 and 2008 (though not statistically significant). The intended or unintended effect of structural reforms to the health sector during this period on informal payments (financing health services and wages directly from the health insurance institute, and increasing the wages of GPs) may have been greater in the earlier part of the period. The most significant changes in the characteristics associated with making informal payments for out-patient services, took place between 2002 and 2005. Changes are less clear between 2005 and 2008.

54. The share of people in the highest quintile who made informal payments fell between 2002-2005 and 2005-2008. However, the opposite happened for the share of people in quintiles 1 or 2 who made informal payments. The share making informal payments from quintile 1 initially fell (though the difference is not statistically significant) and then rose significantly between 2005 and 2008. The overall trend 2002-2008 is an increase in incidence for people from all the consumption quintiles, except those in the highest quintile.

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[14] The results for the effect of individual characteristics on the amount paid (expressed as the natural logarithm) are compared between two models (the left-censored tobit and the Heckman selection model). Most results are consistent regardless of the model used, but the selection model gives a better overview of the separate effects on the incidence and amount paid informally over the years.

55. The share of patients paying informally over the years in each region does not follow a clear pattern. Residents of the coastal region and of Tirana were less likely to pay in 2008 when compared to 2002, but the residents all other regions were more likely to pay. In mountainous areas, residents were less likely to pay in 2002-2005, but more likely to pay between 2005-2008.

56. Another interesting observation is the effect of health insurance coverage on the likelihood of making informal payments. Between 2002 and 2005 people without insurance were less likely to make informal payments, while people with normal health insurance were more likely to pay. The overall effect between 2002-2008 shows a decline in the likelihood of paying among individuals covered by health insurance, but the difference is not statistically significant. Perversely, in a system with weak monitoring and accountability structures, being covered by health insurance could increase the likelihood of individuals making informal payments simply by lowering some of the barriers that would dissuade similar uninsured people from even seeking services in the first place.

4.b. Determinants of Informal Payments for Inpatient Services

57. Table A2.6, A2.7 and A2.8 In Appendix 2 shows the results for tobit and selection models for the amount paid as informal gift to medical staff in inpatient services. Again, the models can show the differences that exist depending in the factors associated with incidence of informal payments and the amount paid informally (expressed here as the natural logarithm). The characteristics associated with the amount paid here are less clear (fewer variables appear statistically significant) which could be interpreted as confirmation that informal payments for inpatient services are far more prevalent than in the outpatient services.

58. The results show that the incidence of informal payments paid for inpatient services has decreased between during both periods 2002-2005, and 2005-2008 (though only the later change is statistically significant). Similarly to payments for outpatient services, the amount paid informally does not necessarily follow the same pattern. The results show that the amounts paid informally have increased significantly. Residents of coastal areas were more likely to pay and also to pay higher amounts when compared to the residents of central areas. Residents of mountainous areas (and Tirana) were less likely to pay and paid smaller amounts. This finding is similar to the regional patterns of informal payments for outpatient services and may again relate to the poverty levels in these areas (as discussed previously).

59. People with chronic illnesses pay lower amounts informally, which may reflect that those who know how the system works (and how much the medical staff "request") can better estimate the amount requested by the physicians, and may even be in a better (more informed) bargaining position (see also Tomini et al 2009). Health insurance reduces the propensity of paying informally for inpatient services (if compared to having no insurance). In contrast to informal payments for outpatient services, here the lowest quintile is less likely to pay and paid lower amounts informally (although the effects is not statistically significant). The results again confirm greater prevalence/ubiquity of these payments for those seeking inpatient services, compared to outpatient services.

60. The matching findings for like-patients reported in Table A2., show that the amounts paid informally for inpatient services over the period of analysis is similar to the results for outpatient

services. There was a fall in the amount paid informally for inpatient services between 2002 and 2005, but this was followed by an increase in the amount of informal payments between 2005 and 2008 (though not statistically significant if Kernel matching is used). This change makes the overall effect between 2002 and 2008 positive but statistically not significant. Again, it appears as if there were more incentives to reduce informal payments between 2002 and 2005, than there were between 2005 and 2008.

61. Few of the individual characteristics that are significantly associated with the likelihood of making informal payments for inpatient services changed over the period of analysis. The residents of rural areas were more likely to make informal payments for inpatient services in 2008 than were urban residents. People living in Tirana were also less likely to make informal payments. Older people were less likely to pay, particularly between 2005-2008. The pattern of change in the likelihood of making informal payments for inpatient services again disfavours people from the poorest households. People from households in the lowest quintiles are more likely to pay in 2008 when compared to 2002 (the effect significant for people in quintile 1) and the highest quintiles are less likely to pay (though the effect is not significant).

4.c. Insights for Policy Makers

62. Does the prevalence of informal payments in Albania's health sector reflect social-cultural norms? This explanation is the least supported in the data. A higher incidence (two times higher) and higher amounts (three to five times higher per day hospitalized) of informal payments are observed for inpatient than for outpatient services. The amounts of these informal payments are considerable when compared to average wages in the country and moreover not directly linked to the economic status of the giver. For both inpatient and for outpatient services, people from households in the lower quintiles of consumption are at times more likely to give and also give higher amounts of informal payments.

63. Do informal payments reflect resource shortages in the health sector? The evidence supporting this explanation is mixed. Patients from mountainous areas and Tirana pay generally lower amounts (for both outpatient and inpatient services) than people from the central or coastal areas. Supporting the "underfunding" explanation, Tirana is relatively "resource rich", with the highest concentration of hospital beds (401 per 100000 inhabitants, as compared to the national average of 303 per 100000 inhabitants). However these beds are mostly located in tertiary care hospitals treating people from different regions. Thus in some important aspects, Tirana's medical infrastructure is relatively more burdened, and resource shortages and the need for rationing are greater. In 2003 the number of inhabitants per PHC facility in Tirana was 3005, much higher than the national average of 1440 (MoH, 2003). Furthermore, medical staff in Tirana are usually paid less than the those who work in the remote mountainous areas.[15] Mountainous areas compare well with the national averages (see Tables A1.1 and A1.2) and they certainly have better paid medical staff. But the differences can also be simply because of the specific conditions of such areas (mountainous areas have the highest poverty rates in the country and poverty in Tirana has increased in the last years – INSTAT 2008). Finally, one of

[15] In both outpatient and inpatient services physicians are paid better if they accept to work on mountainous areas, but anecdotic evidence shows that hospitals are understaffed and people are often addressed in the regional hospitals.

the most visible reforms in the health sector in recent years relates directly to the "underfunding" hypothesis: the increase of GPs wages has done little to reducing informal payments.

