



This is a repository copy of *Evaluating the prevalence of informal payments for health services in Southeast Europe: an institutional approach*.

White Rose Research Online URL for this paper:
<http://eprints.whiterose.ac.uk/140062/>

Version: Accepted Version

Article:

Williams, C.C. orcid.org/0000-0002-3610-1933 and Horodnic, A.V. (2018) Evaluating the prevalence of informal payments for health services in Southeast Europe: an institutional approach. *Journal of Southeast European and Black Sea*, 18 (3). pp. 345-365. ISSN 1468-3857

<https://doi.org/10.1080/14683857.2018.1487138>

This is an Accepted Manuscript of an article published by Taylor & Francis in *Southeast European and Black Sea Studies* on 16/07/2018, available online:
<http://www.tandfonline.com/10.1080/14683857.2018.1487138>

Reuse

Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



eprints@whiterose.ac.uk
<https://eprints.whiterose.ac.uk/>

7,926 words

Evaluating the prevalence of informal payments for health services in Southeast Europe: an institutional approach

Abstract

Drawing inspiration from institutional theory, the aim of this paper is to explain the prevalence of informal payments for health services in Southeast Europe as resulting from formal institutional failures which lead to an asymmetry between the laws and regulations (formal institutions) and the unwritten rules (informal institutions), making informal payments acceptable. Reporting a 2013 Eurobarometer survey of the propensity to make informal payments for health services in Southeast Europe, a strong association is found between the degree to which formal and informal institutions are unaligned, and the prevalence of informal payments. The relationship between informal payments and formal institutional imperfections is then explored to identify the structural conditions which lead to this institutional asymmetry in Southeast Europe, and thus the propensity to make informal payments. The paper concludes by exploring the theoretical and policy implications.

Keywords: informal payments, Southeast Europe, health services, institutional theory, institutional asymmetry.

Introduction

It is now widely recognised that in many countries, those using health services make informal payments to healthcare professionals in order to obtain either better treatment (Atanasova, Pavlova, and Groot 2015; Baji et al. 2011; Balabanova and McKee 2002; Habibov 2016; Mæstad and Mwisongo 2011; Liaropoulos et al. 2008; Vian et al. 2006), due to their fear of being denied treatment (Tahiri et al. 2013; Vian et al. 2006), to receive an additional service (Ensor 2004), because the ‘doctor demanded payment’ (Liaropoulos et al. 2008), because it is the norm to give a gift to express gratitude (Fomenko and Stepurko 2012; Liaropoulos et al. 2008; Vian et al. 2006) or just ‘because everybody does it’ (Liaropoulos et al. 2008). Making informal payments for health services is not some minority practice. Stepurko et al. (2013), for example, find that some 35-60% of patients make informal payments in Bulgaria, Hungary, Lithuania, Poland, Romania and Ukraine. **As such, explaining and tackling this systemic problem is necessary if healthcare systems are to be developed which are not based on bribes and corruption, and which provides more equal access** (Delcheva, Balabanova, and McKee 1997; Gaal and McKee 2005; Lewis 2002).

The aim of this paper is to evaluate a new way of explaining informal payments for health services in Southeast Europe. Until now, institutional theory (Baumol and Blinder 2008; North 1990) has been used in health services research to evaluate the adoption of health information technology (Fareed et al. 2015; Nilashi et al. 2016; Sherer 2010), healthcare reform (Contandriopoulos and Brousselle 2010), patient-centred preventative care (Ledderer 2010) and healthcare expenditure (Burnett et al. 2016). In this paper, and drawing inspiration from the application of institutional theory to the study of the wider informal economy (Author 2016; Author 2015a, 2015b, 2015c, 2016a, 2016b), we here for the first time seek to evaluate

the validity of explaining informal payments to patients in Southeast Europe through the lens of institutional theory.

From an institutionalist perspective, informal payments can be explained in two ways. Firstly, informal payments can be explained to result from formal institutional failures in healthcare services. Indeed, previous literature has identified a number of systemic factors that lead to informal payments, including legal-ethical, socio-cultural (i.e., the social custom of expressing gratitude through informal payments), governance failures (e.g. poor accountability) and economic (e.g. underfunding in the face of growing healthcare needs) conditions (Cohen 2012; Gaal and McKee 2005; Gaal and McKee 2004; Tambor et al. 2013).

Secondly, however, and reflecting the advances in institutional theory when studying the wider informal economy (Author 2015a, 2015b), institutions can be seen as ‘the rules of the game’ prescribing what is socially acceptable, and therefore constraining and encouraging various behaviours (North 1990). In every society, moreover, there are both formal institutions (i.e., codified laws and regulations) which prescribe the legal rules of the game, and informal institutions which describe the ‘socially shared rules, usually unwritten, that are created, communicated and enforced outside of officially sanctioned channels’ (Helmke and Levitsky 2004, 727). Viewed through this institutional lens, informal payments therefore emerge when formal institutional failures lead to a lack of alignment between the formal rules of the game and the norms, practices and values of the informal institutions. Indeed, the greater is the institutional asymmetry, the higher is the prevalence of informal payments. Until now, neither the formal institutional imperfections nor the institutional asymmetry thesis have been evaluated as explanations for informal payments by patients in Southeast Europe. This paper, therefore, begins to fill that gap.

To start to evaluate these institutionalist explanations, section 2 briefly reviews the previous literature on informal payments and how institutional theory can be used to explain

this practice. The outcome will be a set of hypotheses regarding the association between informal payments and the level of asymmetry between formal and informal institutions, and the association between informal payments and various formal institutional failures. To start to test these hypotheses, section 3 then reports the dataset used, namely a 2013 Eurobarometer survey involving more than 5,000 face-to-face interviews with patients in six countries in Southeast Europe, along with the analytical methods employed (logistic regression). The fourth section then reports the results on the relationship between informal payments and institutional asymmetry, as well as the association between such payments and various systemic conditions. The final section then draws conclusions on the theoretical and policy implications.

At the outset, however, informal payments must be defined. Reflecting the emergent consensus, informal payments refer to direct contributions in cash or in kind, made in addition to any contribution determined by the terms of entitlement, by patients or others acting on their behalf, to health care providers for services to which the patients are entitled (Chereches et al. 2013; Gaal, Jakab, and Shishkin 2011). Although there is a string consensus over how to define informal payments, the same cannot be said about the phrases used to refer to this phenomenon, which is also termed ‘under-the-table’ payments (Delcheva, Balabanova, and McKee 1997), ‘under-the-counter’ payments (Balabanova and McKee 2002; Delcheva Balabanova, and McKee 1997) and ‘unofficial’ payments (Ensor 2004).

