Out-of-pocket patient payments for health care services in Hungary: Past experience and future perspectives

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Out-of-pocket patient payments for health care services in Hungary:

Past experience and future perspectives

Out-of-pocket patient payments for health care services in Hungary: Past experience and future perspectives.

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**Out-of-pocket patient payments for health care
services in Hungary:
Past experience and future perspectives**

Dissertation

to obtain the degree of Doctor at Maastricht University, on the authority of the
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by

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Chapter 1

General introduction

This chapter draws upon:

Baji P, Boncz I, Jenei Gy, Gulácsi L. (2012): Comparing Cost-sharing practices for pharmaceuticals and health care services among four Central European Countries. *Society and Economy*, 34 (2):221–240.

Baji P, Boncz I, Jenei Gy, Gulácsi L. (2010): The short story of co-payments for health care services in Hungary - lessons for neighbouring countries. *Zeszyty Naukowe Ochrony Zdrowia Zdrowie Publiczne i Zarzadzanie*, VIII(1): 37–47.

1.1 The scope of the dissertation

This dissertation is focused on out-of-pocket patient payments for health care services covered by the social health insurance in Hungary. These payments include direct patient payments, both formal, i.e. official user fees or co-payments, as well as informal payments, defined as unofficial cash payments and gifts in kinds given to the health care personnel. In Hungary, official co-payments for health care services (referred to as “user fees”, “formal fees”, and “official fees” in this dissertation) play only a minor role in financing health care, as most of the services covered by the social health insurance are provided free of charge. However, patients regularly pay for health care services directly to the health care provider through informal payment channels (referred to as “informal payments” or “informal patient payments” in this dissertation). In 2007, there was an attempt to implement official user fees for health care services with the policy objectives to control utilization and contain public expenditure, as well as to eradicate informal payments. However, the implementation of these fees met with political resistance and unpopularity among the public, which finally led to the abolishment of user fees one year after their implementation. Since then, politicians have refrained from (re)implementation of such fees to avoid becoming unpopular among the public. These short-lived user fees policies are not unique for Hungary, in Slovakia and the Czech Republic, user fees were also abolished a few years after their implementation (Szalay et al., 2011; Bryndova et al., 2009).

The implementation of user fees for health care services is a frequently applied policy tool to control demand and contain costs. It is also applied to increase resources in health care financing, especially when public resources are limited or the increase of the income related contributions is not feasible or not desirable. During a period of the economic recession, the issue of user fees has become even more relevant as an alternative to increase income related contributions (as this can result in a decrease in the net income of employees and might create a barrier to competitiveness). However, the implementation of official co-payments or user fees has proved to be rather controversial and a sensitive political issue for several reasons. First, the shift of the financing burden from the working population to the actual users of health care services means a shift away from solidarity principles (i.e. not the ability to pay but health care use determines these payments). Furthermore, user fees can create a barrier to access, as those who are less able to pay can forgo the utilization of health care, which can result in higher morbidity (Austvoll-Dahlgren et al., 2008; Atella et al., 2006; Newhouse, 1997; Manning et al., 1987).

In addition, in Hungary, as in other Central and Eastern European (CEE) countries, the existence of informal patient payments makes the implementation of user charges even more challenging. The implementation of user fees is often considered by politicians and policy makers as a potential tool to eradicate, “formalize” informal payments (Stepurko et al., 2010; Schneider, 2008; Ensor, 2004; Lewis, 2000). However, there is

no evidence, which clearly supports this expectation. On the contrary, there is evidence to suggest that patients continue to pay informally after the introduction of user fees (Atanasova et al., 2011; Gaál et al., 2010). In this case, user fees induce a double financial burden on patients, aggravating the existing problems caused by informal payments, and make user fees even more unpopular among the public.

Thus, the complexity and sensitivity of the issue makes the topic of out-of-pocket patient payments for health care services in Hungary challenging, raises plenty of questions to answer and calls for further research. First of all, the elaboration of past experience with user fees is necessary to enable an informed policy discussion on patient payments in Hungary. Some effects of the introduction of user fees have already been reported (e.g. the drop in the utilization of services as well as the revenues collected). However, further evidence is needed on the effects of the implementation of these fees on equity and efficiency, as well as on informal patient payments. Also, experiences with the implementation of user fees in Central and Eastern European (CEE) countries show that the acceptance of patient payments policies by the public is crucial for a successful implementation of the fees (e.g. Szalay et al., 2011; Baji and Gulácsi, 2010; Bryndova et al., 2009; Hall, 2009). Thus, insight in the attitudes and expectations of health care consumers towards these fees is also essential to establish formal patient payment mechanisms acceptable for health care consumers. Evidence on this issue is lacking in Hungary and some questions remain unanswered: Are Hungarian health care consumers really against user fees? If not, on what conditions would these fees be more acceptable? Would health care consumers be willing to pay official user fees for health care services? Or do they prefer to pay informally, which makes user fees less acceptable? The literature provides deep knowledge about the phenomenon of informal payments in Hungary. However, little is known about the relation between formal and informal payments. This relation should be taken into account when implementing policies on formal charges.

The purpose of this dissertation is to provide more knowledge and insight on out-of-pocket patient payments for health care services in Hungary by exploring past experiences as well as the public acceptance of user fees. It provides evidence for further policy discussion on the implementation of user fees and on the interrelation between formal and informal patient payments. Although this dissertation is focused on Hungary, its relevance is not exclusive for the Hungarian context, the topic is relevant for other countries facing similar challenges with out-of-pocket patient payments as well, especially in the CEE region.

In this introductory chapter, we provide a short overview of the Hungarian health care system, as well as of out-of-pocket patient payments in Hungary. After that, we present the research objectives and the outline of the dissertation.

1.2 Brief overview of the Hungarian health care system

1.2.1 Organization of the health care system

The Hungarian health care system is financed based on a mandatory social health insurance mechanism. The health insurance system is funded by income-related social health insurance contributions. The contributions of those who are eligible for services, but are not obligated to pay contributions (e.g. children under the age 18, students, pensioners, disabled people, women on maternity leave) are covered by the state budget. Health insurance contributions are pooled in the Health Insurance Fund (HIF), which is administered by the National Health Insurance Fund Administration (NHIFA), the single health insurance payer in Hungary. NHIFA covers the recurrent costs of health services, and finances certain cash benefits, such as sick pay, child care and maternity benefits. Capital costs have to be covered by the owners of the health care facilities, usually the local or the central government. The central government also finances public health programmes and vaccination, emergency ambulance services, blood supply as well as high-cost and high-technology treatments.

The HIF is divided into more than 30 sub-budgets according to the type of service. Primary care is mostly organized based on private practices and reimbursed by the NHIFA on a capitation base. Patients are allowed to choose their family doctor freely, but may only switch to a new family doctor once a year. Family doctors have a gatekeeper role in the system, a referral from the GP is needed to visit a specialist except for some services (e.g. dermatological, gynaecological, laryngological, ophthalmological psychiatric services). Out-patient specialist services are provided by polyclinics, dispensaries, municipal hospitals, county hospitals, clinical departments of universities. A fee-for-service point system works as a basis for financing out-patient specialist care. Acute in-patient care is financed based on diagnosis-related groups, while chronic care is based on per diem rates. The vast majority of polyclinics and hospitals are owned by municipalities or the state. Regarding the health care personnel, physicians are either employees or private entrepreneurs contracted by the NHIFA, while other health professionals are mostly paid by salary (Gaál et al., 2011). More details on the organization of the Hungarian health care system can be found in Gaál et al., 2011; Boncz et al., 2004; Gulácsi et al., 2002a; Gulácsi, 2001.

1.2.2 Health care financing

Since the political changes in Hungary in 1989, total health care expenditure has been fluctuating between 6.8 percent of GDP in 1996 and 8.6 percent of GDP in 2003 (OECD Health Data, 2012), as increases were followed by declines due to cost-containment measures and budget cuts (Gaál et al., 2011), see Figure 1.1. According to the latest available statistic, in 2010, Hungary spent 7.8 percent of GDP on health

care, which was lower than the average of OECD countries (9.1 percent), but similar to other CEE countries (e.g. Czech Republic 7.5 percent and Poland 7.0 percent) (OECD Health Data, 2012).

Figure 1.1 *Health care expenditure per capita and the share of public resources for health care in Hungary, 1991-2010*

Source: OECD Health Data, 2012

Public financing

The major part of health care expenditure, 64.8 percent in 2010, is covered by public resources, i.e. by income-related health insurance contributions and tax revenues from the central government budget. However, the share of these resources has been decreasing for the last decades from 6.3 percent of the GDP in 1991 to 5.1 percent of the GDP in 2010.

While the level of the health insurance contribution has decreased during the last decades (from 23.5 percent to 8 percent of the gross income), the reliance on general and local taxes has increased. At the moment, the central government budget is the source of more than half of the public expenditure (Gaál et al., 2011). As mentioned before, the central government covers the insurance contribution of those who are not entitled to pay, finances some services, and also contributes to the capital costs of providers. Besides, the central government budget covers any shortfall of the NHIFA, which has led to an increased burden on the state budget (Gaál et al., 2011).

Figure 1.2 Revenue and expenditure of the National Health Insurance Fund Administration in Hungary, 1993-2011

Note: Amounts are in billion HUF, real values on 2008 price level. The exchange rate in 2012 is approximately 1 EUR = 300 HUF in 2012. Data for 2010 and 2011 are official estimates.

Source: ESKI, 2012a; ESKI, 2012b.

The NHIFA has been facing continuous deficits since its foundation in 1993. The deficit varied from 3.4 percent of total revenue of the Fund in 1994, with the highest level of 31.2 percent of total revenue (or 23.8 percent of total expenditure) of the Fund in 2005. The cumulative deficit amounted to 1,500 billion HUF (c.a. 6 billion EUR) in 2005, which is equal to the annual budget of the Fund (Boncz and Sebestyén, 2006). From time to time, cost-containment measures both on the revenue and the expenditure side were carried out to control the deficit, such as the increase of health insurance contributions, the extension of entitlements, the shrinkage of the scope and depth of coverage as well as structural reforms in health service provision, changes in the provider payment mechanisms and the regulation of the pharmaceutical market. However, the deficit could be controlled only for short periods of time, and continued to increase during the periods characterized by loose fiscal policy, which usually coincide with the election periods (Boncz and Sebestyén, 2006), see Figure 1.2.

Private financing

In parallel with the decrease of public resources, the role of private resources has been increasing from 0.8 percent of GDP in 1991 to 2.7 percent of the GDP in 2010 (see Figure 1.1). Most of these payments are out-of-pocket payments, the role of voluntary health insurance is minor (9.1 percent of the total health expenditure). The share of out-of-pocket payments in total health expenditure has increased considerably during the last decades, and has reached 26.2 percent in 2010 (see Figure 1.3). This level is relatively high compared to the OECD average (20.1 percent), and one of the highest among European OECD countries (following Greece with 38.4 percent, and Portugal

with 26.0 percent). The increase in out-of-pocket expenditure was mostly the result of measures, which shifted costs to the consumers, i.e. the implementation and extension of official co-payments as well as the exclusion of some risks and products from the coverage of the social health insurance (see in Section 1.3)

Figure 1.3 *The increase of out-of-pocket payments in Hungary, 1991-2010*

Source: OECD Health Data, 2012

In total, out-of-pocket payments (formal and informal) represent an increasing part of household expenditure, 4.7 percent in 2010. Households contribute to the health care cost through different payment channels. According to the statistics of the Central Statistical Office the major part of these payments (80.4 percent in 2010) consists of expenditures on pharmaceuticals and medical aids (see Table 1.1). The remaining part represents payment for health care services, i.e. direct payments for health care services purchased on the private health care market (which is developed in the case of dental treatment, gynecology, ophthalmology or diagnostics) as well as formal and informal patient payments for health care services covered by the social health insurance. Table 1.1 presents the pattern of out-of-pocket health care expenditure.

Table 1.1 *Household expenditure on health care in Hungary, 2000-2010*

Household expenditure	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Health Care Total (HUF)	13719	17059	19304	22412	24519	26502	26577	30772	33300	34969	37084
% of total household expenditure	3,4%	3,6%	3,7%	3,8%	3,8%	3,9%	3,7%	4,2%	4,3%	4,5%	4,7%
The share in total household expenditure on health care spent on:											
Medicine (%)	61%	65%	70%	65%	65%	66%	65%	69%	71%	71%	71%
Medical aids (%)	10%	13%	12%	17%	16%	10%	11%	10%	10%	9%	9%
Physician care (%)	8%	10%	10%	8%	7%	7%	8%	7%	5%	5%	6%
Dental care (%)	19%	6%	4%	4%	4%	9%	10%	9%	7%	7%	7%
Other out-patient care (%)	1%	1%	1%	1%	3%	3%	1%	1%	2%	1%	1%

Source: Central Statistical Office, 2012

1.2.3 Challenges in the health care system

According to the OECD Economic Surveys, Hungary has serious problems with the outcome of the health care system (Eris, 2012; OECD, 2012). Despite the substantial increase during the last decade, life expectancy at birth in Hungary is the lowest among OECD countries (74.3 years, the same as in Turkey), five years less than the EU27 average and about six years less than the OECD average (Gaál et al., 2011; Eris, 2012). Non-communicable diseases are the leading cause of morbidity and death. In particular, ischemic heart diseases, stroke and cancer mortality rates in Hungary were among the highest in the OECD in 2009 (Eris, 2012). These health outcomes are not in line with the development of the country neither with the level of health care expenditure, which indicates the limited effectiveness of the system (OECD, 2012).

The utilization of services is among the highest in OECD countries. The number of physician visits was the highest among European OECD countries, (11.4 per person per year, double the OECD average of 6.4) and hospital discharges are exceeding the OECD average by nearly 20 percent in 2009 (Eris, 2012; OECD Health Data, 2012). There is some evidence on the poor quality of the provided services, however the number of available health care quality indicators for Hungary is limited (Eris, 2012; OECD, 2012). Previous studies have provided evidence on the use of less effective technologies and the inappropriateness of care (Gulácsi et al., 2011; Makai et al., 2009; Wagner et al., 2006; Gulácsi et al., 2004; Gulácsi et al., 2002b; Gulácsi, 2001; Gulácsi et al., 2000). Furthermore, quality problems can also be explained by the limited resources and the lack of investments in health care facilities. Investment decisions are separated from the utilization of services (i.e. NHIFA covers only the running costs of providers, while owners are responsible for the capital costs), which can contribute to the decline in service quality (OECD, 2012).

Furthermore, the outflow of the health care workers is also a pressing issue in Hungary. In 2010, the number of physicians per 1000 population was 2.9, slightly lower than the OECD average (3.1), while the density of nurses (6.2) is well below the OECD average (8.7). The emigration of health care workers is motivated by the low salary levels, which are below the average salary in the economy (Eris, 2012; Eke, 2011). Last, but not least, the practice of informal payments is also identified as one of the main challenges in the system, as these payments undermine policy objectives, which lead to inefficient use of the resources and unequal access to services (see more information on informal payments in Section 1.3.2).