64. Does the prevalence of informal payments in the health sector reflect weaj governance in an institutional environment with absent or ineffective monitoring and accountability structures? It is reasonable to expect that in an environment with poorly functioning monitoring and accountability structures, the most vulnerable people will bear the consequences of any malfeasance of service providers. People in the lowest quintiles bear the heaviest cost of informal payments (they are often more likely to pay and also pay higher amounts both in absolute terms and relative to their total spending). This grim and persistent pattern may indicate that those who lack information, empowerment and access to mechanisms with which to hold service providers accountable continue to bear the heaviest burden imposed by informal payments to staff in Albania's health system.

65. The evidence from Albania LSMS 2002-2008 suggests that while scarcity of resources seems to be an important contributing factor, weak governance in health care are likely to be just as important. The past reforms and reorganisation of the health sector has only managed to achieve small reductions in the amounts and incidence of such payments. Empirical evidence shows that even as the wages of primary care medical staff were increased threefold over the years, informal payments remain wide spread. The poorest members of the society remain less protected against such payments.

66. For this reason, addressing only the scarcity of resources may not be sufficient to the limitation of the problem. Limited international evidence has shown that the introduction of formal fees as well as provider accountability mechanisms and other incentives to providers may limit the phenomenon. While these are certainly important steps to consider, they should be accompanied by additional measures. The experience of other countries suggest that linking the formal payments to bonus incentives for medical doctors, advertising the formal fees, etc could increase the effectiveness of the policy measures against informal gifts.

67. Encouragingly, the Government of Albania has already embarked on a process of increasing transparency in the health sector and guaranteeing access to basic care to all, in order to reduce the negative impact on households of out-of-pocket payments and informal payments in particular,. As an initial step toward this objective, the Government making changes to the health insurance system to grant coverage to all beneficiaries of the Ndihma Ekonomike, Albania's main social assistance program for poor households. As the analysis in this report shows, informal payments are partly encouraged by an unclear copayments policy, which often blurs the distinction between formal and informal payments. Informal payments are also associated with a lax definition of the type of services that health insurance should cover. Experience elsewhere has shown that it is possible to reduce informal payments when this issue is addressed as an integral part of health finance reforms of the type that Albania is undertaking. These reforms set clear limits on what public resources allocated for health can finance. Defining an explicit package of benefits in this way can help to improve equity in access and increase accountability for the services specified in the package; as patients are aware of what services they are entitled to receive and at what prices, the scope for informal payments is reduced.

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Appendix One

Descriptive Statistics

Table A.1.1. Population Catchment Area of PHC Facilities, by Region, 2003

AREA	REGIONS	NUMBER O F INHABITANTS PER PHC FACILITY			
		Health centers	Health Posts	Polyclinics	All PHC facilities
Central	Berat	5079	1021	64340	839
	Elbasan	5668	1570	90684	1213
	Gjirokastër	2686	752	37610	579
	Korcë	5765	1128	53036	927
	Shkodër	3288	3612	128237	1698
Coastal	Durrës	16345	2452	122590	2096
	Fier	8139	2161	127315	1685
	Lezhë	3061	2067	53061	1206
	Vlorë	3860	1892	96491	1253
Mountain	Dibër	4868	5753	63285	2531
	Kukës	4284	2931	37131	1663
Tirana	Tirana	7034	6101	37369	3005
Albania's average		5274	2045	62638	1440

Source: Ministry of Health

Table A.1.2. Regional Distribution of Hospitals Providing Inpatient Care in Albania, 2003

AREA	REGIONS	MOH HOSPITALS	HOSPITALS / 100000	HOSPITAL / BEDS	BEDS / 100000	TOTAL STAFF PER BED
Central	Berat	4	2.07	431	223.29	1.16
	Elbasan	6	1.65	1071	295.26	1.00
	Gjirokastër	4	3.55	372	329.7	1.23
	Korcë	4	1.51	835	314.88	1.05
	Shkodër	2	0.78	653	254.61	1.32
Coastal	Durrës	2	0.82	544	221.88	1.74
	Fier	3	0.78	678	177.23	0.82
	Lezhë	3	1.88	334	209.82	1.62
	Vlorë	6	3.11	831	430.61	1.02
Mountain	Dibër	4	2.11	518	272.84	1.18
	Kukës	3	2.69	383	343.83	1.17
Tirana	Tirana	6	1.00	2399	401.24	1.88
Albania's average		50	1.53	9049	303.6	1.27

Source: Albania Health Indicators, Ministry of Health.

Table A.1.3. Respondent's Priority for Improvement in their Health Facility

	COASTAL	CENTRAL	MOUNTAIN	TIRANA	TOTAL
Condition of the health services	0.16***	0.08***	0.08***	0.08***	0.11
Attention from the health officers	0.32**	0.27***	0.20***	0.38***	0.3
Official costs of health services	0.19***	0.22	0.22	0.29***	0.22
Money or gifts demanded	0.1	0.12***	0.09***	0.09	0.1
Availability of medicine supply and vaccine	0.15*	0.16***	0.18***	0.08***	0.14
Quality of medicine and vaccine supply	0.08***	0.13***	0.22***	0.05***	0.11
Waiting time	0.00***	0.01	0.00***	0.02***	0.01
Other	0.00***	0.01	0.01**	0.01	0.01

Stars indicate if the mean for the subgroup is significantly different from the mean for all other subgroups. *** p<.01, ** p<.05, * p<.1

Table A.1.4. Responses to LSMS Question "If this health facility received LEK 10 million, on which activity would you want most of it spent?"

	COASTAL	CENTRAL	MOUNTAIN	TIRANA	TOTAL
Medicine/vaccine supply	0.39***	0.33***	0.39***	0.33*	0.35
Doctor/nurses training	0.13***	0.16*	0.16	0.15	0.15
Condition of facilities	0.12***	0.1	0.11*	0.06***	0.1
Provide free care for poor	0.27***	0.35***	0.3	0.28**	0.31
Rehabilitation of the building	0.08***	0.02***	0.02***	0.06	0.05
Rehabilitation of the building	0.08***	0.02***	0.02***	0.06	0.05
Salaries of doctors	0.01***	0.03***	0.02***	0.11***	0.04
Other	0.00**	0.01	0.01**	0.01	0.01

Stars indicate if the mean for the subgroup is significantly different from the mean for all other subgroups. *** p<.01, ** p<.05, * p<.1

Table A.1.5. Responses to LSMS Question "In your opinion, is the situation better or worse in terms of corruption cases [in the health sector] comparing today and three years ago?"