Evaluating informal payments for health services: an institutional approach

Over the past decade or so, there has been an emergent literature which has shown how, especially in developing and transition countries, it is common when receiving healthcare services for patients to make additional informal payments to the medical staff apart from the

official fees for healthcare services received. This has been identified not only in a cross-national study of 35 European countries (Tambor et al. 2013), but also in studies conducted in individual Southeast European countries, such as Bulgaria (Atanasova, Pavlova, and Groot 2015; Balabanova and McKee 2002; Delcheva, Balabanova, and McKee 1997; Pavlova, Groot, and van Merode 2002; Rechel et al. 2011) and Greece (Kaitelidou et al. 2013; Liaropoulos et al. 2008). **Indeed, examining this literature, what becomes quickly apparent is that this is far from being a minority rarely used practice in Southeast Europe.** Estimates suggest that the proportion of patients making informal payments is 43% in Bulgaria (Delcheva, Balabanova, and McKee 1997) and 36% in Greece (Liaropoulos et al. 2008).

To explain the prevalence of informal payments for healthcare services in Southeast Europe, inspiration is here drawn from institutional theory (North 1990). Following advances in the use of institutional theory to explain the wider informal economy, it is here argued that informal payments can be viewed as socially constructed behaviour, and institutions as ‘the rules of the game’ which prescribe, monitor, enforce, and support what is socially acceptable (Baumol and Blinder 2008; North 1990; Webb et al. 1999). **This socially constructed behaviour of making informal payments for healthcare services is therefore shaped by institutional environments. According to Scott (2008), such institutional environments comprise the regulative, normative and cultural-cognitive pillars. The regulatory pillar is comprised of the formal rules, regulations and associated sanctions that promote certain behaviours and restrict others (e.g. making informal payments to medical staff). The normative pillar refers to wider norms, values and beliefs present in a society about what constitutes an acceptable behaviour (socially legitimate behaviour). As such, some may consider that it is acceptable to give a gift to a physician to express gratitude. The cultural-cognitive pillar relates to how certain behaviours become the norm based on shared understandings and common beliefs. Indeed, one has only to consider that it is the norm to give a gift to a physician to express gratitude**

(Fomenko and Stepurko 2012; Liaropoulos et al. 2008; Vian et al. 2006) and ‘everybody does it’ (Liaropoulos et al. 2008). Informal payments by patients are therefore often referred to as ‘culturally’ embedded, the ‘culture of gifts’ being rooted in long-standing traditions, particularly in post-socialist societies. The regulative pillar refers to formal institutions, while the normative and cultural-cognitive pillars refer to informal institutions.

All societies have both formal institutions (i.e., codified laws and regulations) that set out the legal rules of the game, as well as informal institutions which are the ‘socially shared rules, usually unwritten, that are created, communicated and enforced outside of officially sanctioned channels’ (Helmke and Levitsky 2004, 727). Informal payments are viewed as an endeavour which are outside of formal institutional prescriptions but within the norms, values, and beliefs of informal institutions. Such payments thus prevail when there is asymmetry between the codified laws and regulations (formal institutions) and the socially shared unwritten rules (informal institutions). Indeed, the greater is the institutional asymmetry, the higher is the prevalence of informal payments. Here therefore, and to evaluate whether the likelihood of making informal payments for healthcare services is associated with the degree of asymmetry between formal and informal institutions, the following hypothesis can be proposed:

Institutional asymmetry hypothesis (H1): the commonality of informal payments is greater in populations with greater asymmetry between their formal and informal institutions.

Indeed, examining who is more likely to make informal payments for healthcare services, previous studies conducted across the world display that women are more likely to do so (Baji et al. 2012; Balabanova and McKee 2002; Mokhtari and Ashtari 2012; Riklikiene, Jarasiunaite,

and Starkiene 2014; Author 2016), as are younger persons (Arsenijevic, Pavlova, and Groot 2015; Balabanova and McKee 2002; Danyliv et al. 2015; Tomini and Maarse 2011; Tomini, Groot, and Pavlova 2012a; [Stepurko et al. 2015b](#)), those who spent more years in education (Arsenijevic, Pavlova, and Groot 2015; Baji et al. 2012; Balabanova and McKee 2002; Kaitelidou et al. 2013; Riklikiene, Jarasiunaite, and Starkiene 2014; [Stepurko et al. 2015b](#); Tomini, Groot, and Pavlova 2012a), those in employment (Kaitelidou et al. 2013), those married (Tomini, Groot, and Pavlova 2012a), living in smaller households (Baji et al. 2012; Tomini, Groot, and Pavlova 2012a; Tomini, Groot, and Pavlova 2012b), rural dwellers (Danyliv et al. 2015; Tomini and Groot 2013; Tomini and Maarse 2011), and lower income populations (Kankeu and Ventelou 2016; Szende and Culyer 2006; Tengilimoglu et al. 2015; Tomini and Groot 2013). Here, therefore, by testing the institutional asymmetry hypothesis, it can be revealed whether these populations are more likely to make informal payments and whether this is associated with them having a higher institutional asymmetry.

[Institutional asymmetry, nevertheless, can be viewed as resulting from formal institutional imperfections \(Webb et al. 2009\). The ways in which, and whether, these formal institutional failures produce institutional asymmetry is a complex process that will vary in different institutional environments. For instance, developing economies are so defined precisely because they have ‘weak’ and under-developed formal institutions. They usually suffer from a lack of modernisation of public services and state authorities, a lack and misallocation of resources, widespread corruption practices and so forth. With these formal institutional failings, it is perhaps unsurprising that citizens draw upon existing socially shared norms, values and beliefs instead of relying on formal laws and regulations \(Author, 2017\). As such, the structural conditions characterising formal institutions, that previous literature has identified as associated with the greater prevalence of informal payments, need to be evaluated as determinants of the level of institutional asymmetry. \[Reviewing the literature on the\]\(#\)](#)

systemic factors that lead to informal payments by patients (e.g. economic conditions, governance failures), we here group formal institutional imperfections into two categories. **Firstly**, formal institutional voids, such as lower expenditures on healthcare (Balabanova and McKee 2002) and inefficient resource allocation which results in a low range and reach of healthcare services (Baji et al. 2013; Gaal and McKee 2004; Gaal, Evetovits, and McKee 2006; Kutzin, Jakab, and Cashin 2010; Lewis 2002; Tambor et al. 2013; Tomini and Groot 2013), **and secondly**, formal institutional inefficiencies, such as the poor quality of government and lower performing healthcare systems (Cohen 2012; Fotaki 2009; Gaal and McKee 2004; Lewis 2002; Rechel et al. 2011; Stepurko et al. 2015a; Tambor et al. 2013; Tomini and Groot 2013). To test whether these formal institutional voids and inefficiencies are associated with greater levels of informal payment, the following hypotheses can be thus evaluated:

Formal institutional failures hypothesis (H2): the commonality of informal payments is higher in health systems with greater formal institutional imperfections.

Formal institutional voids (H2A): the commonality of informal payments is greater in health systems with greater formal institutional voids.

Lack of financial resources (H2A1): the commonality of informal payments is greater in health systems with lower expenditures on health.

Lack of a basic health service (H2A2): the commonality of informal payments is greater in health systems with a lower range and reach of service provision.