To conclude, according to the evaluative of the OECD, health care reforms should address the efficient use of current resources in the health care system in the short run, and as a medium term goal an increase in available resources would be necessary to significantly improve health outcomes and the quality of services (OECD, 2012). Furthermore, fighting corruption and retaining health care professionals should be also enhanced (Eris, 2012; OECD, 2012).

1.3 Out-of-pocket payments in health care financing

1.3.1 Official co-payments

As mentioned before, the increase in out-of-pocket expenditure in the last decades was mostly the result of measures, which shifted costs to the consumers, i.e. the implementation and extension of official co-payments as well as the exclusion of some risks and products from the coverage of the social health insurance.

The first attempts to shift costs to patients in order to contain public expenditure included the increase of co-payments for pharmaceuticals and medical aids, as well as a decrease of entitlements for subsidized pharmaceuticals (Gaál et al., 2011). Due to these changes, patient co-payments for pharmaceuticals have increased considerably and they represent the major part of out-of-pocket household expenditure on health care. At the moment, patients are obliged to pay co-payments for the vast majority of the drugs prescribed. The “*Act on the secure and efficient supply of pharmaceuticals and medical aids and on the general rules of pharmaceutical trade*” adopted by Parliament in 2006 defines the reimbursement categories for pharmaceuticals as well as the subsidy rates for drugs in each category. In the category of “*indication dependent drugs*” (physicians with a special permit or recognition are authorized to prescribe these medications) there are four subsidy categories: 50, 70, 90 percent and 100 percent for drugs for life-threatening chronic conditions and orphan drugs in selected indications, with the co-payments of 50, 30 and 10 percent of the full price. For drugs which are 100 percent subsidized a 300 HUF (~1 euro) fixed fee per box should be paid since 2007. Drugs that belong to the category of “*normative reimbursement*” (i.e. drugs for chronic diseases, that all physicians are authorized to prescribe) patient co-payments account for 15, 45 and 75 percent of the price. In addition to these categories, reference pricing (both generic and therapeutic reference pricing) is also used, where the difference between the reference price and the actual price should be paid by the patients. In Hungary, some patients with a special certificate (i.e. low-income or disabled whose medical expenses exceed a certain limit) have the right to get prescribed medicine for free, but the amount should not exceed a certain budget (max. 12000 HUF ~ 42 euro) per months. The increase of co-payments for pharmaceuticals and medical aids is continuous and substantial. Recently, according to the policy objectives, a 47 percent cut of the public pharmaceutical budget is to be carried out till 2013, during a two years period, which can contribute to the further increase of out-of-pocket payments (Gulácsi et al., 2012).

Regarding health care services, slower and minor changes have characterized the last decades. Some risks have been excluded from the benefit package and official co-payments were implemented for some services. In 1995, for example, the cost of

some treatments (e.g. tooth-preserving dental services¹) was not covered any more by the social health insurance and co-payments for patient transportation were introduced. Since 1997, Act LXXXIII of 1997 on the *Services of Compulsory Health Insurance* and related decrees define a negative list of services, which are not covered by the social health insurance or require official patient co-payments/user charges (Gaál et al., 2011).

At the moment, besides the co-payments for pharmaceuticals and medical aids, co-payments are only applied for prostheses, balneotherapy (spa-treatment), dental prostheses, treatment in sanatoria, long-term chronic care and in in-patient care (e.g. for hotel services, i.e. extra meals and accommodation). Furthermore, co-payments are charged if: (1) patients use non-emergency specialist services without a referral from their GP; (2) patients choose to visit a provider other than the one they were referred to (excluding delivery and maternity care); and (3) when patients desire more services than those prescribed by their physician (based on Act CLIV of 1997 on Health and Act LXXXIII of 1997 on the Services of Compulsory Health Insurance, Government Decree No. 284/1997 (XII. 23.) on the Fees for Certain Health Services which Can Be Utilized with Co-payments Only).²

However, Hungary has an interesting experience with the implementation of user fees. In 2007, official user fees were introduced for the use of health care services covered by the social health insurance. The introduction of these fees was one element of the reform package, defined by the Convergence Program of Hungary (Government of the Republic of Hungary, 2006). The objective of the Convergence Program was to cut the increasing government deficit in order to meet the Maastricht criteria of the EU for joining the Euro zone³. According to the policy objectives, the introduction of user fees was expected to control the utilization of health care services, decrease the high number of “unnecessary visits” (see above) and diminish informal payments, which are widespread in Hungary (Ministry of Health, 2006). See more details on informal payments in Section 1.3.2.

Although the amount of the fees was relatively low (about one euro per physician visit and per day spent in hospital), the implementation met with strong political opposition and unpopularity among the public. One year later, in April 2008, the payments were abolished as a result of a population referendum initiated by the opposition party in

1 In 1996, tooth-preserving dental services were reintroduced into the benefit package with some co-payments. The next government abolished co-payments for tooth preserving dental treatments in 2001 (Gaál et al., 2011).

2 In addition „Special rules apply to a few services, such as infertility treatments, for which the number of attempts covered by HIF is limited. Excluded services: medical examinations required to certify an individual's fitness to drive or hold firearms; treatments for aesthetic or recreational purposes; cosmetic surgery; massage; abortion or sterilization without medical indication, and the prostate-specific antigen test for screening purposes are not covered as well as treatments with not proven effectiveness in improving health (not included in the International Classification of Procedures in Medicine, introduced in 1976 by WHO). Since 2007, treatment for injuries resulting from extreme sport activities and vaccinations that are not part of the government's mandatory immunization program are also not covered by public sources.” (Gaál et al., 2011, p. 73-74).

3 The ratio of the annual government deficit to gross domestic product must not exceed 3% at the end of the preceding fiscal year and the total state debt not more than 60% of GDP (European Commission, 1992).

parliament, where more than 80 percent of the voters supported the abolishment of the fees. During this one year period, the number of visits as well as days spent in hospital dropped by 15-20 percent (Boncz et al., 2008; Kőrösi et al., 2009; Nagy et al., 2009). The amount of revenues generated by the user fees was estimated to 20-21 billion HUF (Ministry of Health, 2008), i.e. 4-5 percent of public health care expenditure.

Since the abolishment of these fees, most of the health care services covered by the social health insurance have been provided free of charge for consumers, however, patients regularly pay informally for health care services to the health care personnel.

1.3.2 Informal patient payments for health care services

Although the role of official user fees for health care services is limited, Hungarian patients are regularly paying for health care services through informal payment channels. Informal payments (called “gratitude payments” in Hungary) are especially widespread in in-patient care, where around half of the patients pay informally to health care personnel (Gaál et al., 2006b; Szende and Culyer, 2006; Bognár et al., 2000). Some authors consider these payments as the heritage of the socialist system, while others argue that these payments existed even before the socialist period (Mihályi, 2004; Angelus, 1996; Andréka, 1995; Ajkay, 1994; Antal, 1992; Adám, 1989; Adám, 1986). Nevertheless, these payments are still widespread in Hungary even after the 20-years transition period.

There are different explanations of the motivation to pay and accept informal payments. The literature suggest that these payments are not only an expression of gratitude of the patients, but they rather work as a “fee-for-service” for better quality care (e.g. more personal attention, quicker access) (Gaál et al., 2005). Gaál and McKee (2004) argue that these payments can be interpreted as a reaction to the declining performance of the health care system (Gaál and McKee, 2004), while the Medical Chamber in Hungary explains these payments by the low salary of physicians and the dysfunctioning of the health care system⁴.

There are various estimations about the magnitude of informal payments (Gaál et al., 2006b; Szende and Culyer, 2006; Bognár et al., 2000). Gaál et al. (2006) compare these statistics and estimate that they amount to 16.2-50.9 billion HUF (64.8-203.6 million euro), i.e. 1.5-4.6 percent of the total health expenditure. Informal payments contribute to the income of the health care personnel, however they are rather unequally distributed between them. According to the same estimations, 5 percent of the physicians receive 60 percent of the informal payments (Gaál et al., 2006b).

The literature on informal payments suggests that these payments violate the transparency of health care financing and the accountability of providers, which results

⁴ Available at: http://www.mok.hu/upload/mok/document/MOK_etikai_kodex.pdf. Accessed: 07-07-2012.

in an inefficient use of health care resources (Ensor, 2004; Gaál and McKee, 2004; Lewis, 2002) and inequalities in access to health care (Szende and Culyer, 2006; Balabanova et al., 2004; Mastilica and Bozиков, 1999). Furthermore, informal payments create adverse incentives for their beneficiaries which can be in conflict with the government's policy objectives. The beneficiaries might have the power to block important changes in health care system to maintain the status-quo (Gaál et al., 2006a). Thus, in the last decades, several Ministry Committees and policy measures (including media campaigns against informal payments, the increase in salaries in the public sector as well as the introduction of official user fees for health care services) have addressed the problem of informal payments in Hungary without appreciable results (Bognár et al., 2000).

1.4 The research aims of the dissertation

Given the relevance of research on out-of-pocket payments as outlined above, the goal of this dissertation is to study out-of-pocket patient payments (including both formal and informal payments) for health care services covered by the social health insurance in Hungary.⁵ The main aims of the dissertations are formulated as follows:

- 1) To show the lessons to be learned from the experience with the implementation of user charges in 2007.
- 2) To identify challenges and perspectives for patient payments in the future, focusing on the public attitudes toward patient payments (formal and informal), as well as on the willingness of the health care consumers to pay official fees for health care services.

The first research aim focuses on the past experiences with user fees. It is already known from previous studies that the introduction of user fees has resulted in a 15-20 percent drop of the utilization of health care services (Kőrösi et al., 2009; Nagy et al., 2009; Boncz et al., 2008). This dissertation, addresses other questions related to this reform, which have not been analyzed before. In particular, the research focuses on the impact of these fees on equity and the effect of these fees on informal payments of health care consumers.

The second research aim is more focused on the future perspectives of patient payments in Hungary. As suggested by previous research (as well as past experiences), public acceptance is crucial to the successful implementation of user charges (Tambor et al., 2011; Rechel and McKee, 2009; Hall, 2009). Therefore, the dissertation aims to reveal the experiences and expectations of health care actors towards user

5 Patient payments for health care services cover both formal and informal payments paid directly at the use of health care services. User fees are defined as direct official payments charged from patients for the use of health care services covered by the social health insurance. Informal payments are defined as unofficial payments and gifts in kinds given to the health care personnel.

fees for services as well as the acceptance of these fees, which might explain their unpopularity among the public. The willingness of Hungarian health care consumers to pay formally for health care services as well as their preferences for different service attributes are also in the focus of this dissertation.

Talking about the implementation of user charges in Hungary, we cannot avoid taking into account the existence of informal payments. In this dissertation, special attention is paid to the relation between formal and informal payments when analyzing the two main research questions defined above. When analyzing past experiences with the health care reforms carried out in 2007, one of the main research objectives is to examine the changes in the distribution of informal payments in the context of increasing official fees, as well as the effect of the introduction of user fees on the probability of paying informally. Regarding public acceptance of patient payments, we aim to examine attitudes and perspectives towards informal payments as well, in order to better understand why these payments are still widespread. Moreover, we examine the link between the willingness to pay formally and past informal payments, which can help to identify whether consumers prefer to pay formally or informally.

1.5 The relevance of the dissertation

The results of the dissertation have policy relevance and implications. The exploration of past experiences with the implementation of user fees (the first research aim) might serve as a lesson for policy makers in the future to develop sustainable policies on patient payments. Furthermore better insight in the attitudes and expectations of health care consumers towards these fees (i.e. objective, scope, measure, exemptions) can help to establish policies that are more acceptable for health care consumers. The results also provide information about consumer preferences and the social values of the improvement of services derived from willingness to pay estimates, which can be relevant for the NHIFA and other funders (i.e. the local and central governments) to identify investment priorities in the system. However, as this dissertation focuses on the issue of patient payments (user fees and informal payments) for publicly financed health care services, our results might be useful regarding other forms of private financing as well. Some of the results, especially on the willingness to pay and consumer preferences, can be relevant for the private market of services as well as for voluntary health insurance. The extension of the private health insurance market is also an important issue in Hungary, as since the beginning of 2012, the government offers tax-subsidies for companies to purchase private health insurance for their employees.

Although this dissertation is focused on Hungary, the topic is relevant in a broader geographical context, especially for CEE countries. These countries have been facing similar challenges during the last decades concerning the transition of the health

care system, and the continuous financial problems of their health insurance funds (Bryndova et al., 2009; Rechel and McKee, 2009; Kuszewski and Gericke, 2005; Hlavačka et al., 2004). Among the CEE countries, we also find similarities with Hungary regarding the structure of health care financing, e.g. the increasing and relatively high share of out-of-pocket payments in health care financing, which is driven by expenditures on medicine as well as the wide spread informal payments. Furthermore, similarly to Hungary, in the Czech Republic and Slovakia user fees were also revoked a few years after their implementation due to political resistance in both countries.

1.6 The outline of the dissertation

The dissertation is divided into three main parts, each part containing two Chapters. The first part focuses on the past experiences with patient payments during the reform period 2006-2007. The second part considers the attitude of the population towards formal and informal patient payments. The third part reveals the willingness of health care consumers to pay formal fees for health care services.

In Chapter 2, we examine the equity effects of the reforms carried out in 2007 in Hungary. This issue has not yet been analyzed in previous studies. Based on the existing literature, we expect that out-of-pocket payments are regressive, i.e. lower-income households pay a relatively higher share of their income on health care than better-off households (de Graeve and van Ourti, 2003; van Doorslaer et al., 1999; Wagstaff et al., 1999; Wagstaff and van Doorslaer, 1992). Furthermore, previous experiences suggest, that reforms which aim to increase official co-payments, lead to a relatively greater burden on worse-off households (de Graeve and van Ourti, 2003; Wagstaff and van Doorslaer, 1992). We test these expectations in Chapter 2.

First, we review the reform arrangements focusing on the changes in patient payment mechanism. After that, we present the scope and magnitude of out-of-pocket payments in Hungary (separately for expenditures on pharmaceuticals, formal payments and informal payments for health care services) as well as the distribution of these payments before during and after the reform period. We examine the changes in the progressivity of these payments during a four year period (2005-2008) using data on household expenditure from the Household Budget Survey carried out by the Central Statistical Office of Hungary every year. We calculate Kakwani indexes as the measure of inequality.

In Chapter 3, we focus on the effect of the introduction of user fees in 2007 on informal payments. As mentioned before, in CEE countries, where informal payments are widespread, the introduction of user fees is also motivated by their potential to eradicate or “formalize” informal payments (Ensor, 2004; Lewis, 2000; Schneider, 2008; Stepurko et al., 2010). In Hungary, one of the main policy objectives of the

introduction of user fees in 2007 was also to diminish informal payments. In Chapter 3, we address this issue, and examine whether the introduction of user fees affected informal payments of health care consumers as expected by the policy makers.

For the analysis, we use cross-sectional data collected in a household survey carried out in April 2007 - two months after the implementation of user fees - to study the short term effect of the introduction of user fees. We present the pattern of informal payments in primary, out-patient specialist and in in-patient care in the period before and shortly after user fees for health care services were introduced. We also examine whether we can observe a change in the probability of paying informally in the short run using probit regression analysis.