	BETTER	THE SAME	WORSE	UNKNOWN
Quintiles				
Quintile 1	0.22	0.49	0.15	0.14
Quintile 2	0.22	0.45***	0.15	0.18
Quintile 3	0.17***	0.53***	0.11***	0.19
Quintile 4	0.2	0.46*	0.15	0.29
Quintile 5	0.22	0.48	0.15	0.15
Total	0.2	0.48	0.14	0.18
Health facilities				
Public hospital	0.2	0.52	0.17***	0.11
Public primary centre	0.21	0.53***	0.10***	0.16
Public polyclinic	0.22	0.43***	0.21***	0.14
Private hospital/clinic	0.16	0.48	0.32***	0.04
Total	0.21	0.51	0.14	0.14
Stratum				
Coastal	0.28***	0.46***	0.09***	0.17
Central	0.18***	0.48	0.14	0.2
Mountain	0.19***	0.48	0.21***	0.12
Tirana	0.13***	0.52***	0.21***	0.14
Total	0.2	0.48	0.14	0.18

Stars indicate if the mean for the subgroup is significantly different from the mean for all other subgroups. *** p<.01, ** p<.05, * p<.1

Table A.1 6. Responses to LSMS Question "Which one of the following do you agree with in terms of unofficial out-of-pocket fees paid at health facilities in Alba?"

QUINTILES	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE	NEITHER AGREE NOR DISAGREE
Private fees must be eliminated and doctors/health care staff should be penalized for requesting such fees					
1	0.56*	0.35***	0.04	0.02	0.03
2	0.52**	0.41***	0.03	0.02	0.02***
3	0.50***	0.40*	0.04	0.03***	0.03
4	0.54	0.39	0.04*	0.00***	0.03
5	0.59***	0.35***	0.02***	0.01***	0.03
Total	0.54	0.38	0.03	0.02	0.03
The Government should increase salaries of health care staff and private fees will automatically be reduced					
1	0.23***	0.5	0.19***	0.03	0.05***
2	0.27***	0.54***	0.13	0.04**	0.02***
3	0.32	0.5	0.11	0.03	0.04
4	0.36***	0.5	0.09***	0.02***	0.03
5	0.41***	0.45***	0.08***	0.03	0.04
Total	0.31	0.5	0.12	0.03	0.04
Unofficial private fees should be made official and publicly announced					
1	0.17***	0.24***	0.27***	0.23***	0.09
2	0.19***	0.29	0.24	0.21***	0.07*
3	0.22	0.28	0.24	0.17	0.08
4	0.21	0.3	0.25	0.17**	0.07
5	0.25***	0.33***	0.19***	0.13***	0.09
Total	0.21	0.29	0.24	0.19	0.08

Stars indicate if the mean for the subgroup is significantly different from the mean for all other subgroups. *** p<.01, ** p<.05, * p<.1

Table A.1.7. Share of Patients who Made Informal Payments for Outpatient Services 2002-2008

QUINTILES	YEAR 2002		YEAR 2005		YEAR 2008	
1	0.228	(0.041)	0.268	(0.042)	0.221	(0.047)
2	0.293	(0.042)	0.244	(0.046)	0.158	(0.035)
3	0.268	(0.032)	0.203	(0.039)	0.200	(0.040)
4	0.327	(0.042)	0.222	(0.035)	0.215	(0.035)
5	0.271	(0.028)	0.162**	(0.029)	0.150	(0.032)
Total population	0.281	(0.021)	0.218	(0.021)	0.190	(0.021)
Nr of observations	2120		1463		1151	
Population size	446938		312500		265258	

Quintiles refer to total per capita consumption quintiles. Standard errors are in brackets.
Stars indicate if the mean for the subgroup is significantly different from the mean of all other subgroups.
*** p<.01, ** p<.05, * p<.1

Table A.1. 8. Share of Patients who Made Informal Payments for Inpatient Services 2002-2008

QUINTILES	YEAR 2002		YEAR 2005		YEAR 2008	
1	0.479*	(0.063)	0.548	(0.060)	0.465	(0.071)
2	0.569	(0.060)	0.602	(0.056)	0.495	(0.085)
3	0.654	(0.048)	0.586	(0.061)	0.351	(0.080)
4	0.644	(0.049)	0.529	(0.057)	0.445	(0.078)
5	0.598	(0.048)	0.517	(0.055)	0.434	(0.086)
Total population	0.597	(0.030)	0.559	(0.032)	0.439	(0.041)
Nr of observations	707		677		377	
Population size	134282		125563		84317.1	

Quintiles refer to total per capita consumption quintiles. Standard errors are in brackets.
Stars indicate if the mean for the subgroup is significantly different from the mean of all other subgroups.
*** p<.01, ** p<.05, * p<.1

Table A.1.9. The mean of the amount paid informally per outpatient visit in Albanian Leks (series with 2002 prices

Quintiles	Year 2002		Year 2005		Year 2008	
Quintile 1	327.55	(55.92)	305.49	(39.50)	304.38	(42.82)
Quintile 2	259.31**	(22.23)	292.73	(37.98)	242.6	(34.95)
Quintile 3	323.27	(53.20)	394.12	(62.54)	265.37	(27.89)
Quintile 4	384.95	(109.04)	323.7	(31.14)	273.82	(34.65)
Quintile 5	450.65	(74.50)	321.38	(31.85)	235.61	(28.52)
Total Population	366.48	(37.98)	326.02	(18.95)	267.2	(15.89)

Quintiles refer to total per capita consumption quintiles. Standard errors in brackets.
Stars indicate if the mean for the subgroup is significantly different from the mean of all other subgroups.
*** p<.01, ** p<.05, * p<.1

Table A.1.10. The mean of the amount paid informally per day hospitalized in Albanian Leks (series with 2002 prices)

Quintiles	Year 2002		Year 2005		Year 2008	
Quintile 1	752.31*	(131.34)	939.74**	(205.38)	636.24***	(156.70)
Quintile 2	789.29*	(115.23)	1091.27	(159.15)	1044.33	(263.67)
Quintile 3	878.58	(122.16)	1222.04	(247.80)	1241.18	(469.45)
Quintile 4	1079.34	(184.35)	1592.53	(370.96)	1937.34	(613.74)
Quintile 5	1911.9	(750.62)	2638.10*	(829.67)	1733.77	(437.79)
Total Population	1127.76	(180.89)	1418	(172.53)	1271.81	(177.29)

Quintiles refer to total per capita consumption quintiles. Standard errors in brackets.
Stars indicate if the mean for the subgroup is significantly different from the mean of all other subgroups.
*** p<.01, ** p<.05, * p<.1