Formal institutional inefficiencies (H2B): the commonality of informal payments is greater in countries with greater formal institutional inefficiencies.

Quality of government (H2B1): the commonality of informal payments is greater in countries with a lower quality of government.

Health system performance (H2B2): the commonality of informal payments is greater in health systems with higher death rates.

Methodology

In order to analyse the relationship between informal payments and the degree of institutional asymmetry, along with the explanations relating to formal institutional imperfections, we here use Special Eurobarometer No. 397 ('Corruption'), conducted as part of wave 79.1 of the Eurobarometer survey (European Commission 2014a). This survey involved over 5,000 face-to-face interviews conducted in February and March 2013 across six countries in Southeast Europe (Bulgaria, Cyprus, Croatia, Greece, Romania and Slovenia), of which 3,446 reported that they had visited a public healthcare practitioner or institution in the past 12 months. In this paper, only those respondents **who used healthcare services** have been analysed, for which data on each and every analysed variable is available.

The interviews for this Eurobarometer survey were carried out in the national language with adults aged 15 years and older, using a common questionnaire and a multi-stage random (probability) sampling methodology to ensure that on the issues of gender, age, region and locality size, each country as well as each level of sample was representative in proportion to its population size (see **Eurobarometer Technical Notes for details; European Commission, 2014b**). For the univariate analysis, we have therefore used the sample weighting scheme as recommended in the broader literature (Solon, Haider, and Wooldridge 2013; Winship and Radbill 1994) as well as the Eurobarometer methodology (European Commission 2014b). Regarding the multivariate analysis, however, there is debate regarding whether a weighting

scheme should be used or not (Pfefferman 1994; Sharon and Liu 1994; Solon, Haider, and Wooldridge 2013). Given that the majority view in this literature and previous studies on the wider informal economy (e.g. Author 2016) is that the weighting scheme should not be used for the multivariate analysis, we decided not to do so.

The dependent variable is whether patients made extra informal payments for healthcare services. This is based on an analysis of responses to the question: ‘Apart from official fees did you have to give an extra payment or a valuable gift to a nurse or a doctor, or make a donation to the hospital?’. To analyse H1 regarding whether informal payments are associated with the degree of institutional asymmetry, an Institutional Asymmetry Index for each respondent has been constructed. Participants were asked to rate on a 3-point Likert scale (where 1 means always acceptable and 3 means never acceptable) the acceptability of three behaviours, namely: a) to give money, b) to give a gift or c) to do a favour, in order to get something from the public administration or a public service. The index has been calculated here using the mean score across these three attitudinal questions. A lower index value indicates that the norms, values and beliefs of a society’s informal institutions are not aligned with the formal institutions (i.e., the ‘legal rules of the game’). The lower the index value, the higher is the institutional asymmetry.

To analyse the relationship between informal payments and formal institutional imperfections (H2), meanwhile, and similar to previous studies on informal payments, the relationship between informal payments and various country-level structural conditions are evaluated (e.g. Belli, Shahriari, and Gotzadze 2004; Bloom, Han, and Li 2001; Cohen 2012), whilst holding constant the Institutional Asymmetry Index and a range of individual-level variables (gender, age, household composition, social class, employment status, difficulties paying bills, and type of community). Similar individual-level socio-demographic,

socio-economic and spatial characteristics have been used in previous studies when evaluating informal payments (Baji et al. 2013; Author 2016).

To evaluate the lack of financial resources hypothesis (H2A1), we used the level of total expenditure on health expressed as a percentage of GDP (World Bank 2013) and to evaluate the lack of a basic health service hypothesis (H2A2) we used the range and reach of health services provided in a country – a sub-component of the European Health Consumer Index, 2013 (Health Consumer Powerhouse 2013). To evaluate the relationship between informal patient payments and governance (H2B1) and health system performance (H2B2), the analysed indicators are: the crude death rate per 1000 people (World Bank 2013) and the European Quality of Government Index respectively, the latter including both perceptions and experiences with public sector services, and the index is standardised with a mean of zero, with higher scores implying a higher quality of government (Charron, Dijkstra, and Lapuente 2015).

To evaluate our hypotheses, after using a descriptive analysis, a logistic regression analysis is conducted. Given the significant correlation between death rates and the European Quality of Government Index (see Table A2 in Appendix), the variable investigating death rates is added separately to the individual-level variables (i.e., the Institutional Asymmetry Index and the socio-demographic, socio-economic and spatial control variables) to evaluate whether it is significantly associated with the commonality of informal payments. Below, the findings are reported.

Findings

Of the 5,548 face-to-face interviews conducted in these six Southeast European countries, namely Bulgaria, Cyprus, Croatia, Greece, Romania and Slovenia, 3,446 respondents had visited a public healthcare practitioner or institution in the 12 months prior to the interview, of

whom 16% had made informal payments for receipt of a public healthcare service. As such, in the year prior to the survey, some one in 6 citizens in Southeast Europe visiting a public healthcare institution made informal payments.

Not all countries and not all population groups, nevertheless, display the same propensity to make informal payments for healthcare services. Table 1 reveals that the share of patients reporting informal payments is highest in Romania (30%), Greece (11%) and Bulgaria (8%) and lowest in Croatia (3%), Slovenia (3%) and Cyprus (2%). **Reporting a representative study carried out in 2010, Stepurko et al. (2015b) found a similarly high prevalence of informal payments by patients in the 12 months prior to the survey in Romania (35%) and Bulgaria (12%).** However, patients in Romania and Bulgaria are more likely to give informal payments between 1 and 50 euros (54% and 45% respectively), while patients in Croatia and Greece are more likely to give informal payments exceeding 200 euros (76% and 64% respectively).

[INSERT TABLE 1 HERE]

Not only is the practice of making informal payments concentrated in certain countries, it is also more prevalent in some population groups rather than others. Examining the groups more likely to make informal payments, the finding is that patients aged 25-39 years are more likely to give extra payments or valuable gifts for healthcare services than older patients over 55 years old (20% compared with 13%). Patients in single-person households are more likely than those living with other persons to make informal payments (20% compared with 15%) and employed patients more likely than unemployed patients to make informal payments (19% compared with 13%). So too are patients who face difficulties in paying their bills more likely to make informal payments than those who do not have such difficulties. **These descriptive statistics are in line with previous studies investigating the relationship between informal payments by**

patients and age (e.g. Arsenijevic, Pavlova, and Groot 2015; Balabanova and McKee 2002; Danyliv et al. 2015; Stepurko et al. 2015b; Tomini and Maarse 2011), household size (e.g. Baji et al. 2012; Tomini, Groot, and Pavlova 2012a) or employment status (e.g. Kaitelidou et al. 2013). However, unlike previous studies which revealed an association between informal payments and gender (e.g. Stepurko et al. 2015b; Baji et al. 2012; Balabanova and McKee 2002; Mokhtari and Ashtari 2012), the results in Table 1 seem to not support such an association for this group of countries in Southeast Europe. Nevertheless, these findings are further tested using logistic regressions in Table 2.