In Chapter 4, we focus on the attitude of health care stakeholders towards user fees. No previous research has been carried out on the expectations and acceptance of user fees in Hungary. Experiences of health care actors with user fees introduced in 2007, has not been reported either. However, the Hungarian example with user fees also shows that public acceptance is crucial to the successful implementation of these fees. We expect that the analysis of the experiences, the expectations of health care actors towards these fees, as well as their acceptance, can explain the outcome of the population referendum. Moreover, the results can help to establish policies that are more acceptable for the public in the future.

In the analysis, we combine qualitative and quantitative methods to reveal the experiences and expectations of health system stakeholders in Hungary related to user fees as well as their approval of such fees. Qualitative as well as quantitative data collected in 2009 during focus-group discussions with health care consumers and physicians, and in-depth interviews with policy makers and health insurance representatives are used. To examine experiences, expectations as well as acceptance of formal fees, we use content analysis of transcripts. We combine qualitative methods with cluster analysis, to identify the main attitude groups. Quantitative data are derived from a questionnaire which was filled in by the participants and respondents.

In Chapter 5, we analyze the attitudes and perceptions of health care consumers towards informal payments. One of the reasons that informal payments are still widespread might be that these payments are tolerated or even accepted by health care consumers. Based on previous literature, we expect that informal payments are a reaction to the declining performance of the health care system, as dissatisfied health care consumers who have no possibility to satisfy their needs elsewhere are using informal channels to obtain services with better quality or access (Gaál and McKee, 2005). A better understanding of the perception of the population, can explain why informal payments are still widespread in Hungary even 20 years after the change of the socialist regime. The results can also help to work out solutions for the eradication of these payments.

To analyze perceptions of informal payments, we use data from a quantitative household survey carried out as part of an international research project in 2010 on a representative sample of 1037 respondents (see Appendix A for more details). To identify main perception groups of informal payments, we combine cluster analysis with multinomial logistic regression.

In **Chapter 6 and Chapter 7**, we apply stated preference methods to elicit the willingness of Hungarian health care consumers to pay formal fees for the improvement of health care service attributes. Based on previous studies in CEE countries, we expect that health care consumers are not against paying an extra contribution to the cost of health care services if they are provided with better quality or access (Pavlova et al., 2003, Baji and Gulácsi, 2010). Informal payments by the population also indicate a willingness of health care consumers to pay for improved quality and access.

For the analysis, we use the same dataset as was used in Chapter 5. The quantitative household survey included contingent valuation and discrete choice experiment tasks in order to reveal the willingness of health care consumers to pay user fees.

In **Chapter 6**, a contingent valuation method is used to elicit information on the willingness of the Hungarian health care consumers to pay officially for health care services. Besides, a bivariate probit model is applied to examine the relationship between willingness to pay and past informal payments.

In **Chapter 7**, we use data from a discrete choice experiment included in the survey, to elicit preferences of health care consumers about the choice of health care providers. We estimate the effect of the improvement of service attributes (quality, access, and price) on patients' choice, as well as the differences in preferences among different socio-demographic groups. We also estimate the marginal willingness to pay for the improvement in attribute levels by calculating marginal rates of substitution.

Finally, **Chapter 8** is devoted to the general discussion of the research results. In this chapter, we summarize and discuss the main findings following the research aims of the dissertation. The chapter also outlines the policy implications of the results, as well as prospects for further research.

Chapter 2

Changes in equity in out-of-pocket payments during the period of health care reforms – evidence from Hungary

This chapter draws upon:

Baji P, Pavlova M, Gulácsi L, Groot W. (2012): Changes in equity in out-of-pocket payments during the period of health care reforms: evidence from Hungary. *International Journal for Equity in Health*, 11(1):36.

Abstract

Background: At the beginning of 2007, health care reforms were implemented in Hungary in order to decrease public expenditures on health care. Reforms included the increase of co-payments for pharmaceuticals and the introduction of co-payments for health care services.

Objective: The objective of this chapter is to examine the progressivity of household expenditure on health care during the reform period, separately for expenditures on pharmaceuticals and medical devices, and expenditures on formal and informal patient payments for health care services.

Method: We use data on household expenditure from the Household Budget Survey carried out by the Central Statistical Office of Hungary. We present household expenditure as a percentage of household income across different income quintiles and we calculate Kakwani indexes as a measure of progressivity for a four years period (2005-2008): before, during and after the implementation of the health care reforms.

Results: We find that expenditures on pharmaceuticals and medical devices are the most regressive types of expenditure (Kakwani index $-0.23/-0.24$), and at the same time, they represent the major part of the total household expenditure on health care (78-85 percent of total out-of-pocket household expenditure on health care). Informal payments are also regressive, while expenditures on formal payments for services are the most proportional to income. We find that expenditures on formal payments became regressive after the introduction of user fees (Kakwani index -0.1). At the same time, we observe that expenditures on informal payments became more proportional during the reform period (Kakwani index increases from $-0.20/-0.18$ to -0.12).

Conclusion: More attention should be paid on the protection of low-income social groups when increasing or introducing co-payments especially for pharmaceuticals but also for services. Also, it is important to eliminate the practice of informal payments in order to improve equity in health care financing.

2.1 Introduction

Out-of-pocket payments already represent a considerable part of total health care expenditure in Central and Eastern European (CEE) countries (de Graeve and van Ourti, 2003). However, reform arrangements, intended to decrease public expenditure on health care, often lead to the further increase of out-of-pocket payments in health care financing. According to the results of previous studies, out-of-pocket payments are a regressive means of financing health care (e.g. Doorslaer et al., 1999; Wagstaff et al., 1999; van Wagstaff and van Doorslaer, 1992). Thus, households with lower-income spend a relatively higher share of their income on health care than those with higher income. This is in conflict with the European health policy targets, which argue that the ability to pay rather than the health status should determine health care payments. In other words, the distribution of health care payments should be in line with the distribution of households' income rather than with the actual consumption of health care (e.g. de Graeve and van Ourti, 2003; Wagstaff et al., 1999). Reform arrangements, which lead to the increase of out-of-pocket payments in health care financing, might lead to even higher differences between income groups, inducing a greater burden falling on the worse-off households (Gelormino et al., 2011; Albreht and Klazinga, 2009; Mastilica and Bozikov, 1999).

In this chapter we analyze the progressivity of households' out-of-pocket payments for health care in Hungary, where at the beginning of 2007, health care reforms were carried out in order to decrease public expenditures on health care. Besides structural and regulative arrangements, the austerity measures resulted in increased patient co-payments for pharmaceuticals and in the introduction of co-payments for using health care services.

The aim of this chapter is to examine the progressivity of household expenditure on health care during a four years period (2005-2008): before, during and after the implementation of the health care reforms. We are particularly interested in whether we can observe significant changes in the distribution of household expenditure on health care across income groups after the implementation of the reforms. For the analysis, we use data from the Household Budget Survey carried out by the Central Statistical Office of Hungary⁶. We consider total household expenditure on health care as well as its comprising elements, namely expenditures on pharmaceuticals and medical devices, and on formal and informal patient payments for health care services. Kakwani indexes by types of expenditures are estimated to indicate the progressivity of household expenditure on health care (see Kakwani et al., 1997; Kakwani, 1977).

Our study provides evidence on how austerity measures in the health care system, such as those carried out in Hungary at the beginning of 2007, can affect the progressivity of households' out-of-pocket payments and whether the changes can

6 For more details on the survey see: http://portal.ksh.hu/pls/ksh/ksh_web.meta.objektum?p_lang=EN&p_menu_id=110&p_ot_id=100&p_obj_id=ZHC&p_session_id=48488026;

lead to a relatively greater burden on lower-income households. Our results are relevant to countries with a similar structure of health care financing, facing similar challenges, especially to countries in the CEE region.

2.2 Background: Overview of the reforms in the Hungarian health care sector in 2006-2007

Due to the continuous deficit of the National Health Insurance Fund (see more information in Chapter 1), the health care system was one of the fields where the Hungarian government had to consider reforms as a part of the Convergence Program of Hungary at the end of 2006 (Government of the Republic of Hungary, 2006). The objective of the Convergence Program was to contain the government deficit and meet the Maastricht criteria of the EU for joining the Euro zone (i.e. the ratio of the annual government deficit to gross domestic product must not exceed 3 percent at the end of the preceding fiscal year and the total state debt must not go beyond 60 percent of the GDP (European Commission, 1992). The resulting austerity measures in the health care system in 2006-2007 aimed to decrease public health care expenditure as a percentage of GDP. The reforms affected the regulation, structure and financing of the health care system. Reforms involved the increase of patient co-payments for pharmaceuticals as well as the introduction of co-payments for the use of public health care services, and co-insurance in the case of a free choice of physician, which led to the increasing role of out-of-pocket patient payments in health care financing. However co-payments for health care services were abolished at the beginning of 2008, as a result of a population referendum (see Chapter 1 and later in Chapter 3 and 4). A summary of the reform measures is presented in Box 2.1. As a result of the reform arrangements, total health care expenditure as a percentage of GDP decreased from 8.3 percent in 2006 to 7.7 percent in 2007. Public health care expenditure decreased compared to the year before by 1.8 percent in nominal terms and 9.1 percent in real terms. In fact, the share of public health care expenditure dropped from 72.6 to 70.4 percent (OECD Health Data, 2012). Also, the NHIFA registered savings in 2007. During this period, the NHIFA's expenditure on pharmaceuticals decreased by 17 percent due to the cost-containment measures such as the increase of patient co-payments for pharmaceuticals (ESKI, 2012a; ESKI, 2012b; Inotai et al., 2010).

Box 2.1 *The summary of health care reforms carried out in 2007****The expansion of contributing payers***

The reforms aimed to settle the eligibility criteria for the health for insurance coverage. According to the new regulations, the contributions of those who are eligible for services, but are not obligated to pay contributions (children under the age 18, students, pensioners, disability pensioners, women on maternity leave) is to be covered by the state budget. Those, who do not belong to these categories and who are either employees or self-employed workers are obliged to pay insurance contributions. The payment obligations have also been expanded to dependent family members and agricultural workers. According to the NHIFA's estimations, the status of more than 1 million citizens in the NHIFA register was uncertain before the reform (NHIFA, 2007).

Changes in the health insurance coverage

The introduction of co-payments. Co-payments for public health care services (called a "visit fee") were introduced in February, 2007. The policy objectives of the user fees were to control demand for public health care services, as well as to eradicate informal patient payments in Hungary (Ministry of Health, 2006). The amount of co-payments was 300 HUF (~1.1 euro) for each visit to a GP and out-patient specialist with a referral, and 600 HUF (~2.2 euro) if the patients use out-patient specialist care without a referral. In in-patient care, an amount of 300 HUF (~1.1 euro) was introduced per day of hospitalization. In case of unnecessary use of emergency care, 1000 HUF (~3.7 euro) had to be paid. The beneficiary of the revenue was the provider institution, or the GP praxis physician in the case of primary care. Children under the age 18 and users of certain health care services (e.g. emergency care, some chronic care/treatments, prenatal and preventive care) were exempted. Moreover, a stop-loss was introduced and defined by a maximum of 20 visits/days hospitalization per year. The payments after these 20 visits/days hospitalization a year were reimbursed by the state.

Restricted choice of patients to use health care services. The government also aimed to enforce a system of referrals in the public health care sector. According to the regulation out-patient and in-patient care could only be accessed based on a referral issued at the lower levels of the health care system. In addition, patients' choice of health care provider has been restricted. Patients could be admitted only to 2-3 hospitals in the region where the patients are living. Higher co-payments (30 percent of the hospital cost) should be paid, if patients wanted to attend hospitals (or physicians) in another region.

A new act on pharmaceuticals

The "Act on the Secure and Efficient Supply of Pharmaceuticals and Medical Aids and on the General Rules of Pharmaceutical trade" was adopted by Parliament in November 2006 (Act 2006/XCVIII.). This reform was expected to reduce public expenditure on pharmaceuticals by (1) enforcing the role of patients in financing (i.e. by decreasing subsidies on pharmaceuticals) as well as the role of pharmaceutical companies (by the introduction of risk sharing mechanisms between payer and the pharmaceutical companies and the increasing taxes on promotion), (2) supporting generics by regulating the drug prescription system; (3) and to create price-competition between pharmaceutical companies by the liberalisation of the pharmaceutical market.

Decreasing subsidies and increasing co-payments. NHIFA reimburses drugs in three categories: (1) Fully reimbursed drugs (2) Indication dependent drugs (3) Normative reimbursement. The measure of the subsidies is a defined percentage of the negotiated gross price of the medicine. In 2007 reimbursements on pharmaceuticals were decreased. First, for drugs belonging to the category of "normative reimbursement", the reimbursement rates have been decreased from 5 to 25 percent; from 70 to 55 percent; and from 90 to 85 percent. For drugs in the category of "indication dependent pharmaceuticals" the reimbursement rate of 90 percent was reconsidered, and replaced by three subsidy categories (50, 70, 90 percent). In the third category, where drugs are 100 percent subsidized, a minimum 300 HUF (c.a. 1.1 euro) co-payment per box was introduced (Inotai et al., 2010).

Structural reforms

The new system of high priority and territorial hospitals was established in April 2007, based on the Act 2006/CXXXII. In total, 77 territorial hospitals and 37 high priority hospitals were set up. Structural reforms concerned the decrease of the number of hospital beds in in-patient care as well. Acute bed capacity was cut by 16 000 beds (~27 percent), while chronic bed capacity increased by 7500 (~31 percent) in 2007 (Vas et al., 2009).

The establishment of Health Insurance Supervisory Authority

The Health Insurance Supervisory Authority was established in December 2006, to monitor contracts between the NHIFA and the providers. The Authority was also responsible for investigating patients complaints.

Note: Beyond these changes, the transformation of the health insurance system was planned as well. However, the idea of replacing the single-payer insurance model by competing Health Insurance Management Funds never materialised in practice. The Act on Health Insurance Management Funds was revoked by Parliament in May 2008.

2.3 Data and method

We use data on household expenditure from the Household Budget Survey carried out by the Central Statistical Office of Hungary for the years 2005, 2006, 2007 and 2008. The Central Household Budget Survey (HBS) provides detailed information on yearly expenditure on housing conditions and consumer durables according to the detailed grouping of Classification of Individual Consumption by Purpose (COICOP) international nomenclature. It also provides data on the socio-demographic characteristics of the household⁷.

The data collection consists of two parts: 1/12 of the selected households (about 750 households) keep a diary on their expenses and income for a month followed by a retrospective interview about their income and exceptional expenditures at the next year after the reference year.⁸ The dataset contains data for 9058 households in 2005, 8975 households in 2006, 8547 households in 2007, and 7650 households in 2008.