Table A.1.11. Respondents' Evaluation of Health Care Facilities in 200

	OUTPATIENT SERVICE			INPATIENT SERVICE		
	Have not paid informal gifts	Have paid informal gifts	Total	Have not paid informal gifts	Have paid informal gifts	Total
Condition of the Health services facility						
Not satisfactory	0.11	0.11	0.11	0.16	0.1	0.13
Somewhat satisfactory	0.31*	0.25*	0.29	0.22	0.3	0.26
Satisfactory	0.24*	0.30*	0.26	0.22*	0.31*	0.26
Good	0.31	0.31	0.31	0.38*	0.27*	0.34
Excellent	0.03	0.04	0.03	0.02	0.01	0.02
Attention from the Health Officers						
Not satisfactory	0.09	0.12	0.09	0.06*	0.13*	0.09
Somewhat satisfactory	0.28	0.28	0.28	0.31	0.3	0.3
Satisfactory	0.29	0.31	0.29	0.25	0.33	0.29
Good	0.33	0.28	0.32	0.36**	0.22**	0.3
Excellent	0.02	0.01	0.02	0.02	0.01	0.02

Availability of Medicine supply and Vaccine						
Not satisfactory	0.21***	0.35***	0.24	0.21**	0.35**	0.27
Somewhat satisfactory	0.35	0.38	0.36	0.25**	0.38**	0.31
Satisfactory	0.23	0.18	0.22	0.23	0.16	0.2
Good	0.20***	0.09***	0.17	0.29***	0.09***	0.2
Excellent	0.02***	0.00***	0.02	0.01	0.02	0.01
Quality of Medicine and Vaccine supply						
Not satisfactory	0.26***	0.35***	0.28	0.26	0.29	0.27
Somewhat satisfactory	0.35	0.33	0.34	0.26	0.36	0.3
Satisfactory	0.2	0.23	0.21	0.24	0.25	0.24
Good	0.17***	0.08***	0.15	0.22***	0.09***	0.17
Excellent	0.02	0.01	0.02	0.01	0.01	0.01

Stars indicate if the mean for the subgroup is significantly different from the mean for all other subgroups. *** p<.01, ** p<.05, * p<.1

Table A.1.12. Respondents' Evaluation of the Health Care Costs in 2008

	VERY HIGH	HIGH	AFFORDABLE	LOW	NONE
Official costs of Health services					
Public hospital	0.07***	0.2	0.22	0.36***	0.15
Public primary centre	0.09	0.20**	0.22*	0.34*	0.15**
Public polyclinic	0.11***	0.26***	0.27***	0.27***	0.10***
Private hospital/clinic	0.12	0.23	0.22	0.22***	0.22**
Total	0.09	0.21	0.23	0.33	0.14
Money or other Gifts demanded by doctors and other Health care staff for services					
Public hospital	0.17***	0.33***	0.18***	0.14***	0.18**
Public primary centre	0.12***	0.29	0.22***	0.22***	0.15**
Public polyclinic	0.22***	0.26***	0.2	0.14***	0.17
Private hospital/clinic	0.07***	0.27	0.32***	0.16	0.19
Total	0.15	0.3	0.21	0.18	0.16

Stars indicate if the mean for the subgroup is significantly different from the mean for all other subgroups. *** p<.01, ** p<.05, * p<.1

Appendix Two

Propensity Score Matching and Estimation Results

1. 1. Determinants of informal gifts

We pool data from LSMS 2002, 2005 and 2008 to check for the main determinants of informal gifts over time. Albania LSMS it is not a panel survey so we have to rely on cross section analysis to determine the effect of individuals' characteristics on the amount paid informally to medical staff. Our first goal is to get more insights into the individual characteristics determining the amount paid as gifts. In this case the amount of informal gifts is determined by individual characteristics such that:

$$y_i^* = x_i^{'}\beta + \varepsilon_i, \qquad \text{i=1, 2, 3 …,N} \qquad (1)$$

where, y_i refers to the amount paid informally to medical staff in outpatient or inpatient services, x_i denotes a vector of exogenous and observed individual characteristics (see Tables), β represents a vector of estimated coefficients corresponding to the such characteristics, and ε_i is a vector of residuals errors that have a normal distribution.

Not all the patients that visited health care centres reported making informal gifts to medical staff. Therefore we have a share of people reporting zero payments. We suspect this may be mainly for two reasons: (1) the left censoring at zero, or (2) a possible selection bias. The left censoring means that the dependent variable is represented by a latent variable y^* that is not observed when $y_i < 0$. The distribution has full support within the interval $(-\infty,+\infty)$ but we can only observe values that are equal or above 0. The observed variable is thus related to the latent variable through the observation rule:

$$y = \begin{cases} y^* & \text{if} \quad y^* > 0 \\ 0 & \text{if} \quad y^* \leq 0 \end{cases} \qquad (2)$$

As we are dealing with informal gifts it is reasonable to imagine a negative demand for such payments: some people may be aware that they should receive treatment at no costs, or that they have already contributed to financing public health care either directly by paying health insurance contributions or through other taxes. The possible selection bias may be a classical case when the selection and the outcomes are determined by different probability functions. This is a two part model where the first part is a binary outcome modelled as the probability that the binary variable is bigger than 0, and the second part uses a linear regression to model the outcome if the outcome is bigger than 0. The model introduces a latent variable y_1^* and the outcome y_2^* is observed if $y_1^* > 0$. In our case y_1^* defines if the patient makes an informal payment, y_2^* defines the amount of the informal payment, and $y_1^* \neq y_2^*$.

The model includes two equations, the first one being a selection equation for y_1 , where

$$y_1 = \begin{cases} 1 & \text{if } y_1^* > 0 \\ 0 & \text{if } y_1^* \leq 0 \end{cases} \qquad (3)$$

and the resulting outcome for y_2 , where

$$y_2 = \begin{cases} y_2^* & \text{if } y_1^* > 0 \\ - & \text{if } y_1^* \leq 0 \end{cases} \qquad (4)$$

The selection model is used to check for any biases in the selection of the respondents (i.e. people that for certain reasons will never make informal payments but that otherwise are included in the sample). Intuitively, this is less likely since informal gifts are widespread and there is no obvious evidence that would exclude a certain category of person from paying them. Nevertheless this test is designed to capture the overall effect that certain observable characteristics may have on the selection. This is important in order to avoid any biases associated with the estimates from the tobit model. Results from the two models are compared to check for inconsistencies.

The satisfaction of the assumptions of normality and homoskedasticity of the tobit model shows that this model fits the data relatively well (see Tables A5 and A6). The statistically significant likelihood-ratio test of the selection model shows significant correlation between the errors of the two parts of the model, confirming that this selection model performs better than the OLS). However, testing for the robustness of the selection models (using the two step estimation - Table A6) shows that such models are not as robust as the tobit (especially for the inpatient services where selection appears to be much smaller). This indicates that the amount paid informally is determined jointly for different categories.