To evaluate whether these cross-national and population group variations in informal payments are related with the level of institutional asymmetry, the final columns of Table 1 report the variations in the Institutional Asymmetry Index. This reveals that the Institutional Asymmetry Index is lower (and thus institutional asymmetry is greater) for patients making informal payments (2.40) compared with patients not making informal payments (2.70). The same trend can be identified in the various countries and population groups. Indeed, countries in Southeast Europe where informal payments are more common report higher levels of institutional asymmetry between those making informal payments than those not doing so: 2.39 and 2.73 in Romania, and 2.36 and 2.62 in Greece. Similarly, this is again the case in Croatia with a value of 2.33 for patients making informal payments and 2.67 for patients not making informal payments. Lower levels of institutional asymmetry, meanwhile, exist in Slovenia among those making informal payments than among those not making such payments (2.83 and 2.84). Analysing these descriptive statistics therefore, the tentative finding is that, although ubiquitous across all countries and population groups, informal payments are more common in populations where there is a higher level of asymmetry between formal and informal institutions.

To determine firstly, whether the association between informal payments and institutional asymmetry (H1) is significant when other control variables are taken into account and held constant, and secondly, to investigate the country-level formal institutional imperfections (H2) associated with informal payments, Table 2 reports the results of a logistic regression. The first stage of the analysis involves solely individual-level characteristics and the second stage includes both individual- and country-level variables (see Table A1 in Appendix for details of the variables).

[INSERT TABLE 2 HERE]

The first row in Models 1-4 in Table 2 reveals that greater informal payments is strongly associated with higher levels of institutional asymmetry (i.e., a low Institutional Asymmetry Index) across all models, whether only individual-level variables are analysed, or country-level structural conditions are added (confirming H1). Moreover, Model 1 identifies that patients in single-person households are more likely to make informal payments, and that informal payments are significantly less prevalent among those who have no difficulties in paying their bills. *Similar results were obtained by Stepurko et al. (2015b) when examining informal payments in Hungary, Lithuania and Romania.* Adding spatial variables in Model 2, meanwhile, these results remain the same and in addition, it reveals that patients in Romania, Greece and Bulgaria are significantly more likely to make informal payments. However, no significant correlation with informal payments is found with respect to gender, age, social class, employment status and the type of the community where the patient lives in either model, *as was previously the case in studies conducted by Baji et al. (2012), Kaitelidou et al. (2013), Mokhtari and Ashtari (2012), Riklikiene, Jarasiunaite and Starkiene (2014) or Stepurko et al. (2015b).*

Models 3 and 4 in Table 2 meanwhile, test the formal institutional imperfections hypothesis (H2) regarding the structural conditions that explain the commonality of informal payments. Model 3 reveals that informal payments are more common in countries with lower levels of health expenditure in GDP (confirming H2A1). It also reveals that informal payments are more common in countries in health systems with a low range and reach of services provision (confirming H2A2). Turning to the formal institutional inefficiencies, meanwhile, Model 3 reveals strong evidence that informal payments are more common in countries with lower qualities of government (confirming H2B1) and Model 4 provides strong evidence that informal payments are more common in countries with high death rates (confirming H2B2). **These results are consistent with previous evidence that informal payments by patients are more prevalent in countries with a lower share of public health expenditure, lower quality of healthcare services and lower government effectiveness (Cohen 2012; Gaal and McKee 2005; Gaal and McKee 2004; Tambor et al. 2013).**

To better analyse the relationship between informal payments, institutional asymmetry and formal institutional imperfections, and to help interpret the findings, Figures 1 and 2 present the predicted probabilities of a 'representative' patient in Southeast Europe making informal payments by their level of institutional asymmetry (Figure 1, Figure 2) and various country-level structural conditions (Figure 2). By taking the mean and modal values of other independent variables, the representative patient in Southeast Europe is here a 55+ years-old women in the working class of the society, not working, living in a household with two persons or more, located in a large town, who is having difficulties in paying the household bills and lives in Romania or in a country with average values of the analysed macro-level indicators. As graphically displayed in Figure 1A, as institutional asymmetry decreases, the predicted odds of this representative patient making informal payments becomes smaller. As Figure 1B shows,

this is the case in all six Southeast European countries analysed; as institutional asymmetry decreases, the predicted odds of making informal payments becomes smaller.

Moreover, analysing Figure 2.A-D, the finding is that as institutional asymmetry decreases and country-level structural conditions improve, the predicted odds of the representative patient making informal payments in Southeast Europe becomes smaller. As these graphs clearly and graphically display, patients living in countries with higher expenditure levels on health (Figure 2A), a wider range and reach of health service provision (Figure 2B), higher qualities of government (Figure 2C), and low death rates (Figure 2D) have lower predicted odds of making informal payments. The consequence is that it can be tentatively asserted that formal institutional failings appear to engender greater institutional asymmetry and consequently higher predicted odds of making informal payments.

Discussion

This paper has advanced a new way of explaining the informal payments in the healthcare sector in Southeast Europe. Drawing upon institutional theory, it has displayed that, when formal and informal institutions are not aligned, informal practices emerge embedded in unwritten socially shared rules but which do not adhere to the legal rules. The higher is the asymmetry between formal and informal institutions, the greater is the commonality of such informal practices. Using logistic regression analysis, this has been shown to be the case when solely the individual-level variables are analysed and also when country level variables (i.e. structural conditions related with formal institutional imperfections) are analysed along with the individual-level ones. In consequence, it can be tentatively asserted that formal institutional failings result in an asymmetry between the formal and informal institutions, thus making the use of informal payments in healthcare services more common.

To reduce informal payments therefore, it will be necessary to reduce this institutional asymmetry. This requires changes in not only the norms, practices and beliefs that constitute the informal institutions but also in the formal institutions by tackling the formal institutional imperfections that lead to institutional asymmetry and thus informal payments.

To alter the informal institutions, three policy initiatives can be pursued in Southeast Europe. Firstly, advertising campaigns (targeting the groups identified above with high levels of institutional asymmetry) can be pursued, which for example inform patients of the costs and risks of making informal payments to healthcare professionals. Secondly, normative appeals to both patients and healthcare professionals can be used to curb the tendency to pay for, and ask for, informal payments. Indeed, as shown in previous studies, combining anticorruption measures with normative appeals have been a potent combination for tackling informal payments in some post-socialist countries (Danyliv et al. 2015; Stepurko et al. 2013). And third and finally, education is required to inform citizens and patients about the relationship between paying taxes and public services, so as to display that the benefit of paying taxes is that more money is available to improve public services such as healthcare (e.g., so that higher salaries can be paid). If such educational campaigns were successful, then wages could perhaps rise in the healthcare services and healthcare professionals would no longer feel the need to request informal payments and patients no longer feel the need to make such informal payments.