In this analysis, we examine four types of household expenditure on health care:

- expenditures on pharmaceutical products, medical aids and other medical products (appliances and equipments) – henceforth called as “pharmaceuticals and medical devices”.
- formal payments for public and private health care services (including fees for GPs, out-patient physicians, dental care and hospital services both the private and the public sector, services of laboratories and x-ray centres, ambulance services, services of freelance nurses, midwives and acupuncturists, chiropractors, optometrists and various types of therapists)
- informal payments for health care services (informal payments for GP, out-patient and in-patient care, dentist and ambulance);
- total health care expenditure (incl. the sum of the first three types of expenditure described above).

We present these types of expenditures by income quintiles as a percentage of the net yearly household income (also available from the HBS survey). To examine the progressivity of household expenditure on health care, we also calculate the Kakwani index. Kakwani indexes are estimated using the regression formula suggested by Kakwani et al. (1997) (Kakwani et al., 1997).

This index is widely used for measuring progression in taxation and also, the progression of out-of-pocket payments (e.g. van Doorslaer et al., 1999; Wagstaff et al., 1999; Wagstaff and van Doorslaer, 1992). Recent applications of the index in health care can be found in the literature (e.g. Hanley et al., 2008; Smith, 2010; Akazili et al., 2011). The index is defined as twice the area between the payments’ concentration

7 For more details on the classification see: <http://stats.oecd.org/glossary/detail.asp?ID=352>;

8 For more details see: http://portal.ksh.hu/pls/ksh/ksh_web.meta.objektum?p_lang=EN&p_menu_id=410&p_almenu_id=101&p_ot_id=100&p_level=1&p_session_id=15276620&p_obj_id=ZHC;

curve and the income (Lorenz) curve. The value of Kakwani index ranges from -2 to 1 . A negative value indicates regressive payments, i.e. in households with lower income, the share of expenditure as a percentage of income is higher than in households with higher income. A positive value indicates a progressive distribution, i.e. in households with lower income, the share of expenditure is lower than in households with higher income. In the case of proportionality, the concentration curve coincides with the Lorenz curve and the Kakwani index is zero (O'Donnell et al., 2004).

2.4 Results

Table 2.1 shows the descriptive statistics on the different types of health care expenditure as well as the net yearly household income of the households by income quintiles during the period 2005-2008. In that period, total household expenditure on health care increased from 3.7 to 4.4 percent of the net household income. This share varies between 2.1-2.5 percent of the household income in the highest income quintile to 6.1-7.3 percent of the household income in the lower-income quintiles.

The major cost driver of households' health care expenditure are the expenditures on pharmaceuticals and medical devices, which represent 78 percent of total expenditure in 2005, and this share increases to 85 percent in 2008. This share is the highest in the lower-income quintiles, varying between 81-89 percent of total household health care expenditure, while the share is the lowest (70-79 percent) in the higher income quintiles. Expenditures on pharmaceuticals and medical devices increase from 2.9 percent in 2005 and 2006 to 3.7 percent of net household income in 2008.

Formal payments for health care services account for 0.5-0.6 percent of household income. Its share in total household expenditure on health care is 13 percent in 2005 and 2006, which increases to 15 percent in 2007 with the introduction of co-payments for health care services, and decreases to 11 percent in 2008 with the abolishment of these fees. Households in the lowest income quintile pay a 3.2-3.6 times higher share of their income on these items. The share of the expenditures on formal payments is the highest in the highest income quintile (17-22 percent), while it is lowest in the lowest income quintile (7-13 percent). Households from the highest income quintile pay only a 1.2-1.9 times higher share of their income on these items than households from the lowest quintile.

Table 2.1 Out-of-pocket household expenditure on health care in Hungary, 2005-2008

Expenditure	Quintile	2005		2006		2007		2008	
		Mean	Sd	Mean	Sd	Mean	Sd	Mean	Sd
Income (Thousand HUF)	1 st	920	213	951***	245	889***	208	882	202
	2 nd	1 539	159	1 586***	159	1 468***	160	1 442***	165
	3 rd	2101	175	2157***	174	2 020***	166	1 972***	161
	4 th	2 790	239	2 840***	238	2 686***	227	2 609***	214
	5 th	4 622	1 802	4 627***	1 992	4 333***	1 726	4 062***	1 171
	Total	2 394	1 518	2 433***	1 556	2 279***	1 426	2 193***	1 225
Pharmaceu- ticals and medical devices (% of income)	1 st	4.96%	5.41%	5.29%	6.75%	6.00%***	6.96%	6.56%**	8.05%
	2 nd	3.53%	4.20%	3.43%	4.10%	4.10%***	4.67%	4.40%*	5.02%
	3 rd	2.38%	3.02%	2.42%	2.95%	3.03%***	3.87%	3.26%*	3.73%
	4 th	1.90%	2.34%	1.89%	2.15%	2.26%***	2.69%	2.33%	2.75%
	5 th	1.54%	1.72%	1.47%	1.67%	1.75%***	2.14%	1.97%***	2.20%
	Total	2.86%	3.80%	2.90%	4.19%	3.43%***	4.66%	3.71%***	5.10%
Formal payments (% of income)	1 st	0.62%	2.36%	0.77%	6.04%	0.91%	2.86%	0.49%***	2.06%
	2 nd	0.42%	1.36%	0.45%	1.56%	0.67%***	1.57%	0.43%***	1.49%
	3 rd	0.50%	1.47%	0.36%***	1.10%	0.61%***	1.57%	0.46%**	2.12%
	4 th	0.41%	1.15%	0.45%	1.49%	0.52%	1.64%	0.49%	1.70%
	5 th	0.48%	1.28%	0.41%*	0.95%	0.49%**	1.26%	0.42%	1.27%
	Total	0.49%	1.58%	0.49%	2.95%	0.64%***	1.87%	0.46%***	1.76%
Informal payments (% of income)	1 st	0.51%	1.50%	0.56%	1.92%	0.26%***	0.81%	0.28%	1.37%
	2 nd	0.43%	1.59%	0.38%	1.13%	0.23%***	0.70%	0.29%**	1.01%
	3 rd	0.27%	0.71%	0.29%	1.38%	0.19%***	0.67%	0.18%	0.61%
	4 th	0.25%	0.78%	0.22%	0.66%	0.15%***	0.52%	0.19%	1.65%
	5 th	0.18%	0.61%	0.20%	0.62%	0.14%**	0.63%	0.10%**	0.36%
	Total	0.33%	1.13%	0.33%	1.25%	0.19%***	0.67%	0.21%	1.11%
Total (% of income)	1 st	6.10%	6.60%	6.62%*	11.54%	7.18%	8.20%	7.34%	9.13%
	2 nd	4.38%	5.10%	4.26%	4.89%	5.00%***	5.32%	5.11%	5.87%
	3 rd	3.14%	3.72%	3.07%	3.69%	3.82%***	4.54%	3.90%	4.53%
	4 th	2.56%	2.96%	2.56%	2.95%	2.93%***	3.42%	3.01%	3.86%
	5 th	2.20%	2.46%	2.08%	2.21%	2.38%***	2.81%	2.50%	2.75%
	Total	3.68%	4.65%	3.72%	6.28%	4.26%***	5.48%	4.37%	5.93%

Note: 1 EUR=250 HUF during the examined period; income is indicated on 2007 price level indexed by CPI 2005-2006:+3.9%; 2006-2007:+0.8%; 2007-2008:+0.61%; t-test is used to compare the values between the years (H_0 :the share equal to the share in the previous year): * $p<0.1$; ** $p<0.05$; *** $p<0.001$.

The grey area present the period of health care reforms.

Informal payments account for 0.2-0.3 percent of the household income. These payments represent 9 percent of the total expenditure in 2005 and 2007, and decrease to 4 percent and 5 percent in 2007 and 2008 respectively. The share of these payments in total expenditure is rather equal among income quintiles varying between 8-10 percent before the reform period, and 4-6 percent after the reform.

Table 2.2 presents the value of the Kakwani index for the different types of health care expenditure, and Graph 2.1 graphically illustrates the equity in the payments. The negative values of the Kakwani index indicate that the distribution is regressive for the total household expenditure on health care, approximately -0.22 in all four years examined. This indicates that, lower-income households spend a higher share of their income on health care than better-off households.

Figure 2.1 *The trend and concentration of out-of-pocket household expenditure on health care*

Note: In the case of pharmaceuticals and medical devices grey area represent the period with increased co-payments. In the case of formal and informal payments the grey area represent the period when user fees were charges for health care services.

Table 2.2 Kakwani indexes by types of household expenditure on health care

Kakwani index by type of expenditure	2005	2006	2007	2008
Pharmaceuticals and medical devices	-0.235*** (-32.03)	-0.238*** (-32.39)	-0.240*** (-31.11)	-0.233*** (-30.99)
Formal payments for health care services	-0.004 (-0.19)	-0.024 (-1.21)	-0.096*** (-5.13)	-0.009 (-0.36)
Informal payments for health care services	-0.203*** (-10.04)	-0.182*** (-8.64)	-0.121*** (-5.07)	-0.200*** (-5.48)
Total expenditure on health care	-0.220*** (-32.79)	-0.224*** (-33.00)	-0.220*** (-29.94)	-0.215*** (-29.44)

Note: *** $p < 0.01$; t -statistics are in parenthesis. The grey area present the period of health care reforms.

The lowest value of the Kakwani index is found for pharmaceuticals and medical devices, varying between -0.24 in 2005, 2006 and 2007 and -0.23 in 2008, which indicates that this is the most regressive type of payment. Graphically, the curve of the expenditures on pharmaceuticals and medical devices is close to diagonal (see Figure 2.1). The Kakwani index is close to 0 in the case of formal payments, i.e. the coefficient is not statistically significant different from zero in 2005, 2006 and 2008, and significantly different from 0 in 2007 with the value of -0.10. This indicates proportionality of formal payments in 2005, 2006 and 2008. The graphs also show that formal payments for health care services follow the income (Lorenz) curve. Expenditures on informal payments are regressive as well. The Kakwani index for informal payments varies between -0.18/-0.20 before and after the reforms. Its value increases to -0.12 in 2007.

From Figure 2.1, we can also visually observe the changes in the expenditures during the examined period. We observe no relevant changes in the progressivity of the payments during the examined period concerning expenditures on pharmaceuticals and medical devices. However, we do observe, that in 2007, with the introduction of co-payments, the curve of the expenditures on formal payments diverges from the diagonal, which indicates that these payments become more regressive. However, the curve converge to the diagonal again in 2008 (which indicates proportionality of the expenditures), after the abolishment of co-payments. The curve of the expenditures on informal payments converges to the diagonal in 2007 compared to the other years examined, which indicates that informal payments became less regressive in 2007.

2.5 Discussion

Discussion of the results

Out-of-pocket payments

We find that the burden of household expenditure on health care is not equally distributed among different income groups. Households from the lowest income quintile pay an about three times larger share of their income on health care compared to households in the highest income quintile.

Our results confirm the conclusion of previous studies, which found that out-of-pocket payments are a regressive means of raising health care revenues (van Doorslaer et al., 1999; Mastilica and Bozikov, 1999; Wagstaff et al., 1999; Wagstaff and van Doorslaer, 1992). Examining some OECD countries, Wagstaff et al. (1999) found that out-of-pocket payments are most proportional to income in Germany and the Netherlands (Kakwani index higher than -0.1 percent) and the highest in Switzerland (-0.36) and France (-0.34), similar to the US (-0.38), where the poor without insurance coverage rely mostly on out-of-pocket payments (Wagstaff et al., 1999). We find that the Kakwani index of total household expenditure on health is approximately -0.22 during the examined period in Hungary, which is comparable to the findings for the United Kingdom and Finland (Wagstaff et al., 1999; Klavus and Hakkinen, 1998).

Concerning the neighbouring countries and countries from the Central-European region, in Slovakia the Kakwani index of out-of-pocket payments is -0.25 in 2004 and -0.23 in 2005 (Szalay et al., 2011), which is comparable to our findings for Hungary. In Croatia, even higher inequalities can be found. Persons from the lowest income deciles pay an about six times larger share of their income on health care than the highest income deciles (Mastilica and Bozikov, 1999). However, from the Central European region, the Czech Republic is an exception, where the share of out-of-pocket payments as a percentage of household income is much lower than found in our study (1.9 percent in 2007, 2.2 percent in 2008) and it is also distributed quite evenly across households (Bryndova et al., 2009).

Two previous studies reported Kakwani indexes of the out-of-pocket payments in Hungary (Gaál et al., 2011). Szende et al. (2002) find Kakwani indexes of -0.28 in 1999 and Csaba (2007) -0.27 in 2007 (Szende et al., 2002; Csaba et al., 2007). These values are slightly lower than those that we find in our study. The difference might be explained by differences in the methodology as previous studies calculated the index based on individual-level data, while we use expenditure data on household level. These studies, however, focus on data from one year and do not examine the trends in the equity of the payments.

We find that expenditures on pharmaceuticals and medical devices are the most regressive types of expenditures (the lowest income quintile pays 3.6 times more as a share of income than the highest quintile in 2007). At the same time, these payments represent the major share of the total household expenditure on health care (75-85 percent). The lack of adequate protection mechanisms in the pharmaceutical subsidy system might be the main reason for this finding. In Hungary, no ceiling for co-payments for pharmaceuticals and medical devices is applied, and the co-payments do not depend on income either. However, there is a rather controversial system for the exemptions of vulnerable social groups from such co-payments. Some patients with a disability or with an income below a certain level⁹ are eligible for exemption from paying co-payments. During the examined period relevant changes took place in the exemption system. Since July 2006, for patients who are eligible for exemptions, a certain budget is defined by their GP based on their medical needs. This budget should not exceed 12 000 HUF (~ 44 euro) per months. Before, there was a list of pharmaceuticals and medical devices which were available free of charge for patients with a special certificate, without any limitation of the quantity or the amount.¹⁰ However, according to the monitor of the National Auditory Office (NAO), the number of patients eligible for exemption because of their income decreased by 56 percent from 2005 to 2006, moreover the office found the system non-transparent, exemptions are not based on the real needs (National Audit Office, 2009). Our results suggest that the protection of vulnerable social groups should be revised and extended to improve equity of these payments. Nevertheless, it has been shown in previous studies that the lack of exemption mechanisms can produce inequalities in access to health care, which can lead to higher morbidity, emergency care admissions and mortality (Austvoll-Dahlgren et al., 2008; Atella et al., 2006;). Here, we have to highlight that the health status of the Hungarian population is already lagging behind other European countries (Gaal et al., 2011).

The high share of expenditures on pharmaceuticals and medical devices, which was observed in Hungary, is a common characteristic observed in most of the CEE countries that joined the EU after 2004. Here, the expenditures on pharmaceuticals and medical devices account for more than 70 percent of total health expenditure, while this share is below 50 percent in the EU15 countries (Eurostat, 2009). In CEE countries, medicines are rarely included in the basic package, so patients are obliged to pay out-of-pocket. The relatively low labour costs in these countries could hold the prices of services low even in the private sector in contrast with the price of pharmaceuticals and medical devices, which are comparable with those in Western European countries.