1. 2. Impact over the years

In order to isolate the individual determinants and how they have changed over the years we employ propensity score matching (PSM). PSM helps to identify individuals with similar characteristics over the different waves of the survey data, in the absence of an experimental set up, where we would be able to construct counterfactuals. After these counterfactuals are identified we can then use them to evaluate changes over the years in the characteristics of those who make informal payments and those who do not. This can help to capture the effect that public policies and reforms to the health sector over this period might have had on the incidence or amount of informal payments.

We assume y_{1i} to be the outcome of the treatment for individual *i* when this individual is subject to treatment and y_{0i} to be the outcome in absence of the treatment for the same individual (see also Deheija and Wahba 2002; Dabalen, Kilic et al. 2008). The treatment effect for an individual is:

$$\tau_i = y_{1t} - y_{0i} \tag{5}$$

and population treatment effect can therefore be defined as:

$$\tau_i = E(y_{1i} \mid \mathrm{T_i} = 1) - E(y_{0i} \mid \mathrm{T_i} = 0) \tag{6}$$

where T indicates the treatment, and $\mathrm{T_i}$ is equal to 1 if individual *i* participates in the treatment and 0 if not. As the treatment here refers to the consecutive year of the survey we do not observe outcomes that would have materialised if corresponding individuals had not participated in the treatment $E(y_{0i} \mid \mathrm{T_i} = 1)$. In our case the treatment involves entire population and therefore the participation is independent of potential outcomes $(y_{1i}, y_{0i} \perp T_i)$. The average treatment effect for the population treated is:

$$\tau = E(y_i \mid \mathrm{T_i} = 1) - E(y_i \mid \mathrm{T_i} = 0) \tag{7}$$

The main motivation for employing PSM techniques is that -in the absence of a panel survey- it is one of the few effective ways to match individuals with the same characteristics over the years. The variables used for the matching correspond to observable characteristics of individuals that are stable over time. Thus PSM approximates an experiment where everyone has the same probability of participating in the consecutive year, and this probability is balanced among the treated and not treated, and conditional on observed variables. The randomisation ensures that the qualities of the treated and not treated are identical in terms of the distribution of observed characteristics.

We have reason to believe that since all of the waves of the LSMS survey were country representative, all individuals had the same probability of participating in the consecutive wave of the survey, and that both treated and not treated came from the same economic environment. Both the randomisation and the similarities in the background (HIT, 1997) are fulfilled in our study.

Table A2.1. Two Stage Slection Models for Outpatient and Inpatient Services

VARIABLES	OUTPATIENT SERVICE				INPATIENT SERVICE			
	Zero or larger payment (selection model)		Log of the amount paid		Zero or larger payment (selection model)		Log of the amount paid	
Constant	-0.237*	(0.139)	6.500***	(0.445)	0.384*	(0.228)	6.648***	(0.739)
(Year 2002)								
Year 2005	-0.257***	(0.050)	0.274***	(0.094)	-0.049	(0.072)	0.218**	(0.110)
Year 2008	-0.230***	(0.056)	0.120	(0.108)	-0.289***	(0.088)	0.338	(0.251)
Rural area	0.013	(0.049)	0.103	(0.065)	0.058	(0.075)	-0.058	(0.125)
(Stratum central)								
Stratum coastal	0.189***	(0.052)	-0.259***	(0.079)	0.202**	(0.086)	0.102	(0.158)
Stratum mountain	-0.294***	(0.061)	0.233**	(0.110)	-0.326***	(0.078)	-0.482**	(0.210)
Stratum Tirana	-0.337***	(0.074)	0.311**	(0.137)	-0.305**	(0.125)	0.035	(0.264)
Gender (“0” male, “1” female)	0.029	(0.042)	-0.004	(0.056)	0.066	(0.065)	-0.096	(0.109)
Age (in years)	0.002	(0.005)	0.003	(0.009)	0.002	(0.007)	-0.008	(0.016)
Age squared	-0.000*	(0.000)	-0.000	(0.000)	-0.000	(0.000)	0.000	(0.000)
(Civil status – married)								
Civil status - divorced and widow	-	-	-0.040	(0.069)	-	-	-0.012	(0.156)
Civil status – single			0.122	(0.091)			-0.066	(0.173)
Chronic illness	-0.000	(0.059)	0.093	(0.076)	-0.183**	(0.091)	-0.029	(0.182)
Health rate (“1” very bad - “5” excellent)	-0.041	(0.032)	-0.024	(0.044)	-0.007	(0.052)	0.312***	(0.081)
Have health insurance license	-0.233***	(0.048)	-	-	-0.198***	(0.072)	-	-
(Primary/No education)								
Secondary education	-0.019	(0.058)	0.145*	(0.076)	0.097	(0.086)	0.021	(0.134)
University education	-0.170	(0.108)	0.345**	(0.159)	0.082	(0.170)	0.332	(0.249)
(Nuclear family with children)								
Nuclear families head and spouse	0.370*	(0.210)	-0.491*	(0.285)	-0.300	(0.372)	-0.220	(0.654)
Extended families	0.157	(0.107)	0.012	(0.147)	-0.072	(0.154)	0.352	(0.255)
Quintile 1	-0.013	(0.072)	0.049	(0.094)	-0.186*	(0.097)	-0.032	(0.186)
Quintile 2	0.011	(0.069)	-0.108	(0.090)	-0.022	(0.097)	-0.077	(0.148)
(Quintile 3)								
Quintile 4	0.127**	(0.063)	-0.070	(0.088)	0.044	(0.100)	-0.057	(0.152)
Quintile 5	0.049	(0.065)	0.167**	(0.085)	0.079	(0.103)	0.300*	(0.156)
Employment: public official	0.020	(0.114)	-	-	0.101	(0.175)	-	-
Employment: health practitioners	-0.149	(0.166)	-	-	-0.098	(0.206)	-	-
/mills	-1.062***	(0.346)	-	-	-1.118	(0.885)	-	-
Number of observations	4707				1707			
chi2	253.358				195.193			

note: *** p<.01, ** p<.05, * p<.1 Standard errors are in brackets.