Seeking to change the norms, values and beliefs of citizens, however, will not alone reduce the asymmetry between formal and informal institutions and thus the commonality of informal payments. Institutional asymmetry results from the existence of formal institutional imperfections and these need addressing if informal payments are to be reduced. As models 3 and 4 in Table 2 reveal, informal payments are more common in systems with low expenditure on health and a lower range and reach of services provision. They are also more common in systems with a lower quality of government and higher death rates. It will be also necessary to

address these structural conditions, therefore, if institutional asymmetry and thus the commonality of informal payments is to be reduced.

Nevertheless, given the sensitive nature of informal payments, the reported percentages in the analysis might be underestimated. Indeed, some respondents might not have answered honestly when asked whether they gave an extra payment or a valuable gift to healthcare staff, apart from official fees. Moreover, this paper has only shown that the asymmetry between formal and informal institutions leads to informal payments by patients, and that institutional asymmetry is a result of formal institutional imperfections. Future analysis would be useful that provide a more in-depth investigation of the norms, values, and beliefs of informal institutions which lead to the institutional asymmetry. This deeper analysis of informal institutions would require collecting more detailed information regarding the norms and values of both patients and healthcare staff which cause institutional asymmetry and thus a high prevalence of informal payments for healthcare services.

Conclusions

In sum, this paper has advanced a new way of understanding informal payments in healthcare services in Southeast Europe. Whether this institutional lens for explaining and tackling informal payments is more widely relevant beyond these six Southeast European countries and valid in other Southeast European countries and other global regions now needs to be evaluated. If this paper helps to stimulate such evaluations, then one of its intentions will have been achieved. If it also encourages governments to recognise how informal payments result from such institutional asymmetry and to begin exploring how this can be tackled, then it will have achieved its fuller intention.

References

- Arsenijevic, J., M. Pavlova, and W. Groot. 2015. Out-of-pocket payments for health care in Serbia. *Health Policy* 119: 1366-74.
- Atanasova, E., M. Pavlova, and W. Groot. 2015. Out-of-pocket patient payments for public health care services in Bulgaria. *Frontiers in Public Health* 3: 175. doi:10.3389/fpubh.2015.00175.
- Baji, P., M. Pavlova, L. Gulacsi, and W. Groot. 2013. Exploring consumers' attitudes towards informal patient payments using the combined method of cluster and multinomial regression analysis - the case of Hungary. *BMC Health Services Research* 13: 62. doi:10.1186/1472-6963-13-62.
- Baji, P., M. Pavlova, L. Gulácsi, and W. Groot. 2011. User fees for public health care services in Hungary: Expectations, experience, and acceptability from the perspectives of different stakeholders. *Health Policy* 102: 255-62.
- Baji, P., M. Pavlova, L. Gulácsi, H.C. Zsófia, and W. Groot. 2012. Informal payments for healthcare services and short-term effects of the introduction of visit fee on these payments in Hungary. *The International Journal of Health Planning and Management* 27: 63-79.
- Balabanova, D., and M. McKee. 2002. Understanding informal payments for health care: the example of Bulgaria. *Health Policy* 62: 243-73.
- Baumol, W.J., and A. Blinder. 2008. *Macroeconomics: principles and policy*. Cincinnati, OH: South-Western Publishing.
- Belli, P., H. Shahriari, and G. Gotzadze. 2004. Out of pocket and informal payments in the health sector: evidence from Georgia. *Health Policy* 70: 109-23.

- Bloom, G., L. Han, and X. Li. 2001. How health workers earn a living in China. *Human Resources for Health Development Journal* 5, no. 1: 25-38.
- Burnett, S., P. Mendel, F. Nunes, S. Wiig, H. van den Bovenkamp, A. Karlun, G. Robert, J. Anderson, C. Vincent, and N. Fulop. 2016. Using institutional theory to analyse hospital responses to external demands for finance and quality in five European countries. *Journal of Health Services Research & Policy* 21, no. 2: 109-17.
- Charron, N., L. Dijkstra, and V. Lapuente. 2015. Mapping the Regional Divide in Europe: A Measure for Assessing Quality of Government in 206 European Regions. *Social Indicators Research* 122: 315-46.
- Chereches, R., M.I. Ungureanu, P. Sandu, and I.A. Rus. 2013. Defining informal payments in healthcare: A systematic review. *Health Policy* 110: 105-14.
- Cohen, N. 2012. Informal payments for health care – the phenomenon and its context. *Health Economics, Policy and Law* 7: 285-308.
- Contandriopoulos, D., and A. Brousselle. 2010. Reliable in their failure: An analysis of healthcare reform policies in public systems. *Health Policy* 95: 144-52.
- Danyliv, A., M. Pavlova, I. Gryga, and W. Groot. 2015. Preferences for physician services in Ukraine: a discrete choice experiment. *The International Journal of Health Planning and Management* 30: 346-65.
- Delcheva, E., D. Balabanova, and M. McKee. 1997. Under-the-counter payments for health care: Evidence from Bulgaria. *Health Policy* 42: 89-100.
- Ensor, T. 2004. Informal payments for health care in transition economies. *Social Science & Medicine* 58: 237-46.
- European Commission. 2014a. Eurobarometer 79.1 (2013), TNS Opinion, Brussels [producer]. GESIS Data Archive, Cologne. ZA5687 Data file Version 1.0.0, doi:10.4232/1.11855.

- European Commission. 2014b. Special Eurobarometer 397 / Wave EB79.1 (2013) [report].
Brussels: European Commission.
- Fareed, N., G.J. Bazzoli, S.S.F. Mick, and D.W. Harless. 2015. The influence of institutional pressures on hospital electronic health record presence. *Social Science & Medicine* 133: 28-35.
- Fomenko, T., and T. Stepurko. 2012. Informal patient payments in oncology practice. *Tobacco Control and Public Health in Eastern Europe* 2: s13-s14.
doi:10.6084/m9.figshare.92826.
- Fotaki, M. 2009. Informal Payments: A Side Effect of Transition or a Mechanism for Sustaining the Illusion of 'Free' Health Care? The Experience of Four Regions in the Russian Federation. *Journal of Social Policy* 38: 649-70.
- Gaal, P., P.C. Belli, M. McKee, and M. Szócska. 2006. Informal Payments for Health Care: Definitions, Distinctions, and Dilemmas. *Journal of Health Politics, Policy and Law* 31, no. 2: 251-93.
- Gaal, P., T. Evetovits, and M. McKee. 2006. Informal payment for health care: Evidence from Hungary. *Health Policy* 77: 86-102.
- Gaál, P., M. Jakab, and S. Shishkin. 2011. Strategies to address informal payments for health care. In *Implementing health financing reforms: lessons from countries in transition*, ed. J. Kutzin, C. Cashin, and M. Jakab, 327-61. Copenhagen: World Health Organization.
- Gaal, P., and M. McKee. 2005. Fee-for-service or donation? Hungarian perspectives on informal payment for health care. *Social Science & Medicine* 60: 1445-57.
- Gaal, P., and M. McKee. 2004. Informal payment for health care and the theory of 'INXIT'. *International Journal of Health Planning and Management* 19: 163-78.