Payments for health care services represent a minor share of total household expenditure on health care. According to our results around 20-40 percent of these

9 Disabled and those persons are enabled for the certificate, whose medical expenses exceed 10% of the minimum pension and the family income per person do not exceed the minimum pension (in 2010 around 100 Euro) or 150% in case of the person is living alone.

10 For more details see: http://www.oep.hu/pls/portal/docs/PAGE/LAKOSSAG/OEPHULAK_EBELLAT/ACH%C3%8DVUM%202010/KOZGYOGYELLATAS.PDF

payments are informal payments. We find that household expenditures on informal payments are regressive, which confirms previous results of Szende and Culyer (2006) on informal payments in Hungary (Szende and Culyer, 2006). This implies that the amount of informal payments initiated by patients or requested by medical staff is not related to the patients' ability to pay. Thus, expenditures on informal payments impose a relatively higher burden on worse-off households, and might lead to inequalities to access.

However, expenditures on formal payments are found to be the most proportional to income. The explanation of this finding might be that before the introduction of co-payments in 2007 (as well as after the abolishment of the fees), most of the health care services covered by the social health insurance could be used free of charge and formal payments were mostly paid for private services. We assume that households with higher income use proportionally more private services. The finding that the expenditures on formal payments increase proportionally to income indicates that the private health care services are seen as a luxury goods which is in accordance with previous findings (e.g. Yu et al., 2008).

Changes in the progressivity of out-of-pocket payments during the reform period

Based on previous results, we expect that health care reforms, which increase the role of out-of-pocket payments in health care financing, lead to a relatively greater burden (of private payments) falling on the low-income groups (Mastilica and Bozиков, 1999; Albrecht and Klazinga, 2009; Gelormino et al., 2011). We find the same in the case of expenditures on formal payments. Compared to the observed proportionality in the previous years, in 2007, when co-payments for public health care services were introduced, expenditures on formal payments became more regressive despite of the application of exemption categories (which were mainly based on the type of care not on income situation) and a stop-loss. On the other hand, we find that despite of the increase of the co-payments for pharmaceuticals, the progressivity of expenditures on pharmaceuticals and medical devices did not change during the reform period. Thus, they remain regressive as before the reforms.

Finally, we have interesting findings concerning household expenditure on informal payments. In CEE countries, the introduction of co-payments is often motivated by their potential to eradicate or formalize informal payments (Schneider, 2008; Ensor, 2004; Thompson and Witter, 2000). This was also the case in Hungary where one of the main aims of the introduction of official user fees, besides the objective of curbing the unnecessary use of health care services, was to eradicate informal payments (Ministry of Health, 2006). In this study, we observe a decrease in informal payments of households in parallel to the increase of formal payments. Also, this expenditure became less regressive during the reform period, i.e. the decrease was higher in the lower-income households. This finding might suggest that worse-off households tried to compensate the increasing burden of formal co-payments with a decrease in their

expenditure on informal payments. However, we cannot really measure the causality of this association. Furthermore, the improvement observed in the equity of informal payments might also be the resultant of the larger drop in the utilization of services among worse-off households, which leads to less informal payments. Further research is needed to clarify the relationship between formal and informal expenditure.

Discussion of the limitations

We have to acknowledge some limitations of our study. First, we have to highlight that the National Household Budget Survey does not contain data on the utilization of services. However, according to previous literature, the reform arrangements have resulted in major changes in the utilization of health care (Körösi et al., 2009; Boncz et al., 2008; Nagy et al., 2008). Due to the lack of utilization data in the dataset, we cannot quantify the effect of the increase in co-payments on the access to health care across households with different income. However, it is possible that in worse-off households the drop in utilization is higher, as based on previous studies they are assumed to be the most sensitive to price changes (Manning et al., 1987; Newhouse, 1993). In this case, we underestimate the increase of the burden in these households. To have a better insight in the effect of the reforms on equity, equity in access to the services should be also considered and should be the topic further research.

We have to highlight that for the calculations, we use a data on household level. This might result in slight differences with previous results from Hungary (Csaba et al., 2007; Szende et al., 2002), which are estimated based on individual data. Finally, we also have to consider that during the examined period, multiple, simultaneous reforms (in and outside of the health care sector as a result of the Convergence Program) took place in Hungary. It is difficult to differentiate between the effects of separate reform arrangements on the household expenditure.

2.6 Conclusion and policy implications

In this chapter, we have examined the progressivity of households' out-of-pocket payments and the distribution of these payments across income quintiles between 2005-2008: before, during and after the period of health care reforms in Hungary (2006-2007). In 2007, comprehensive health care reforms took place in the country, with arrangements aimed at shifting costs to consumers (e.g. the increase of the co-payments for pharmaceuticals, the introduction of co-payments for health care services).

Expenditures on pharmaceuticals and medical devices are the most regressive payments and represents the highest share of households' health care expenditure (more than 75 percent). However the progressivity of these payments has not changed during the reform period. Future health care reforms should consider the improvement

of the equity of these payments by the improvement of protection mechanisms, e.g. the introduction of a maximum limit for co-payments for pharmaceuticals and medical devices or the implementations of exemption mechanisms of vulnerable social groups.

We find that in the case of formal payments, changes such as the introduction of co-payments for public health care services, led to a relatively greater burden falling on low-income groups despite of the application of exemption categories and a stop-loss. These effects on access to health care services should be carefully considered before the increase or the introduction of co-payments and special attention should be paid to the protection of vulnerable households from an increased burden on their household budgets. It is necessary to assure access to health care services of those who are not able to pay for the services. Our results also suggest that households, especially in the lower-income deciles tried to compensate the increasing burden of health care expenditure by decreasing expenditures on informal payments. However, further research is needed to study the causality of these relations.

The results of our study might serve as a useful example for other European countries, where the expansion of patient cost-sharing is considered. Especially in the CEE countries that joined the EU in and after 2004, since in these countries, the structure, financing and operation of the health care system are similar to those in Hungary. Furthermore, in the last decades, these countries all considered or have been considering an increase of out-of-pocket payments to cope with the continuous deficit of the health insurance funds, and financial difficulties of health care providers.

More attention should be paid to the protection of the poor when implementing patient charges, especially for pharmaceuticals but also for services. Also, it is important to eliminate the practice of informal payments in order to improve equity in health care financing and to avoid inequalities in access to health care.

Chapter 3

Informal payments for healthcare services and short-term effects of the introduction of user fees on these payments in Hungary

This chapter draws upon:

Baji P, Pavlova M, Gulácsi L, Homolyáné Csete Zs, Groot W. (2012): Informal payments for healthcare services and short-term effects of the introduction of visit fees on these payments in Hungary. *International Journal for Health Planning and Management*, 27(1):63-79.

Abstract

Background: In 2007 user fees for health care services were implemented in Hungary as a part of health care reforms, with the objective to control utilization of services and eradicate informal payments.

Objective: The objective of this chapter is to study the short-term effects of the introduction of user fees in Hungary in 2007 on informal patient payments. We present the pattern of informal payments in primary, out-patient specialist and in-patient care in the period before and shortly after user fees were introduced. We also analyze whether in the short run, the introduction of user fees decreased the probability of paying informally.

Method: For the analysis we use a dataset for a representative sample of 2500 respondents collected in 2007 shortly after the introduction of user fees. The dataset contains data on informal payments for health care services.

Results: According to our results, for GP care, 9 percent of the patients paid informally during their last visit (2 euro on average), 14 percent paid informally for specialist care (35 euro on average), and 50 percent paid informally for hospitalization (58 euro on average). We find a significant reduction in the probability of paying informally only for elderly patients in case of in-patient care.

Conclusion: Our results suggest that informal payments are widely spread, especially in in-patient care. The short run potential of the introduction of user fees to reduce informal payments seems to be minor.

3.1 Introduction

In most of the Central and Eastern European (CEE) countries, where informal patient payments are widespread, the introduction of official co-payments (user fees) is often promoted as a policy tool to eradicate “formalize” informal payments (Baschieri and Falkingham, 2006; Ministry of Health, 2006). Although the effectiveness of this strategy has not been adequately studied and there is no evidence in the literature which clearly supports this expectation. Thus, the introduction of user fees in the context of informal patient payments raises concerns that official fees might impose a double financial burden on consumers (Ensor, 2004; Lewis, 2000).

Previous studies concerning the issue of the relationship between formal and informal payments mostly have focused on the experiences of low-income African and Asian countries, where health care services are mainly financed through out-of-pocket payments (or community financing systems) due to the lack of public health insurance systems (Lewis, 2007; James et al., 2006; Baschieri and Falkingham, 2006; Akashi et al., 2004; Balabanova et al., 2004; Barber et al., 2004; Belli et al., 2004; Burnham et al., 2004; Soeters and Griffiths, 2003; Xu et al., 2003). Besides the conflicting results reported in these studies, the transferability of this evidence to European countries is rather limited.

The aim of this chapter is to contribute to our knowledge by studying the short-term effects of the introduction of user fees on informal payments in Hungary, where user fees were implemented in 2007. The policy objective of user fees, besides curbing the utilization of services, was to eradicate informal payments, which are still a notable source of health care financing (Ministry of Health, 2006)¹¹. However, the effect of the implementation of user fees on informal payments has not been extensively analyzed yet. Two studies reported estimations on informal payments during the period when user fees were charged (MEDIÁN, 2008; TÁRKI, 2007). The study of a Research Institute (TÁRKI, 2007) indicated that less patients paid informally for hospital physicians in 2007 compared to 2003, while no change was observed for out-patient specialist care. The study of MEDIÁN (MEDIÁN, 2008) found that one year after the implementation of user fees, the aggregated amount of household expenditure on informal payments had decreased, but this decrease did not compensate household expenditures on the formal fees. Consequently, household expenditure on health care services (formal and informal payments) increased. However, it is unclear from these studies whether these changes are the resultant of the introduction of user fees. In Chapter 2, we also found a decrease in informal payments of households after the implementation of user fees, however we could not prove the causality of this relation. The decrease of informal payments can be also the resultant of a drop in

¹¹ For more information on informal payments in Hungary see Chapter 1 and more details about the implementation of user fees in Hungary can be found in Chapter 1 and 2.

utilization after the introduction of user fees. In this chapter, we address this issue and examine the changes in the probability of paying informally shortly after the implementation of user fees.

For the analysis, we use a dataset collected two months after user fees were introduced, consisting of a representative sample of 2500 respondents. First, we present the pattern of informal payments in primary and out-patient specialist care as well as in in-patient care in the period before and shortly after user fees were introduced. Second, we analyze whether in the short run, we observe a decrease in the probability of paying informally after the introduction of user fees.

3.2 Data and method

To examine the pattern of informal payments and the relation between formal and informal payments, we use cross-sectional data collected in a survey carried out in April 2007, two months after the implementation of user fees. The data were collected by MEDIÁN Survey Institute as a part of a research project of the István Széchenyi College of Advanced Studies and Generali Providencia Insurance Company via face-to-face household interviews. The sample of 2500 respondents is representative for the Hungarian population in terms of age, gender, education level and type of settlement. Households in the sample were selected by the “random walk” method and the respondent in the household was selected by the “Leslie Kish” method (see in Oldendick et al., 1988). The dataset provides micro-level data on informal payments of respondents for the last visit to a GP and to an out-patient specialist, and for the last hospitalization, as well as on the respondents’ socio-demographic characteristics.

To describe the existence of informal payments, we present the share of respondents who paid informally during their last physician visit/hospitalization, as well as the average amount of informal payments for the last visit/hospitalization separately for three types of care: GP, out-patient specialist and in-patient care. The results are stratified by gender, age category, education category, type of settlement, the three types of specialists that are the most frequently visited (internist, rheumatologist and gynecologist) in case of out-patient specialist care, and the reason of hospitalization (surgical admission, medical examination or delivery) in case of in-patient care.

To examine the changes in the probability of paying informally after the introduction of user fees among different socio-demographic groups, we use probit regression analysis. Data related to informal payments are used to define three binary dependent variables indicating whether the respondent paid informally during their last visit to GP, out-patient specialist, and for the last hospitalization respectively.

The set of independent variables consists of data on socio-demographic characteristics (namely age, gender, perceived health status, family income, education level, number of persons in the household, type of settlement) and satisfaction variables (respondents' satisfaction with GP, out-patient and in-patient care). In addition to this, we include independent variables related to the characteristics of the health care service, i.e. type of specialist and reason for hospitalization (see Table 3.1).

To analyze how the introduction of user fees affected the probability of paying informally, we also include a dummy variable in the probit models, which indicates whether the last out-patient specialist visit or the last hospitalization was before or after the implementation of user fees. We have no information about the exact date of the last visit. We are interested in whether the date of the last visit/hospitalization (before or after the introduction of user fees), has a statistically significant coefficient, which indicates whether in the short run, the probability of paying informally changed after the implementation of user fees.

The groups of respondents who had their last visit/hospitalization before the introduction of user fees, differ significantly from the group, who had the last visit/hospitalization after the introduction, in terms of age and perceived health status ($p < 0.05$). Therefore, in the regression analysis, we include interactions between age and the date of last visit/hospitalization, as well as between perceived health status and date of last visit/hospitalization to filter out the effect of different comparison groups.

We examine only the variation in the probability of paying informally as the sample size is not large enough to build significant models for analyzing the variation in the amount of informal payments.

3.3 Results

Descriptive statistics of the sample are presented in Table 3.1. Table 3.2 shows the percentage of respondents who paid informally for their last visit/hospitalization, and the average amount of the informal payments. As indicated in Table 3.2, in the last 12 months, 72.7 percent of the respondents visited their GP at least once and 8.7 percent of those who visited a GP paid informally during the last visit (on average 2 euro). In out-patient specialist care, 14.0 percent of the patients paid informally for their last visits to a specialist (on average 35 euro). With regard to in-patient care, 16.8 percent of the respondents were hospitalized during the last 12 months. The average age of this population was 58.9 years, 68.7 percent of them were female, and 39.1 percent of the hospitalizations were surgical admissions. Every second (49.7 percent) patient paid informally during the last hospitalizations (on average 58 euro).

Table 3.1 *Informal payments for health care services - descriptive statistics of the sample*

Variables	Measurement	Value range	Frequency N(%)	Median	Mean	Sd	Number of observations
Age	Scale	18-93	-	51	50.7	17.4	2499
Persons within household	Scale	1-9	-	2	2.5	1.3	2500
Household income *	Scale	0.44-190	-	15	18.44	14.16	2406
Gender	Nominal	0=male 1=female	1002 (40.0) 1498 (60.0)	-	-	-	2500
Perceived health status	Ordinal	1=very bad 2=bad 3=average 4=good 5=quite good	65 (2.6) 378 (15.1) 983 (39.4) 909 (36.4) 162 (6.5)	3	3.3	0.9	2497
Education level	Ordinal	1=less than primary 2=primary school 3=secondary school 4=university, collage	172 (6.9) 1343 (53.7) 731 (29.3) 253 (10.1)	2	2.4	0.8	2499
Village	Dummy	0=not village 1=village	1644 (65.8) 856 (34.2)	-	-	-	2500
Satisfaction with out-patient care	Ordinal	1=not at all satisfied 2 3 4 5=very satisfied	154 (6.4) 422 (17.5) 890 (36.9) 696 (28.9) 250 (10.4)	3	3.2	1.0	2412
Satisfaction with in-patient care	Ordinal	1=not at all satisfied 2 3 4 5=very satisfied	182 (8.2) 430 (19.4) 875 (39.6) 541 (24.5) 183 (8.3)	3	3.1	1.0	2211

* Amounts in 10 000 HUF; Exchange rate in 2007 is 270 HUF/-1EUR.