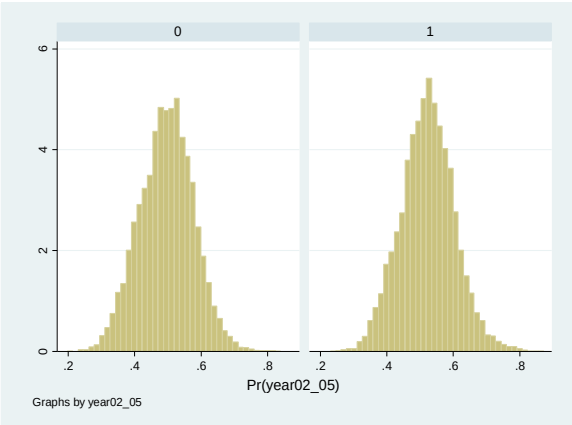
Table A2.2. Logit Results (dependent variable =1 if the individual participates in the next year survey)

	YEARS 2002 – 2005		YEARS 2005 - 2008		YEARS 2002 - 2008	
Constant	-1.764***	(0.182)	4.799***	(0.280)	3.995***	(0.270)
Rural area	-0.035	(0.035)	-0.064	(0.046)	-0.131***	(0.047)
(Stratum central)						
Stratum coastal	0.090**	(0.035)	-0.013	(0.046)	0.074	(0.046)
Stratum mountain	-0.027	(0.036)	-0.250***	(0.044)	-0.282***	(0.046)
Stratum Tirana	0.113**	(0.046)	0.299***	(0.070)	0.441***	(0.071)
Gender	0.068**	(0.030)	-0.361***	(0.037)	-0.338***	(0.038)
Age	0.017***	(0.006)	-0.280***	(0.010)	-0.296***	(0.010)
Age square	0.000	(0.000)	0.003***	(0.000)	0.003***	(0.000)
(Civil status – married)						
Civil status - divorced and widow	-0.050	(0.080)	4.608***	(0.074)	4.613***	(0.078)
Civil status - single	0.544***	(0.062)	-2.899***	(0.113)	-2.570***	(0.110)
Chronic illness	0.169***	(0.058)	-0.305***	(0.118)	-0.141	(0.112)
Health rate (“1” very bad - “5” excellent)	0.341***	(0.037)	0.096	(0.073)	0.385***	(0.069)
(No insurance)						
Health insurance status: normal	-0.019	(0.034)	-0.094**	(0.045)	-0.094**	(0.045)
Health insurance status: war/other invalid	0.535***	(0.133)	0.510**	(0.214)	1.018***	(0.247)
(Primary/No education)						
Secondary education	0.239***	(0.037)	0.290***	(0.048)	0.507***	(0.049)
University education	0.361***	(0.063)	0.925***	(0.085)	1.235***	(0.091)
(Nuclear family with children)						
Nuclear families head and spouse	0.654**	(0.266)	-0.535***	(0.167)	0.173	(0.226)
Extended families	0.504***	(0.100)	0.785***	(0.098)	1.389***	(0.135)
Quintile 1	0.253***	(0.050)	0.147**	(0.061)	0.291***	(0.064)
Quintile 2	0.072	(0.048)	0.082	(0.060)	0.075	(0.063)
(Quintile 3)						
Quintile 4	-0.239***	(0.046)	0.083	(0.062)	-0.203***	(0.062)
Quintile 5	-0.479***	(0.046)	-0.020	(0.066)	-0.536***	(0.065)
Log pseudolikelihood	-17938.641		-10144.923		-9934.2702	
Nr of observation	26406		26127		25519	
Pseudo R2	0.0197		0.4398		0.4382	

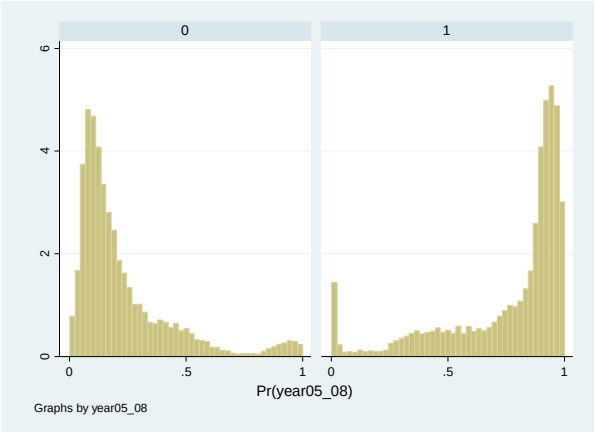
note: The results are used to estimate the propensity score for the matching of individuals over the years.
*** p<.01, ** p<.05, * p<.1; Reference categories in italics. Standard errors are in brackets.

Figure A2.1. Histograms from the predicted scores from the logit models used for matching

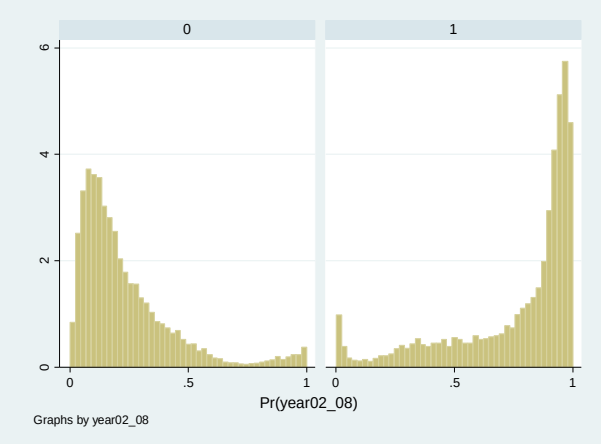
(a) Predicted scores for 2002 and 2005



(b) Predicted scores for 2005 and 2008



(c) Predicted scores for 2002 and 2008



Note: Predicted scores are based on the models given in Table A8 above and show the regions of the common support for the matching of individuals over the years.

Table A2.3. Informal Payments in Outpatient Services: Results from Tobit & Heckman Selection Models