- Habibov, N. 2016. Effect of corruption on healthcare satisfaction in post-soviet nations: A cross-country instrumental variable analysis of twelve countries. *Social Science & Medicine* 152: 119-24.
- Health Consumer Powerhouse. 2013. Euro Health Consumer Index 2013 (Report). Brussels: Health Consumer Powerhouse Ltd.
- Helmke, G., and S. Levitsky. 2004. Informal institutions and comparative politics: a research agenda. *Perspectives on Politics* 2: 725-40.
- Kaitelidou, D.C., C.S. Tsirona, P.A. Galanis, O.C. Siskou, P. Mladovsky, E.G. Kouli, P.E. Prezerakosc, M. Theodoroud, P.A. Sourtzi, and L.L. Liaropoulos. 2013. Informal payments for maternity health services in public hospitals in Greece. *Health Policy* 109: 23-30.
- Kankeu, H.T., and B. Ventelou. 2016. Socioeconomic inequalities in informal payments for health care: An assessment of the 'Robin Hood' hypothesis in 33 African countries. *Social Science & Medicine* 151: 173-86.
- Kutzin, J., M. Jakab, and C. Cashin. 2010. Lessons from health financing reform in central and Eastern Europe and the former Soviet Union. *Health Economics, Policy and Law* 5: 135-47.
- Ledderer, L. 2010. Bringing about change in patient-centred preventive care. *International Journal of Public Sector Management* 23: 403-12.
- Lewis, M. 2002. Informal health payments in central and eastern Europe and the former Soviet Union: issues, trends and policy implications. In *Funding health care: options for Europe*, ed. E. Mossialos, A. Dixon, J. Figueras, and J. Kutzin, 184-205. Buckingham: Open University Press.
- Liaropoulos, L., O. Siskou, D. Kaitelidou, M. Theodorou, and T. Katostarar. 2008. Informal payments in public hospitals in Greece. *Health Policy* 87: 72-81.

- Mæstad, O., and A. Mwisongo. 2011. Informal payments and the quality of health care: Mechanisms revealed by Tanzanian health workers. *Health Policy* 99: 107-15.
- Mokhtari, M., and M. Ashtari. 2012. Reducing informal payments in the health care system: Evidence from a large patient satisfaction survey. *Journal of Asian Economics* 23, no. 2: 189-200.
- Nilashi, M., H. Ahmadi, A. Ahani, R. Ravangard, and O. bin Ibrahim. 2016. Determining the importance of Hospital Information System adoption factors using Fuzzy Analytic Network Process (ANP). *Technological Forecasting & Social Change* 111: 244-64.
- North, D.C. 1990. *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.
- Pavlova, M., W. Groot, and G. van Merode. 2002. Public attitudes towards patient payments in Bulgarian public health care sector: results of a household survey. *Health Policy* 59: 1-24.
- Pfeffermann, D. 1993. The role of sampling weights when modelling survey data. *International Statistical Review* 61: 317-37.
- Rechel, B., C.M. Blackburn, N.J. Spencer, and B. Rechel. 2011. Regulatory barriers to equity in a health system in transition: a qualitative study in Bulgaria. *BMC Health Services Research* 11: 219.
- Riklikiene, O., G. Jarasiunaite, and L. Starkiene. 2014. Informal patient payments in publicly financed healthcare facilities in Lithuania. *Scandinavian Journal of Public Health* 42: 488-96.
- Scott, W.R. (2008). *Institutions and organizations: Ideas and interests*. London: Sage.**
- Sharon, L., and J. Liu. 1994. A comparison of weighted and unweighted analyses in the National Crime Victimization Survey. *Journal of Quantitative Criminology* 10: 343-60.

- Sherer, S.A. 2010. Information Systems and Healthcare XXXIII: An Institutional Theory Perspective on Physician Adoption of Electronic Health Records. *Communications of the Association for Information Systems* 26, no. 7: 127-40.
- Solon, G., S.J. Haider, and J. Wooldridge. 2015. What are we weighting for? *Journal of Human Resources* 50: 301-16.
- Stepurko, T., M. Pavlova, I. Gryga, and W. Groot. 2013. Informal payments for health care services – Corruption or gratitude? A study on public attitudes, perceptions and opinions in six Central and Eastern European countries. *Communist and Post-Communist Studies* 46: 419-31.
- Stepurko, T., M. Pavlova, I. Gryga, L. Murauskiene, and W. Groot. 2015a. Informal payments for health care services: The case of Lithuania, Poland and Ukraine. *Journal of Eurasian Studies* 6, no. 1: 46-58.
- Szende, A., and A.J. Culyer. 2006. The inequity of informal payments for health care: The case of Hungary. *Health Policy* 75: 262-71.
- Tahiri, Z., E. Toci, L. Rrumbullaku, K. Hoti, E. Roshi, and G. Burazeri. 2013. Patients' evaluation of primary health care services in Gjilan region, Kosovo. *Journal of Public Health* 36, no. 1: 161-9.
- Tambor, M., M. Pavlova, S. Golinowska, C. Sowada, and W. Groot. 2013. The formal–informal patient payment mix in European countries. Governance, economics, culture or all of these? *Health Policy* 113: 284-95.
- Tengilimoğlu, D., A. Güzel, A. Toygar, F. Akinci, and S.F. Dziegielewski. 2015. Informal Payments in Health Systems: Purpose and Occurrences in Turkey. *Journal of Social Service Research* 41: 684-96.

- Tomini, S., W. Groot, and M. Pavlova. 2012a. Paying informally in the Albanian health care sector: a two-tiered stochastic frontier model. *The European Journal of Health Economics* 13: 777-88.
- Tomini, S., W. Groot, and M. Pavlova. 2012b. Informal payments and intra-household allocation of resources for health care in Albania. *BMC Health Services Research* 12: 17.
- Tomini, S., and H. Maarse. 2011. How do patient characteristics influence informal payments for inpatient and outpatient health care in Albania: Results of logit and OLS models using Albanian LSMS 2005. *BMC Health Services Research* 11: 375.
- Tomini, S.M., and W. Groot. 2013. Paying informally for public health care in Albania: scarce resources or governance failure? *Applied Economics* 45: 5119-30.
- Vian, T., K. Grybosk, Z. Sinoimeri, and R. Hall. 2006. Informal payments in government health facilities in Albania: Results of a qualitative study. *Social Science & Medicine* 62: 877-87.
- Webb, J.W., L. Tihanyi, R.D. Ireland, and D.G. Sirmon. 2009. You say illegal, I say legitimate: entrepreneurship in the informal economy. *Academy of Management Review* 34: 492-510.
- __Author__. 2016. Title. *Journal of Contemporary Central and Eastern Europe* 24, no. 1: __-__.
- __Author__. 2016. Title. *Eastern Journal of European Studies* 7, no. 1: __-__.
- __Author__. 2015a. Title. *European Journal of Industrial Relations* 21: __-__.
- __Author__. 2015b. Title. *South European Society and Politics* 20: __-__.
- __Author__. 2015c. Title. *Journal of South East European and Black Sea Studies* 15: __-__.
- __Author__. 2016a. Title. *British Journal of Industrial Relations*. doi:__.
- __Author__. 2016b. Title. *International Journal of Social Economics* 43: __-__.