Further analysis of the results in Table 3.2 shows that the probability of paying informally before and after the introduction of user fees differs significantly only in the case of in-patient care ($p=0.0038$). The amount of informal payments decreased significantly in primary ($p=0.0023$) and in-patient care ($p=0.0816$), and it has not changed significantly in out-patient specialist care after the introduction of user fees.

The results of the regression analysis are presented in Table 3.3. For GP care, we find that the probability of paying informally increases significantly with age, and education. However, the marginal effects are moderate, namely 3 percentage points for education, and 0.1 percentage points for age. For out-patient specialist care, we find a significant association between the probability of paying informal payments and income, perceived health status as well as education level. High-income respondents as well as those with better health status and higher education pay more frequently during their last visit than others (marginal effects are 0.1, 2 and 4 percentage points respectively). Considering the type of services, the probability of paying informally is significantly higher in the case of gynecologist visits (with the marginal effect of 12 percentage points).

The probability of paying informally for in-patient care is significantly higher for women, for respondents with higher income, from smaller households and for people living in towns (marginal effects are 17, 0.2, 7 and 10 percentage points respectively). A significantly higher probability of paying informally is also observed in the case of surgical admission and delivery with the marginal effects of 18 and 39 percentage points.

Table 3.2 *Informal payments of respondents for the last visit/hospitalization in 2007*

	GP visits				Out-patient visits				Hospitalizations			
	Number of visits	Paid informally %	Mean amount [HUF]	Sd [HUF]	Number of last visits	Paid Inform-ally %	Mean amount [HUF]	Sd [HUF]	Number of hospitali- zations	Paid informally %	Mean amount [HUF]	Sd [HUF]
Total sample	1817	9%	427	607	1917	14%	9525	21185	419	50%	15645	16118
Gender												
Male	652	9%	400	510	583	13%	8009	9099	129	43%	17472	17250
Female	1165	10%	442	652	1,334	15%	10118	24330	290	53%	14958	15680
Age												
<40 years	484	9%	665	981	439	14%	11792	12191	80	61%	24477	22211
40-59 years	579	10%	382	470	718	15%	9171	29800	123	52%	15200	15477
>60 years	754	9%	307	230	760	13%	8306	12353	216	44%	11623	10542
Education												
Less than elementary	150	5%	267	361	149	9%	15846	19765	56	41%	10636	8220
Elementary	971	8%	359	347	992	12%	7174	8376	228	45%	14792	14889
Secondary	508	11%	530	836	549	14%	12527	35021	95	58%	15949	16928
Higher education	187	15%	419	567	226	26%	8565	12032	40	68%	22800	21941
Settlement												
Town	1209	10%	439	647	1,357	15%	9639	23527	271	55%	15964	15291
Village	608	8%	383	414	560	12%	9182	11693	148	41%	14877	18073
Date of last visit/hospitalization												
Before the introduc- tion	642	9%	620	896	1,261	14%	9914	24626	330	53%	16336	17105
After the introduc- tion	1167	10%	321	314	656	14%	8774	12139	89	37%	11867	8182
Type of specialist												
Gynecologist	-	-	-	-	232	24%	10713	11659	-	-	-	-
Rheumatologist	-	-	-	-	214	13%	7276	13087	-	-	-	-
internist	-	-	-	-	324	14%	13574	46092	-	-	-	-
Reason of hospitalization												
Operation	-	-	-	-	-	-	-	-	167	56%	18511	15893
Examination	-	-	-	-	-	-	-	-	115	43%	8969	7219
Delivery	-	-	-	-	-	-	-	-	25	84%	31563	23361

Note: Amounts are presented in HUF. Exchange rate in 2007 is 270 HUF=1EUR

Table 3.3 *Probability of paying informally for the last visit/hospitalization in 2007 – results of the probit regression analysis*

Type of service	GP visits		Out-patient visits		Hospitalizations	
Variable	Coefficient (st.error)	Marginal effect at mean (st.error)	Coefficient (st.error)	Marginal effect at mean (st.error)	Coefficient (st.error)	Marginal effect at mean (st.error)
Age	0.0102** (0.0042)	0.0016 (0.0007)	0.0042 (0.0034)	0.0009 (0.0007)	-0.0031 (0.0057)	-0.0012 (0.0023)
Gender	0.0605 (0.0904)	0.0095 (0.0140)	0.0705 (0.0872)	0.0147 (0.0179)	0.4399*** (0.1521)	0.1734 (0.0586)
Perceived health-status	0.0023 (0.0779)	0.0004 (0.0123)	-0.1088* (0.0579)	-0.0230 (0.0122)	-0.0385 (0.0969)	-0.0154 (0.0387)
Persons in household	-0.0152 (0.0423)	-0.0024 (0.0067)	-0.0283 (0.0383)	-0.0060 (0.0081)	-0.1821*** (0.0632)	-0.0727 (0.0252)
Household income	0.0045 (0.0032)	0.0007 (0.0005)	0.0084*** (0.0031)	0.0018 (0.0007)	0.0243*** (0.0070)	0.0097 (0.0028)
Education	0.1971*** (0.0611)	0.0312 (0.0096)	0.1702*** (0.0533)	0.0360 (0.0112)	0.0360 (0.0970)	0.0143 (0.0387)
Village	-0.0805 (0.0956)	-0.0125 (0.0146)	-0.0404 (0.0856)	-0.0085 (0.0178)	-0.2468* (0.1448)	-0.0981 (0.0572)
Satisfaction with GP services	-0.0207 (0.0419)	-0.0033 (0.0066)	-0.0470 (0.0355)	-0.0099 (0.0075)	-0.0643 (0.0600)	-0.0257 (0.0239)
Date of visit (before/after user fees)	0.1551 (0.1092)	0.0238 (0.0162)	0.0988 (0.1055)	0.0213 (0.0231)	-0.0599 (0.2853)	-0.0239 (0.1137)
Specialist (internist)	-	-	0.0870 (0.1038)	0.0190 (0.0234)	-	-
Specialist (gynecologist)	-	-	0.4707*** (0.1180)	0.1194 (0.0346)	-	-
Specialist (rheumatologist)	-	-	0.0097 (0.1242)	0.0021 (0.0265)	-	-
Reason of hospitalization (surgical admission)	-	-	-	-	0.4632*** (0.1735)	0.1830 (0.0672)
Reason of hospitalization (examination)	-	-	-	-	0.1453 (0.1896)	0.0579 (0.0754)
Reason of hospitalization (delivery)	-	-	-	-	1.1690*** (0.4023)	0.3932 (0.0926)
Days in hospital	-	-	-	-	0.0085 (0.0064)	0.0034 (0.0026)
Date_age	-0.1902 (0.1417)	-0.0288 (0.0205)	-0.1689 (0.1529)	-0.0333 (0.0280)	-0.6649** (0.3268)	-0.2525 (0.1123)
Date_health	-0.0380 (0.1596)	-0.0059 (0.0245)	-0.0778 (0.1594)	-0.0159 (0.0315)	0.0466 (0.3319)	0.0186 (0.1323)
Constant	2.4004*** (0.4827)	-	2.0900*** (0.5911)	-	1.4932*** (0.3673)-	-
Number of respondents	1740		1838		396	
Log-likelihood	-520.04		-709.78		-243.04	
Chi-squared (p-value)	23.83 (0.0135)		49.64 (0.0000)		62.88 (0.000)	
Pseudo R-squared	0.0224		0.0338		0.1146	

*p<0.1; **p<0.05; ***p<0.01

Note: The dependent variable indicates whether the respondent paid informally for the last visit/hospitalization.

We do not find a significant change in the probability of paying informal payments after the introduction of user fees for neither primary care nor out-patient specialist care, except for elderly respondents. Given the level of significance of the interaction terms, respondents over the age of 60 less often paid informally after the introduction of user fees compared to the period before. The probability of paying informally is 25 percentage points lower for the elderly after the implementation of the fees. The interaction term between date and health status is not significant, which suggests that the probability of paying informally did not change for respondents in worse health status.

3.4 Discussion

Discussion of the limitations

We need to acknowledge some potential biases in our study. First, recall bias might affect data on past health care utilization and payments (De Bruin et al., 1996). However, in our case, this bias is moderated by asking the respondents only about their last visit/hospitalization. Second, respondents may feel uncomfortable when answering questions on informal payments, as these payments represent a potentially sensitive issue due to their informal nature. The collection of sensitive data via a self-administered questionnaire has the potential to reduce this bias. On the other hand, face-to-face interviews, used to collect the data in our study, can help to avoid missing data as a result of the presence of an interviewer to guide the respondent (Saris and Gallhofer, 2007).

The utilization of services presented in our study seems to be relatively high for a European country, especially in case of GP visits. However, in Hungary, the number of physician contacts per person is extremely high compared to the OECD average of 6.6 visits per year. From 2006 to 2007, the number of physician contacts in Hungary decreased from 12.9 to 10.8 visits per year, which still indicates approximately 1 visit per month per person (OECD, 2009). Thus, the high number of visits reported by the sample in our study is not surprising. It should be acknowledged that the physician visits include not only visits due to health problems but also routine check-ups and visits to obtain health certificates.

The method that we use for the analysis of the effect of user fees on informal payments has also some limitations. In particular, the dataset that we use for the analysis, contains data only for a very short period (i.e. 2 months) after the introduction of user fees. Therefore, our results reflect only the short-term effect of user fees on informal payments. It is probable that more time is needed to observe any change in the behavior of consumers and providers. Although, the decrease in health care utilization was noticeable right after the implementation of user fees (Kőrösi et al., 2009; Boncz et al., 2008; Nagy et al., 2008), we do not observe such reduction in informal payments on the short-run. It is also possible that patients respond with a decrease of the amount of informal payments instead of not paying, which can be the

topic of further research. Moreover, we do not account for the effect of exemptions from user fees since we do not have data on whether the respondent was eligible for exemptions. Follow up data collection could have been more convenient to study the long-term effects of user fees. However, user fees were anyway abolished 1 year after their introduction.

Discussion of the results

Our results suggest that informal payments are highly widespread in in-patient care. This is in accordance with previous studies for Hungary (Gaál et al., 2006b; Szende and Culyer, 2006; Gaál and McKee, 2004). Every second respondent in our sample, who used hospital services, paid for the last hospitalization. The amount of these informal payments (58 euro on average) is a significant expense for patients, as it equals to 13.7 percent of the average net monthly salary and 20.5 percent of the average pension in 2007.

In out-patient specialist care, every 6-7th respondent paid for the last visits on average 35 euro. The differences in the probability of paying and the amount of payments indicate that some sectors, like gynecology, seem to be “informally privatized” by informal payments. Here, the amount of informal payments is similar to those in the private sector. For example in Hungary, the tariff of a gynecology visit in the private sector varies between 19-37 euro. This means that physicians use public resources to provide public services but obtain an informal fee similar to the price of private visits.

According to our results, informal payments are the least frequent in primary care, patients pay for every 10-11th visit, and lower amounts, on average 2 euro. This finding is also in accordance with previous studies (Bognár et al., 2000; Gaál et al., 2006b; TÁRKI, 2007). The lower occurrence of informal payments in GP care might be related to the content of the visits – i.e. most of the GPs visits are for routine medical check-up, prescriptions or referrals where patient may not need to pay informally.

Considering the type of services, the probability of paying informally is significantly higher in case of gynecologist visits than for other out-patient specialist services as well as for surgical admission and delivery compared to examination. Other studies on informal patient payments in Hungary also report that informal payments are most widespread in the case of gynecology and surgery (Bognár et al., 2000). Also, our findings confirm previous results on the unequal distribution of informal payments between physicians (Gaál et al., 2006b).

Our findings for Hungary appear to be within the range of informal payments reported in other studies from European countries. A study in Greece (Liaropoulos et al., 2008), for example, reports that 36 percent of the patients paid informally for hospital care, which share is slightly lower than our findings for Hungary. Estimations of the frequency of paying informally were somewhat higher for the 1990's. Poland

(Lewis, 2000). In contrast, in the Czech Republic, the level of informal payments seems to be lower than in Hungary (Belli, 2003). Compared to Bulgaria, the amounts of informal payments are similar to our findings for out- and in-patient care estimated as a percentage of monthly salary (Delcheva et al., 1997).

We do not find a significant effect of respondents' satisfaction on the probability of paying informally. However, we find differences in paying informally between different socio-demographic groups. Similar to previous studies (TÁRKI, 2007; Belli, 2003; Bognár et al., 2000), we also find that women, elderly, those with worse health status, higher education, and from the capital are more frequently paying informally. In contrast to other studies (TÁRKI, 2007; Belli, 2003; Bognár et al., 2000), we observe a significant relation between informal payments and income as well.

In our analysis, we also find a change in the probability of paying informally shortly after user fees were introduced, but only in case of hospitalization of elderly patients. Thus, in our study elderly patients proved to be the most sensitive to the price changes. The reason for this finding could be that they are the most frequent users of health care services and they also belong to lower-income groups (Medgyesi et al., 1999). At the same time, we do not observe significant changes for patients with bad perceived health status.

The reason why we do not observe relevant changes regarding informal payments of the patients might be that a longer period is needed to perceive changes in patients' behavior regarding informal payments. Furthermore, we have to consider that neither the objectives, nor the beneficiaries of informal payments are the same as those of user fees. The beneficiaries of the collected fees were neither the physicians nor the nurses but the health care institution itself, except for GPs with private practices. Therefore, user fees could not substitute for the informal payment flows, which are directly pocketed by the medical staff, at least in the short run. Also, it is quite probable that patients rather pay informally directly to their physician, in the hope of getting extra services or more personal attention.

3.5 Conclusion and policy implications

In this chapter we have examined the pattern of informal patient payments for GP and out-patient specialists as well as for hospitalization in Hungary, during the period before and shortly after the implementation of user fees (2006-2007). We have also analyzed the short-term effect of the introduction of user fees on informal payments.

We have found that, in the short run, after the implementation of user fees the probability of paying informally decreased only for hospitalizations in the case of elderly patients. We have not found any short-term changes in the probability of paying informally for the rest of the population. This suggest that the introduction of user fees is more effective as a policy tool to reduce service utilization than to eradicate informal payments, which was one of the policy aims of the implementation

of user fees in Hungary (Kőrösi et al., 2009; Boncz et al., 2008; Mihályi, 2008; Nagy et al., 2008).

Furthermore, our results suggest that Hungarian patients pay informally for medical services on a routine basis. The existence of informal payments indicates that patients are willing to pay for medical services. However, the protest of the population against user fees, expressed during the population referendum that resulted in the abolishment of this fee, may show that health care consumers do not consider user fees as an alternative to informal payments.