VARIABLES	TOBIT MODEL		HECKMAN SELECTION MODEL WITHOUT EXCLUSION			
	Log of the amount paid		Zero or larger payment (selection model)		Log of the amount paid	
Constant	1.465**	(0.642)	-0.218	(0.139)	5.692***	(0.258)
(Year 2002)						
Year 2005	-0.736***	(0.150)	-0.258***	(0.050)	0.125**	(0.058)
Year 2008	-0.670***	(0.197)	-0.228***	(0.056)	-0.037	(0.075)
Rural area	0.092	(0.146)	0.008	(0.049)	0.147***	(0.050)
(Stratum central)						
Stratum coastal	0.490***	(0.153)	0.190***	(0.052)	-0.165***	(0.055)
Stratum mountain	-0.876***	(0.183)	-0.296***	(0.061)	0.067	(0.072)
Stratum Tirana	-1.032***	(0.223)	-0.336***	(0.074)	0.104	(0.090)
Gender (“0” male, “1” female)	0.133	(0.128)	0.031	(0.042)	0.012	(0.045)
Age (in years)	0.047**	(0.023)	0.002	(0.005)	0.006	(0.008)
Age squared	-0.001***	(0.000)	-0.000*	(0.000)	-0.000	(0.000)
(Civil status – married)						
Civil status - divorced and widow	-0.127	(0.196)	-	-	-0.031	(0.071)
Civil status – single	0.385	(0.261)	-	-	0.127	(0.092)
Chronic illness	0.014	(0.176)	0.003	(0.059)	0.078	(0.062)
Health rate (“1” very bad - “5” excellent)	-0.148	(0.097)	-0.043	(0.032)	-0.043	(0.036)
Have health insurance license	-0.779***	(0.143)	-0.259***	(0.047)	-	-
(Primary/No education)						
Secondary education	0.026	(0.172)	-0.015	(0.058)	0.116*	(0.062)
University education	-0.430	(0.323)	-0.162	(0.108)	0.213*	(0.128)
(Nuclear family with children)						
Nuclear families head and spouse	0.985	(0.622)	0.365*	(0.210)	-0.270	(0.216)
Extended families	0.553*	(0.319)	0.151	(0.107)	0.095	(0.117)
Quintile 1	-0.028	(0.213)	-0.011	(0.072)	0.041	(0.077)
Quintile 2	-0.020	(0.205)	0.012	(0.069)	-0.109	(0.073)
(Quintile 3)						
Quintile 4	0.370**	(0.188)	0.127**	(0.063)	-0.002	(0.067)
Quintile 5	0.188	(0.192)	0.050	(0.065)	0.194***	(0.069)
Employment: public official	0.133	(0.335)	0.050	(0.111)	-	-
Employment: health practitioners	-0.569	(0.494)	-0.193	(0.165)	-	-
/sigma	3.168***	(0.082)	-	-	-	-
/athrho	-	-	-0.408***	(0.143)	-	-
/lnsigma	-	-	-0.293***	(0.046)	-	-
Log likelihood	-4272.674		-3585.060			
Number of observations	4707		4707			
R2 (pseudo)	0.032		-			
rho chi2 (1)			-0.387**			

note: *** p<.01, ** p<.05, * p<.1; Reference categories in italics. Standard errors are in brackets.

Table A2.4. Informal Payments in Outpatient Services: Changes Over Time in the Likelihood of Making Informal Payments

	OUTPATIENT SERVICE	
Year 2002 - 2005		
Nearest - neighbor model	-0.217***	(0.048)
Kernel model	-0.208***	(0.043)
Year 2005 - 2008		
Nearest - neighbor model	0.015	(0.081)
Kernel model	0.054	(0.071)
Year 2002 - 2008		
Nearest - neighbor model	-0.038	(0.083)
Kernel model	-0.040	(0.079)

note: *** p<.01, ** p<.05, * p<.1 Standard errors in brackets.

Table A2.5. Informal Payments in Outpatient Services: Changes Over Time in Individual Characteristics Significantly Associated with Making Informal Payments

	DIFFERENCE BETWEEN YEARS (2002-2005)	S.E	DIFFERENCE BETWEEN YEARS (2005-2008)	S.E	DIFFERENCE BETWEEN YEARS (2002-2008)	S.E
Rural area	-0.008	(0.025)	0.134***	(0.043)	0.077*	(0.041)
Stratum coastal	0.072***	(0.023)	0.019	(0.042)	-0.005	(0.038)
Stratum central	-0.030	(0.023)	0.015	(0.039)	0.075**	(0.037)
Stratum mountain	-0.075***	(0.020)	0.048	(0.033)	0.021	(0.036)
Stratum Tirana	0.034*	(0.021)	-0.082**	(0.042)	-0.091***	(0.035)
Gender	0.056**	(0.025)	-0.290***	(0.045)	-0.251***	(0.042)
Age	2.596***	(1.005)	-3.251*	(1.979)	-4.585***	(1.891)
Age square	167.874*	(89.401)	-359.564*	(181.26)	-536.648***	(167.81)
Civil status - married	0.053***	(0.023)	-0.004	(0.043)	-0.099***	(0.040)
Civil status - divorced and widow	0.010	(0.017)	-0.013	(0.043)	0.020	(0.036)
Civil status single	-0.038***	(0.014)	0.021	(0.027)	0.088***	(0.025)
Chronic illness	0.036	(0.023)	-0.088**	(0.042)	-0.095***	(0.039)
Health rate	-0.157***	(0.040)	0.167**	(0.076)	0.201***	(0.068)
Health insurance status: normal	0.088***	(0.025)	-0.036	(0.045)	-0.039	(0.042)
Health insurance status: war/other invalid	-0.029***	(0.012)	0.007	(0.027)	0.001	(0.023)
No health insurance	-0.058***	(0.024)	0.028	(0.041)	0.038	(0.040)
Without education	-0.052***	(0.010)	-0.024	(0.017)	-0.052***	(0.021)
Primary education	0.059***	(0.025)	-0.023	(0.023)	-0.025	(0.041)
Second education	-0.005	(0.023)	0.061*	(0.037)	0.049	(0.035)
University education	-0.001	(0.013)	0.044	(0.029)	0.028	(0.023)
Nuclear families head and spouse	0.015***	(0.005)	0.014*	(0.008)	0.013***	(0.004)
Nuclear families couple and children	0.026	(0.018)	0.036	(0.032)	0.021	(0.030)
Extended families	0.007	(0.009)	-0.019	(0.024)	-0.006	(0.017)
Quintile 1	-0.009	(0.017)	0.051*	(0.031)	0.110***	(0.027)
Quintile 2	0.059***	(0.018)	0.010	(0.033)	0.110***	(0.029)
Quintile 4	0.013	(0.021)	0.013	(0.038)	0.042	(0.035)
Quintile 5	-0.050**	(0.023)	-0.037	(0.041)	-0.292***	(0.040)

Note: Results are displayed for the matching using 5-nearest neighbour estimator. The caliper width is 0.01. Stars indicate : *** p<.01, ** p<.05, * p<.1 Standard errors in brackets.