__Author__. 2017. Title. Routledge.

Winship, C., and L. Radbill. 1994. Sampling weights and regression analysis. *Sociological Methods and Research* 23: 230-57.

World Bank. 2013. World DataBank–Health Nutrition and Population Statistics. Available at: <http://databank.worldbank.org/data/reports.aspx?source=health-nutrition-and-population-statistics> [Accessed 20 September 2016].

Table 1. Informal payments and institutional asymmetry in Southeast Europe: by spatial and socio-economic characteristics

	Users of health services (no.)	Informal payments (%)	Informal payment amount (per service)				Institutional Asymmetry Index	
			1-50€	51-100€	101-200€	>200€	Informal payments YES	Informal payments NO
			(%)	(%)	(%)	(%)	-	-
SOUTH-EAST EUROPE	3,446	16	35	12	23	30	2.40	2.70
Romania	465	30	54	14	28	4	2.39	2.73
Greece	608	11	8	0	28	64	2.36	2.62
Bulgaria	631	8	45	22	11	22	2.45	2.69
Croatia	702	3	0	24	0	76	2.33	2.67
Slovenia	737	3	0	0	100	0	2.83	2.84
Cyprus	303	2	35	0	33	32	2.38	2.77
Type of community								
Rural area or village	1,279	16	11	16	42	31	2.49	2.70
Small or middle sized town	896	16	40	25	7	28	2.25	2.71
Large town	1,271	16	52	4	15	29	2.40	2.69
Gender								
Male	1,480	15	36	5	19	40	2.34	2.69
Female	1,966	16	34	17	28	21	2.44	2.70
Age								
15-24 years	343	14	55	0	11	34	2.38	2.70
25-39	736	20	31	9	22	38	2.45	2.71
40-54	842	18	29	16	32	23	2.43	2.70
55+	1,529	13	37	15	23	25	2.32	2.68
Household composition								
One person	601	20	52	3	14	31	2.34	2.71
Two and more	2,845	15	29	15	27	29	2.42	2.69
Social class – self-assessment: the working class of society								
Yes	1,761	16	36	15	22	27	2.41	2.68
No	1,631	15	35	8	26	31	2.39	2.72
DK ¹ / Refusal	54	9	22	0	22	56	2.07	2.67
Employment								
Employed	1,363	19	41	12	22	25	2.43	2.69
Not working	2,083	13	29	12	25	34	2.37	2.70
Difficulties paying bills								
Yes	2,227	17	31	14	23	32	2.41	2.67
No	1,219	14	51	3	25	21	2.36	2.75

Note: ¹ DK: Don't know

Table 2. Logistic regressions of the propensity to make informal payments in Southeast

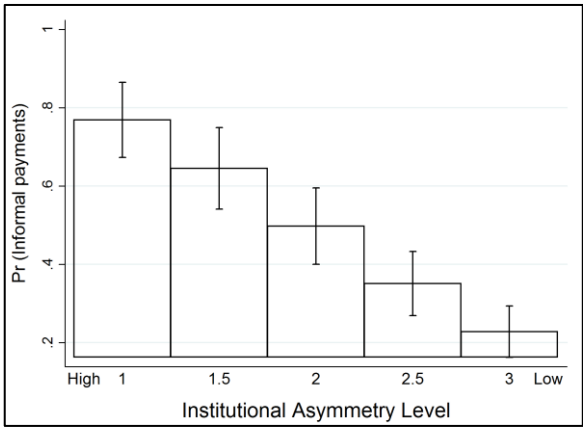
Europe

	Model 1	Model 2	Model 3	Model 4
Institutional Asymmetry Index	-1.322*** (0.121)	-1.217*** (0.128)	-1.253*** (0.124)	-1.291*** (0.121)
Gender (Male)				
Female	0.055 (0.126)	0.125 (0.134)	0.101 (0.131)	0.053 (0.127)
Age (15-24 years)				
25-39	0.358 (0.256)	0.173 (0.257)	0.319 (0.254)	0.378 (0.256)
40-54	0.354 (0.253)	0.244 (0.258)	0.370 (0.254)	0.352 (0.253)
55+	0.030 (0.237)	-0.130 (0.246)	-0.037 (0.241)	-0.033 (0.237)
Household composition (One person)				
Two and more	-0.459*** (0.155)	-0.361** (0.163)	-0.435*** (0.161)	-0.444*** (0.155)
Social class – self-assessment: the working class of society (Yes)				
No	0.130 (0.132)	0.140 (0.137)	0.221 (0.135)	0.176 (0.135)
DK ¹ / Refusal	0.236 (0.464)	0.092 (0.529)	-0.013 (0.490)	0.084 (0.476)
Employment (Employed)				
Not working	-0.071 (0.139)	-0.055 (0.154)	0.040 (0.148)	0.024 (0.141)
Difficulties paying bills (Yes)				
No	-0.336** (0.141)	-0.485*** (0.161)	-0.355** (0.152)	-0.247* (0.144)
Type of community (Rural area or village)				
Small or middle sized town		-0.015 (0.171)	-0.064 (0.165)	-0.026 (0.163)
Large town		0.104 (0.156)	0.090 (0.152)	0.140 (0.147)
Country (Croatia)				
Greece		1.190*** (0.280)		
Cyprus		-0.089 (0.456)		
Slovenia		0.511 (0.312)		
Bulgaria		1.110*** (0.286)		
Romania		2.793*** (0.258)		
Health expenditure, % of GDP (2013)			-0.435*** (0.060)	
Range and reach of services provided ² (2013)			-0.018*** (0.003)	
European Quality of Government Index (2013)			-0.233** (0.111)	
Death rate, crude per 1000 people (2013)				0.167*** (0.028)
Constant	1.327*** (0.408)	-0.182 (0.501)	5.437*** (0.709)	-0.820 (0.537)
N	3,446	3,446	3,446	3,446
Pseudo R ²	0.0678	0.1859	0.1556	0.0839
Log likelihood	-965.1029	-842.8283	-874.2015	-948.3942
χ^2	143.88	314.21	258.63	184.09
p>	0.0000	0.0000	0.0000	0.0000

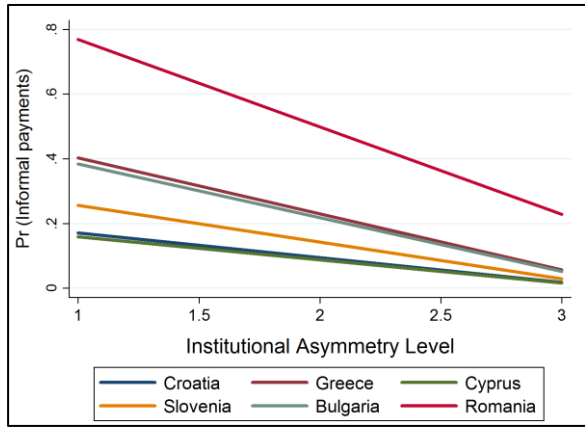
Notes:

Significant at *** p<0.01, ** p<0.05, * p<0.1; Robust standard errors in parentheses; All coefficients are compared to the benchmark category, shown in brackets.