According to our results, in the short-run, the introduction of official co-payments is not sufficient on its own to change the behavior of patients paying informally. This should be taken into account by health policy makers who plan to implement user fees in the context of informal payments.

Chapter 4

User fees for public health care services in Hungary – expectations, experience, and acceptability from the perspectives of different stakeholders

This chapter draws upon:

Baji P, Pavlova M, Gulácsi L, Groot W. (2011). User fees for public health care services in Hungary: expectations, experience, and acceptability from the perspectives of different stakeholders. *Health Policy*, 102(2-3):255-62.

Abstract

Background: User fees for health care services are a rather new phenomenon in Central and Eastern Europe. In Hungary, user fees were first introduced in 2007, but abolished one year later as a result of a population referendum.

Objective: The aim of our study is to describe the experiences and expectations of health system stakeholders in Hungary related to user fees as well as the stakeholders' approval of such fees.

Method: For the analysis, we use both qualitative and quantitative data collected during focus group discussions with health care consumers and physicians, and in-depth interviews with policy makers and health insurance representatives.

Results: Our findings suggest that the reasons behind the unpopularity of user fees might be (a) the rejection of the policy objectives of user fees stated by the government, (b) the negative personal experiences with user fees, and (c) the general mistrust of the Hungarian population when it comes to the utilization of public resources.

Conclusion: Successful implementation of user fees requires a social consensus on the policy objectives. Furthermore, improvements in the quality of health care provision should be noticeable for consumers to assure the acceptance of the fees.

4.1 Introduction

The issue of official patient co-payments or user fees is occupying political discussions in Europe, since its importance as a tool to control the increasing public spending on health care is rising considerably. This is also the case in the EU member states from Central and Eastern Europe (CEE) that joined the EU in 2004, (e.g. the Czech Republic, Hungary, Slovakia, and Poland). In these countries, cost-sharing for pharmaceuticals and medical devices and payments for services which fall (partly or fully) outside the coverage of the social health insurance, has long been applied, and constitutes a notable share of total health care expenditure (Tambor et al., 2010; Rechel and McKee, 2009; Schneider, 2008). However, some of these countries also have experiences with the implementation of official user fees for primary, out-patient and in-patient services covered by social health insurance. Such user fees have been recently introduced in the Czech Republic. In Slovakia and Hungary, user fees for services were implemented and abolished shortly after their introduction (Kossarova and Madarová, 2008; Pazitny and Szalay, 2006). Experiences from the Central European countries show that the introduction of user fees for health care services meets strong opposition by political opponents and the general public (Hall, 2009). Their unpopularity is often explained by social perceptions rooted in the communist period, which holds that public health care services should be provided free for all (Hall, 2009; Akkazieva et al., 2006).

In Hungary, user fees were introduced in 2007 with the aim to control utilization and eradicate informal payments. (For more information on the implementation of user fees, see Chapter 1-3). However, the system of user fees worked for only one year. The fees were abolished in April 2008 as a result of a population referendum initiated by the opposition, where more than 80 percent of the voters supported the abolishment of the fees. Participation in this referendum was high, higher than in the parliamentary elections in 2010. About 50.5% of the population who was entitled to vote took part. In total, 82.4% of the voters supported the abolishment of user fees for physician visits, and 84.0% of voters supported the abolishment of the user fees for hospitalizations (National Election Office, 2008).

The aim of this chapter is to describe the experiences and expectations of the stakeholders in the Hungarian health system (namely consumers, providers, policy makers and insurers) regarding user fees as well as the approval of these fees. To achieve this aim, we analyze data collected via focus group discussions and in-depth interviews in Hungary in 2009. Our results provide a better insight into the causes of the opposition to user fees in Hungary, which was expressed during the population referendum in 2008. Our analysis also serves as an instructive case study for other countries in the region and may contribute to the establishment of sustainable patient payment policies.

4.2 Data and method

In this chapter a mix of quantitative and qualitative research methods is applied to describe expectations, experiences of health system stakeholders in Hungary toward user fees as well as the approval of such fees. The mix of qualitative and quantitative methods enables us to map different attitudes, opinions and emotions towards user fees.

Data collection

For the purpose of the study, focus group discussions and in-depth interviews were carried out in Hungary in 2009, as part of an international research project. The objective was to study the opinions and attitudes of health system stakeholders, namely health care consumers, providers, insurers and policy makers, toward user fees.

Data among policy makers and health insurance representatives were collected via face-to-face semi-structured in-depth interviews: 3 interviews with policy makers and 4 interviews with health insurance representatives working at different levels of the health care system were carried out. On average, each interview took 1-1.5 hours.

Data for health care consumers and providers were collected via focus group discussions. We included various society and professional groups to account for different backgrounds and interests among the Hungarian population. At the same time, the objective was to assure the homogeneity of participants in each group to be able to share and discuss own experiences and opinions. As a result, 8 focus group discussions were organized: 5 focus groups with health care consumers and 3 with health care providers. Consumer groups included working individuals, families with children, pensioners, students and individuals living in rural areas respectively. With regard to health care providers, the three focus groups included GPs, out-patient specialists and physicians in hospitals, respectively. Each focus group included 5 participants and the discussion took 1.5-2 hours. In total, 40 people participated in the focus group discussions.

A list with key questions was prepared as a guide to the focus group discussions and in-depth interviews. The same key questions were used to develop a standardized questionnaire to collect quantitative data among the participants on the same topic as well. The guide for focus group discussions and in-depth interviews, as well as the standardized questionnaire included questions about respondents' opinion on user fees:

- whether user fees should exist in Hungary (in the questionnaire a 5-point Likert scale was applied: strongly agree, agree, neutral, disagree, strongly disagree);
- for which services should user fees be applied (possible answers in the questionnaire: GP, out-patient, in-patient, emergency, dental);
- whether there should be a maximum limit (stop loss) on user fees per patient (possible answers in the questionnaire: yes/no);

- whether some population groups should pay reduced fees or be exempted from user fees (in the questionnaire: yes/no);
- which population groups should be exempted (possible answers in the questionnaire: children, pensioners, people with low income, people with chronic diseases, pregnant women, disabled people, other);
- who should be the beneficiary of the collected revenues (possible answers in the questionnaire: the national or regional health insurance fund, the state, municipalities, the provider institution, the physician).

Data analysis

To analyze the expectations, experiences and approval of user fees by the groups of stakeholders, a direct content analysis is carried out based on the transcripts of the focus group discussions and in-depth interviews. A procedure described in previous research is followed (Downe-Wamboldt, 1992; Morgan, 1993; Graneheim and Lundman, 2004; Hsieh and Shannon, 2005).

Using the transcripts, we have coded the statements and opinions expressed by participants and respondents, using meaningful units related to the three categories indicated in our research aim, namely expectations, experiences and approval of user fees. These include:

- Units, where participants/respondents expressed their opinion about the objectives and role of user fees and their perceptions on how these objectives and expectations meet the stated policy objectives of user fees introduced in Hungary in 2007, are classified in the category “Expectations”.
- Units, mentioning experiences with user fees implemented in 2007 in Hungary are classified in the category “Experience”
- Units, concerning the approval of user fees, i.e. whether and what kind of payments/fees for health care services would be acceptable for participants/respondents, are classified in the category “Acceptability”.

We use individual quantitative data collected via focus group discussions and interviews as additional information to complement our qualitative analysis. In particular, we divide the participants and respondents into attitude groups based on their individual responses by applying the method of cluster analysis. Due to the low sample size, only the following three binary variables, generated based on the standardized questionnaire, are used in this analysis:

- Participants/respondents’ agreement with the existence of user fees, i.e. whether such fees should exist in Hungary;
- Participants/respondents’ opinion about the desirable objectives of user fees (if implemented), namely the decrease of unnecessary services utilization or the generation of additional resource;

- Participants/respondents' opinion about exemptions, i.e. whether exemptions should be applied if user fees are implemented.

We use the Ward method to ensure homogeneity and relatively equal size of the attitude groups. Differences between the binary variables are calculated by the method of simple matching (see Romesburg, 2004). Participants/respondents are classified in the basic attitude groups based on their responses in the standardized questionnaire.

4.3 Results

Qualitative data analysis

Tables 4.1-4.3 summarize the statements related to experiences, expectations and approval of user fees expressed by the participants/respondents during the focus group discussions and in-depth interviews.

Expectations

Policy makers and insurers consider unnecessary utilization of services as a relevant problem in the Hungarian health care system and indicate that user fees would be an effective instrument for decreasing unnecessary visits. They overall support user fees in Hungary to promote the health- and cost-consciousness of patients. According to them the fees motivate patients to behave as conscious consumers when using health care services.

In contrast, consumers and providers mostly consider user fees as an additional resource for the health care provision. According to them, the introduction of user fees would be acceptable if the revenue collected was reinvested in health care provision in order to improve quality of services and increase the salary of physicians. Consumers, especially the group of families with children and pensioners, who are the most frequent users of services, as well as physicians, consider the lack of resources and poor service quality as the main problems in the Hungarian health care system. However, they point out that there is a high risk that the money collected through user fees would not be reinvested in service provision because of abuses.

None of the stakeholder groups consider the decrease of informal payments as an appropriate policy objective of user fees due to the differences in the magnitude, the beneficiaries and the objectives of these payments. According to their opinion, informal payments are paid directly to physicians to get better quality care and more personal attention, which cannot be purchased by user fees.

Table 4.1 *Opinion of health care stakeholders about user fees – expectations*

General statements from interviews and focus group discussions Expectations	Consumers	Physicians	Policy makers
Utilization			
The most important aim of user fees is to decrease unnecessary utilization of health care services.	x	x	x
The decrease of unnecessary utilization of health care services is an important goal.	x		
User fees induce cost-and health-consciousness of the consumers.	x	x	x
People usually go to doctor to “live social life”.	x		x
People do not go to see the doctor if it is not necessary.	x		
Those, who cannot afford, might forgo physician visits.	x	x	
Mostly providers (and medical protocols) induce the utilization of health care services, not the patient.	x		x
Those who use services unnecessary, should pay.		x	
The utilization could be controlled also by the referral system.		x	
Resource			
The most important aim of user fees is to generate additional revenue for the health care system or health care providers.	x	x	
The revenue should be reinvested in provision, to improve the quality of services.	x		
Physicians should benefit from the revenues.	x	x	
Generation of additional resources is not the elemental goal of user fees.			x
Need for additional resource in health care, but not user fees (introduced in 2007).		x	
Informal payments			
User fees have no potential to deal with informal payments (due to the low amount of fees, and tradition).	x	x	x

Note: “x” indicates if the statement occurs in the discussions with the stakeholder groups.

Experiences

All stakeholder groups in our study agree that the amount of the user fees introduced in 2007 was low (*“equal to the price of a beer”*). However, consumers and providers highlight that user fees in 2007 could induce a significant burden on frequent users of services. Some physicians argue that *“some of their patients had to forgo visits because they could not afford to pay”*. However, GPs consider the amount of the user fees introduced in 2007 *“ridiculous”*, even *“humiliating”* for the efforts that physicians make when providing health care services.

Table 4.2 *Opinion of health care stakeholders about user fees – experiences*

General statements from interviews and focus group discussions Experiences	Consumers	Physicians	Policy makers
Utilization of services			
The utilization of services decreased after the implementation of user fees.	x	x	x
The utilization of services did not decrease. ("People anyway have to go for prescriptions.")	x	x	
Those who needed, could get to the doctor (access to services has not declined).	x		
Some patients forgo visits, because they could not afford to pay.		x	
Amount			
Moderate (<i>"Price of a bear, coffee, bus ticket, milk, ice cream..."</i>)	x		x
For frequent users, user fees can be a significant burden.	x	x	
The amount was ridiculous. (<i>"No appreciation of physicians' effort."</i>)		x	
Resource			
The introduction of user fees would have been acceptable if they had been reinvested in provision and equipments to increase quality.	x		
The revenue disappeared, it was not reinvested, and no improvement was noticeable.	x		
The revenue was used to make up the shortage of the health care system.	x		
GPs could benefit from the collected revenue and could use it to develop their office.	x	x	x
After the collection/administration process, hardly left any revenue.		x	
Physicians were not the beneficiary of the collected money.		x	
Technical issues			
The collection of the user fees in 2007 resulted in too much administration work.	x	x	
The configuration of the system was expensive.	x		
The collection of fees produces queues and increased waiting time.	x		
Physicians had to handle money, which affected patient-physician relationship.		x	
General perceptions			
Complains about the quality of the services (e.g. long waiting, lack of personal attention, crowded health care facilities in bad condition, lack of resources, overwhelmed and impatient personnel).	x	x	
User fees became a political issue in 2007, which divided political parties and followers.	x	x	x
The population referendum was a wrongheaded decision.	x		x
Exemption categories were not clear, abuses could occur.		x	

Note: "x" indicates if the statement occurs in the discussions with the stakeholder groups.

Consumers and physicians mention several technical problems with the operation of the system of user fees in 2007. They recall negative experiences with the administration process resulting in queues, increased waiting time, and *"time-consuming paper work"*. According to them, the costs of the collection and administration process almost exceeded the revenues collected from user fees. Also, participants often mention that

“physicians had to handle money during visits”, which impede the patient-physician relationship.

Consumer and provider groups argue that the revenues from the fees were not reinvested in service provision neither in out-patient specialist nor in in-patient care. Participants also mention that physicians were involved in the *“hard work”* regarding the administration, furthermore physicians had to handle patients’ anger about the fees, but they were not the beneficiaries of the revenues. Nevertheless, consumers and providers appreciate that in some GP practices, user fees were reinvested in health care provision, e.g. in new equipment or the renovation of the office.

At the same time, policy makers and insurers indicate that the drop in the utilization of health care services was the most relevant positive result of the user fees introduced in 2007. They suggest that due to this reduction, time and resources became available, thus, physicians *“could spend more time with patients, who really needed care”*.

All stakeholder groups agree that user fees became a political issue in 2007 and 2008 in Hungary, which divided political parties and their followers. Participants and respondents from different groups perceive the population referendum initiated by the main opposition party of the parliament (at that time the right wing party) as a wrongheaded decision. The following arguments are provided. First, the opposition to user fees expressed by the majority of the voters during the referendum reflected mostly the political orientation of the voters and not their opposition to the fees. Furthermore, the discontent with the governing parties, e.g. the decreasing support due to the unpopular restrictive fiscal implementations and grave conflicts in internal affairs¹², could have been reflected in the results as well. Besides, those, who were not in favor of the other planned elements of the health care reforms, such as the transformation of the insurance system (i.e. replacing the single-payer insurance model by several competing for-profit Health Insurance Management Funds), might have also voted against the fees. Nevertheless, the following argument against the referendum is also popular among participants: *“Who would vote for paying extra?”*

Acceptability

As described above, policy makers and insurers support the existence of user fees as a tool to reduce unnecessary utilization of health care services and to stimulate the health-consciousness of patients.

Physicians refer mostly to ethical reasons when opposing the idea of user fees. For example, they have concerns about the access to services among low-income patients. Consumers rather argue that those who pay insurance contributions should be entitled for health care services free of charge. A frequently asked question is: *“I have been paying contributions, so why should I pay more?”*.