Table A2.6. Informal Payments in Inpatient Services: Results from Tobit & Heckman Selection Models

VARIABLES	TOBIT MODEL		HECKMAN SELECTION MODEL WITHOUT EXCLUSION			
	Log of the amount paid		Zero or larger payment (selection model)		Log of the amount paid	
Constant	3.415**	(1.388)	0.403*	(0.224)	6.789***	(0.490)
(Year 2002)						
Year 2005	-0.090	(0.305)	-0.045	(0.071)	0.220**	(0.110)
Year 2008	-0.718	(0.492)	-0.271***	(0.087)	0.357**	(0.178)
Rural area	0.182	(0.321)	0.051	(0.073)	-0.069	(0.112)
(Stratum central)						
Stratum coastal	0.878**	(0.360)	0.170**	(0.085)	0.067	(0.131)
Stratum mountain	-1.816***	(0.340)	-0.333***	(0.077)	-0.461***	(0.129)
Stratum Tirana	-1.514***	(0.549)	-0.286**	(0.124)	0.079	(0.206)
Gender (“0” male, “1” female)	0.261	(0.283)	0.060	(0.064)	-0.106	(0.104)
Age (in years)	-0.015	(0.048)	0.004	(0.007)	-0.008	(0.016)
Age squared	0.000	(0.000)	-0.000	(0.000)	-0.000	(0.000)
(Civil status – married)						
Civil status - divorced and widow	-0.658	(0.470)	-	-	0.010	(0.154)
Civil status – single	-0.426	(0.539)	-	-	-0.103	(0.169)
Chronic illness	-0.828**	(0.396)	-0.187**	(0.090)	-0.019	(0.146)
Health rate (“1” very bad - “5” excellent)	0.141	(0.224)	-0.026	(0.052)	0.296***	(0.083)
Have health insurance license	-0.960***	(0.311)	-0.208***	(0.062)	-	-
(Primary/No education)						
Secondary education	0.443	(0.365)	0.090	(0.085)	0.009	(0.130)
University education	0.550	(0.716)	0.045	(0.168)	0.308	(0.255)
(Nuclear family with children)						
Nuclear families head and spouse	-1.653	(1.663)	-0.347	(0.369)	-0.246	(0.644)
Extended families	-0.169	(0.683)	-0.057	(0.153)	0.364	(0.258)
Quintile 1	-0.922**	(0.425)	-0.179*	(0.097)	-0.011	(0.158)
Quintile 2	-0.142	(0.416)	-0.038	(0.096)	-0.091	(0.151)
(Quintile 3)						
Quintile 4	0.158	(0.427)	0.044	(0.099)	-0.067	(0.153)
Quintile 5	0.533	(0.436)	0.089	(0.102)	0.296*	(0.156)
Employment: public official	0.649	(0.739)	0.156	(0.148)	-	-
Employment: health practitioners	-0.404	(0.890)	-0.085	(0.172)	-	-
/sigma	5.061***	(0.135)	-	-	-	-
/athrho	-	-	-1.058***	(0.149)	-	-
/lnsigma	-	-	0.476***	(0.052)	-	-
Log likelihood	-3406.004		-2655.230			
Number of observations	1707		1707			
R2 (pseudo)	0.021					
rho chi2 (1)			-0.785***			

note: *** p<.01, ** p<.05, * p<.1 Standard errors are in brackets.

Table A2.7. Informal Payments in Inpatient Services: Changes Over Time in the Likelihood of Making Informal Payments

	INPATIENT SERVICE	
Year 2002 - 2005		
Nearest - neighbour model	-1.053***	(0.418)
Kernel model	-0.904***	(0.381)
Year 2005 - 2008		
Nearest - neighbour model	2.774*	(1.415)
Kernel model	1.920	(1.363)
Year 2002 - 2008		
Nearest - neighbour model	1.129	(0.917)
Kernel model	1.045	(0.869)

note: *** p<.01, ** p<.05, * p<.1 Standard errors in brackets.

Table A2.8. Informal Payments for Inpatient Services: Changes Over Time in Individual Characteristics Significantly Associated with Making Informal Payments

	DIFFERENCE BETWEEN YEARS (2002-2005)	S.E	DIFFERENCE BETWEEN YEARS (2005-2008)	S.E	DIFFERENCE BETWEEN YEARS (2002-2008)	S.E
Rural area	0.070	(0.052)	0.197*	(0.110)	0.258*	(0.149)
Stratum coastal	0.017	(0.036)	0.226**	(0.086)	0.113	(0.120)
Stratum central	0.042	(0.044)	0.003	(0.097)	0.090	(0.128)
Stratum mountain	-0.034	(0.052)	-0.149	(0.108)	0.112	(0.146)
Stratum Tirana	-0.025	(0.037)	-0.080	(0.078)	-0.317***	(0.110)
Gender	0.031	(0.051)	-0.440***	(0.099)	-0.359***	(0.146)
Age	1.635	(1.975)	-3.293	(4.224)	-16.765***	(5.730)
Age square	78.798	(164.58)	-299.339	(356.06)	-168.024***	(517.98)
Civil status - married	0.097**	(0.047)	-0.003	(0.105)	-0.041	(0.141)
Civil status - divorced and widow	-0.019	(0.028)	-0.023	(0.098)	-0.022	(0.128)
Civil status - single	-0.069*	(0.037)	0.002	(0.076)	0.035	(0.089)
Chronic illness	-0.098*	(0.051)	0.060	(0.110)	-0.332***	(0.139)
Health rate	-0.075	(0.090)	-0.173	(0.187)	0.252	(0.260)
Health insurance status: normal	0.073	(0.052)	0.102	(0.110)	-0.139	(0.149)
Health insurance status: war/other invalid	0.023	(0.024)	-0.083	(0.070)	-0.040	(0.072)
No health insurance	-0.096*	(0.052)	-0.019	(0.110)	0.180	(0.149)
Without education	-0.021	(0.015)	-0.004	(0.024)	-0.111*	(0.067)
Primary education	0.001	(0.048)	-0.053	(0.046)	0.027	(0.139)
Secondary education	-0.001	(0.045)	0.128	(0.094)	0.040	(0.121)
University education	0.021	(0.021)	0.001	(0.051)	0.043	(0.071)
Nuclear families head and spouse	0.007	(0.005)	0.020*	(0.012)	0.015	(0.011)
Nuclear families couple and children	0.032	(0.034)	-0.066	(0.078)	0.023	(0.077)
Extended families	0.001	(0.020)	-0.042	(0.055)	0.044	(0.052)
Quintile 1	0.030	(0.041)	-0.038	(0.099)	0.256***	(0.100)
Quintile 2	0.013	(0.041)	0.002	(0.082)	0.063	(0.118)
Quintile 4	-0.026	(0.042)	0.042	(0.089)	-0.121	(0.126)
Quintile 5	-0.036	(0.042)	0.017	(0.077)	-0.140	(0.132)

Note: Results are displayed for the matching using 5-nearest neighbour estimator. The caliper width is 0.01. Stars indicate : *** p<.01, ** p<.05, * p<.1 Standard errors in brackets.