¹ DK: Don't know; ² Sub-discipline in Euro Health Consumer Index (2013).



1A



1B

Figure 1. Predicted probability of making informal payments in Southeast Europe, by Institutional Asymmetry Level and country

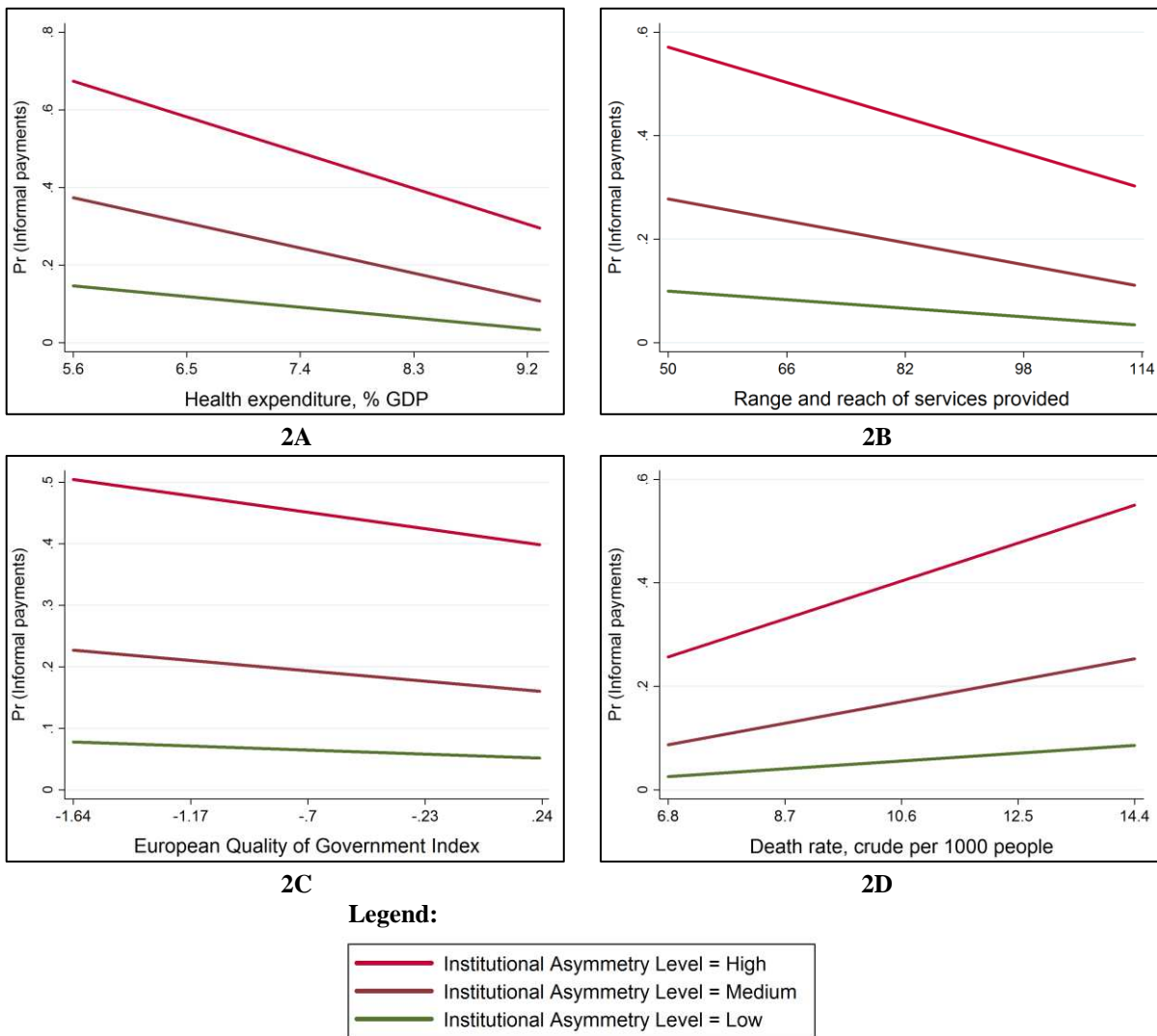


Figure 2. Predicted probability of making informal payments in Southeast Europe, by Institutional Asymmetry Level and formal institutional imperfections

Appendix

Table A1. Descriptive statistics of variables used in the analysis (n = 3,446)

Variables	Definition	Mode or mean	Min / Max
Dependent Variable: Informal Payments	Dummy variable for patient payments in return to public healthcare services (apart from official fees).	No informal payments (84%)	0 / 1
Institutional Asymmetry Index	Constructed index of self-reported acceptability towards three behaviours: to give money, a gift or to do a favour for public services.	2.64	1 / 3
Gender	Dummy for the gender of the patient.	Female (56%)	0 / 1
Age	Patient age in intervals.	55+ years old (40%)	1 / 4
Household composition	Dummy for household size of the patient.	Two and more persons (81%)	0 / 1
Social class: the working class of society	Patients in the working class of society in categories (self-assessment).	Yes (52%)	1 / 3
Employment	Dummy for the employment status of the patient.	Not working (59%)	0 / 1
Difficulties paying bills	Dummy for patient difficulties in paying bills last year.	Yes (67%)	0 / 1
Type of community	Type of the community where the patient lives in categories.	Large town (41%)	1 / 3
Country	Country where the patient lives in categories.	Romania (38%)	1 / 6
Health expenditure, % GDP	Total expenditure on health as a % of Gross Domestic Product.	7.43	5.6 / 9.3
Range and reach of services provided	Sub-discipline in Euro Health Consumer Index, evaluating European health systems by Range and reach of services provided.	69.64	50 / 113
European Quality of Government Index	Perceptions and experiences regarding the quality of government.	-1.28	-1.65 / 0.23
Death rate, crude per 1000 people	The number of deaths occurring during the year, per 1,000 inhabitants.	11.90	6.8 / 14.4

Table A2. Correlations matrix: institutional imperfections

	Health expenditure, % GDP (2013)	Range and reach of services provided (2013)	European Quality of Government Index (2013)
Range and reach of services provided (2013)	0.0661 ***		
European Quality of Government Index (2013)	0.5098 ***	0.5038 ***	
Death rate, crude per 1000 people (2013)	-0.3683 ***	-0.5526 ***	-0.9512 ***

Note: Significant at ***p<0.001