12 For more information see: BBC News, <http://news.bbc.co.uk/2/hi/europe/5362034.stm>

Table 4.3 *Opinion of health care stakeholders about user fees – acceptability of user fees*

General statements from interviews and focus group discussions Acceptability of user fees	Consumers	Physicians	Policy makers
Those who paid contribution should be entitled for health care services free of charge. / “I paid contribution why should I pay more?”	x		x
If I had to pay, I would expect quality service. / I would not pay for this quality.	x		
I would prefer the system of supplementary insurance for “extra” services.	x		
Instead of social health insurance, we should pay based on the utilization.	x		
Patients should pay for “extra” services (e.g. shorter waiting time, better hotel service...)	x		x
We should follow the example of Western countries. (Referring to the TV series)	x		
If it helped the health care system, I would pay.	x		
The basic benefit package should be clearly defined.			x

Note: “x” indicates if the statement occurs in the discussions with the stakeholder groups.

However, some consumers (e.g. working individuals, families with children, students) are not totally against user fees, but agree that if they had to pay, they would expect better quality. Also, the idea of user fees (or other kind of contributions) is accepted by consumer groups in the case of services which they consider “extra”. They mention shorter waiting times for an appointment, cleaner hospital wards, more personal attention and better hotel services (one-bed room, television) as examples for such “extra” services. They often refer to the Western European experiences “*the system should work like in Western countries, patients pay extra for extra services e.g. one-bedded room or television*”.

Quantitative data analysis

As a result of the cluster analysis, three basic attitude groups are distinguished based on the individual answers in the standardized questionnaire. Altogether, 44 participants/respondents are classified. One consumer and two policy makers were not classified due to the incomplete answers to the questions.

Out of the three groups, two rather agree with the necessity of user fees in Hungary. The difference between these two groups is that the first group mostly considers the decrease of unnecessary utilization of health care services as the most important objective of user fees, in accordance with the defined policy goals in 2007. While the second group considers that the most important goal of these fees should be the generation of additional resources for the health care system or for the providers. The first group might have been the main supporters of the user fees introduced in 2007. The second group is not against the implementation of such fees, but supposedly did not support the system of user fees introduced in 2007, as they have a different opinion of the objectives of the fees. The third group, the group of “skeptics”, is

either neutral or disagrees with the existence of user fees. According to them, if user fees existed, their main objective should be the generation of additional health care resources. The characteristics of the three attitude groups are presented in Table 4.4.

Table 4.4 *Attitude groups towards user fees – results of the cluster analysis*

Characteristics	Group 1 “Supporters”	Group 2 “Skeptics”	Group 3 “Oppositions”
N	14	15	16
User fees should exist Mean Lickert Scale (1-5)	4.79	4.07	2.34
Rather yes N (%)	8 (57%)	15 (100%)	4 (26%)
Rather no N (%)	6 (43%)	0 (0%)	12 (74%)
Objective: Decrease unnecessary visits N(%)	14 (100%)	0 (0%)	5 (31%)
Resource N(%)	0 (0%)	15 (100%)	11 (69%)
Some patients should be exempted. Yes (%)	10 (71%)	10 (67%)	16 (100%)
No (%)	4 (29%)	5 (33%)	0 (0%)
Stakeholders: Consumer N (% of total consumers)	3 (12%)	13 (50%)	10 (38%)
Provider N (% of total providers)	6 (43%)	2 (14%)	6 (43%)
Policy maker N (% of total policy makers)	5 (100%)	0 (0%)	0 (0%)

Policy makers and health insurers fall mostly in the first group of “supporters”, while most of the consumers fall either in the second (specifically, students, working people and families with children) or the third “skeptics” group (specifically, pensioners and people from village). According to the individual responses, health care providers in our study were divided - most of them belonging to either the first or the third group (see Table 4.4).

4.4 Discussion

Discussion of the limitations

In this chapter, we combine qualitative methods with quantitative techniques to describe experiences, expectations and approval of user fees of health care stakeholders in Hungary.

First, we have to refer to the validity of our study, which is largely qualitative. In qualitative research the categories of credibility, dependability and transferability are used to describe the trustworthiness of the research results (Hsieh and Shannon, 2005). To assure the credibility of our study we have included participants from different backgrounds, interests and with different experiences: various groups of health care consumers and providers, as well as health insurers and policy makers working at different levels of the health care system. With regard to the dependability, we consider that there were no major changes or reforms in the Hungarian health care sector during

the data collection, specifically with regard to user fees. Our findings might be also transferable for other Central European countries, where health care services were provided free of charge during the communist regimes, especially Slovakia and the Czech Republic, because of the similar experiences with user charges.

However, we have to acknowledge some limitations of the qualitative methods, such as the limited generalizeability due to the small sample size. Moreover, the data collection took place one year after the abolishment of the user fees in Hungary, thus we do not have information about the period before the referendum. Also, quantitative results should be interpreted cautiously, only in the context of the qualitative data. This is the reason why we aim to identify only basic attitude groups instead of presenting statistics of the sample.

Discussion of the results

Both quantitative and qualitative results suggest that expectations towards user fees are the main fault-line between the policy-makers and the health insurance representatives in contrast to the consumers and the providers. This points out that the main reason behind the unpopularity of the user fees in Hungary can be that consumers and providers do not support the stated policy goals of the introduction of user fees in 2007, i.e. the decrease of unnecessary visits and the replacement of informal payments. According to them, the present health care system would rather call for additional resources in order to improve quality and outcomes.

Consumers in our study would rather accept user fees if the revenues were reinvested in provisions to improve the quality of health care services. This attitude could be explained by the discontent of the population with the quality of health care services, also expressed during the focus group discussions. Previous studies also show that individuals are more willing to pay for health care services provided with better quality and quicker access (Kersnik, 2001; Harris, 2002; Pavlova, 2002). This willingness to pay for better quality care partly explains the existence of informal payments in CEE countries as well (Lewis, 2007; Gaál et al., 2006a; Szende and Culyer, 2006; Ensor, 2004). Thus, formal patient payments might have more potential in decreasing informal payments, if user fees contribute to the improvements in quality and access of services.

One of the problems with the user fees in Hungary is the mistrust of consumers, that the state can achieve an adequate and effective provision of health care services. Also, participants stated their doubts that the revenues collected would be reinvested in health care provision. This attitude is however not surprising. Based on empirical evidence, the National Audit Office (NAO) in Hungary has also frequently pointed out in its reports the lack of transparency and ineffective use of health care resources in the Hungarian health care sector (Kovács, 2010). In addition to this, negative personal experiences with the fee collection mechanism might also enhance the

resistance against user fees. However, it is probable that these pitfalls could have been improved in the process of time.

4.5 Conclusion and policy implications

This chapter has focused on the experiences and expectations of health system stakeholders in Hungary related to user fees for public health care services as well as the approval of these fees. We can conclude from the analysis that the unpopularity of the user fees in Hungary cannot be explained only by social perceptions rooted in the communist period, neither by its additional financial burden for the population. We have found that health care consumers are not against paying user fees, but they expect better quality and access to health care services.

According to our results, an acceptable goal of the introduction of user fees in Hungary could be the generation of additional financial resources in order to improve quality of service provision. However, this was not a stated policy objective of the user fees in 2007, which might partly explain the rejection of these fees. Nevertheless, our results suggest that stakeholders noticed no improvement in service quality and lacked the reinvestment of the revenues collected into service provision. It should be also taken into consideration that the introduction of the user fees was only one element of the complex reform efforts aiming at the decrease of the public deficit. Thus, it is difficult to differentiate whether the rejection of the user fees expressed during the referendum in 2008, addressed the fees or other contested areas of the reform.

The lesson for policy makers in the Central European region might be that a successful implementation of user fees requires social and political consensus on the policy objectives. This calls for more policy discussion and close communication with the public to clarify the expectations and objectives of user fees. Even if the policy objective of user fees is to control utilization of services, further research is needed on how the collected revenues could be reinvested in health care provision to provide better quality services for consumers, and on how to motivate providers, to assure the fees' acceptance in future.

Chapter 5

Exploring consumers' attitudes towards informal patient payments - the case of Hungary

Abstract

Background: Previous studies on informal patient payments have mostly focused on the magnitude and determinants of these payments while the attitudes of health care actors towards these payments are less well known.

Objective: This study aims to reveal the attitudes of Hungarian health care consumers towards informal payments to provide a better understanding of this phenomenon.

Method: For the analysis, we use data from a survey carried out in 2010 in Hungary involving a representative sample of 1037 respondents. We use cluster analysis to identify the main attitude groups related to informal payments based on the respondents' perception of and behavior related to informal payments. Multinomial logistic regression is applied to examine the differences between these groups in terms of socio-demographic characteristics, as well as past utilization and informal payments paid for health care services.

Results: We identify three main different attitudes towards informal payments: accepting informal payments, doubting about informal payments and opposing informal payments. Those who accept informal payments (mostly young or elderly people, living in the capital) consider these payments as an expression of gratitude and perceive them as inevitable due to the low funding of the health care system. Those who doubt about informal payments (mostly respondents outside the capital, with higher education and higher household income) are not certain whether these payments are inevitable, perceive them as similar to corruption rather than gratitude, and would rather use private services to avoid these payments. We find that the opposition to informal payments (mostly among men from small households and low income households) can be explained by their lower ability and willingness to pay.

Conclusions: A large share of Hungarian health care consumers has a rather positive attitude towards informal payments, perceiving them as "inevitable due to the low funding of the health care system". From a policy point-of-view, the change of this consumer attitude will be essential to deal with these payments in addition to other policy strategies.

5.1 Introduction

Informal payments for health care services present an important and challenging policy issue in most of the Central and Eastern European countries (Ensor, 2004; Gaál et al., 2006a). These payments violate the transparency in the financing of the health care systems and jeopardize the accountability of the providers. They also lead to inefficient use of health care resources (Ensor, 2004; Lewis, 2002; Gaál et al., 2006a) and inequalities in access to health care services (Balabanova and McKee, 2002; Mastilica and Bozиков, 1999; Szende and Culyer, 2006).

The definition of informal payments varies across the literature and reflects cultural differences in the perception of informal payments (Gaál et al., 2006a; Gaál and McKee, 2005; Stepurko et al., 2010). However, authors agree that these payments are unofficial, i.e. they are outside the official payment channels (not registered by the state and made without an official receipt of payment). Various types of informal payments can be distinguished based on who initiates the payments (the patient or the provider), who receives the payment (medical staff, institution), who makes the payment (patient or relatives), what the nature of the payment is (cash or in-kind), when the payment is made (given ex-ante or ex-post), what the purpose/motivation of these payments is (patient's gratitude, tip or fee for service) (Stepurko et al., 2010). Also the legal status of informal payments might differ across countries (whether it is explicitly forbidden by the law). They can be legal (not forbidden or even permitted by the law), or illegal (forbidden by law although sometimes condoned by governments) (Stepurko et al., 2010).

Overall, informal payments are seen as a rather complex phenomenon interrelated with different socio-cultural, legal-ethical and economic factors in a country. These factors have been extensively discussed in the literature (Ensor, 2004; Gaál et al., 2006a; Szende and Culyer, 2006; Lewis, 2002; Lewis, 2007; Gaál and McKee, 2005). According to the socio-cultural explanation, informal payments are considered as a tip and expression of patient's gratitude (e.g. Balabanova and McKee, 2002; Gaál and McKee, 2005). Based on the legal-ethical considerations, the existence of informal payments can be explained by the lack of control and accountability of governance structures (Gaál and McKee, 2005). The economic explanation mostly refers to the shortage of resources in the health care sector, low salaries of physicians and the existence of an informal market for services provided with better quality (e.g. (Gaál and McKee, 2005; Thompson and Witter, 2000)). However, the differentiation between these factors is rather difficult due to the "shadow" nature of the informal payments (i.e. the returns of informal payments cannot be measured and they are not compellable). Also, these factors might differ across countries. In low and middle income countries (e.g. Ukraine, Tajikistan, Armenia, Kyrgyzstan and Georgia), informal payments are an important source of health care financing (Lewis, 2000; Rechel and McKee, 2009). While in Central Europe (in Hungary for example), informal payments mostly contribute to the salary of health care personnel (Gaál et al., 2010).

Most of the empirical studies on informal patient payments aim to estimate the magnitude of these payments and their determinants, while there is less scientific evidence on the perception of health care actors related to these payments (Gaál et al., 2006b; Stepurko et al., 2010). To be able to understand why informal payments are widespread, the perceptions and attitude of health care consumers towards these payments are one of the key factors (besides factors on the provider side). Thus, evidence on this issue may support policy making related to the eradication of informal payments.

In this study, we address the issue of informal payments, defined as unofficial cash or in-kind payments given to the health care personnel, in Hungary where such payments are widespread, especially in hospital care (for more information on informal payments in Hungary see Chapter 1 and 3). The attitude of the Hungarian government towards informal payments has been rather controversial during the last decades. On the one hand, several Ministry Committees and policy measures have addressed the problem of informal payments in Hungary, including media campaigns against informal payments, the increase of the salaries in the public sector as well as the introduction of co-payments for health care services. However, despite these arrangements, there were no significant changes regarding the magnitude of these payments during this period (Gaál et al., 2006b; and Chapter 3). On the other hand, the national regulations do not explicitly forbid informal patient payments. Since July 2012, the Labor Code in Hungary prohibits receiving informal payments. However, the employer has the right to dispense the employees from this decree. Thus, in a way, the government tolerates informal payments in the health care sector. The reason for this tolerance might be that informal payments contribute to the system funding by complementing the income of health care personnel (Lewis, 2002; Gaál et al., 2006a; Lewis, 2000).

This idea is supported by the standpoint of the medical profession, as the Ethic Codex of the Hungarian Medical Chamber declares that "...one of the explanations of the existence of informal payments is the low salary of the physicians and the dysfunction of the health care system"¹³, quoted in (Gaál and McKee, 2005). The studies show that indeed, in Hungary, informal payments are paid to the medical staff and contribute to their salary (Gaál et al., 2006b; Bognár et al., 2000). However, they also point out that these payments are unequally distributed among physicians: 5% of them receive 60% of the informal payments (Gaál et al., 2006b). This can imply that beneficiaries of informal payments might have the power to block important changes in the health care system to maintain the status quo.

Regarding the consumer side, the literature on Hungary suggests that informal payments are not only the expression of gratitude of health care consumers, but a kind

13 The Ethic Codex of the Hungarian Medical Chamber.
Available at: http://www.mok.hu/upload/mok/document/MOK_etikai_kodex.pdf

of “fee for service” to receive better quality, quicker access and more attention (Gaál and McKee, 2005). More precisely, health care consumers pay informally because they are afraid that they will have less chance to obtain these services and benefits if they do not pay informally to the health care personnel (Szende and Culyer, 2006; Gaál and McKee, 2005; Mihályi, 2004). Gaál and McKee (2004) consider informal payments as a reaction to the “declining” performance in the health care system (Gaál and McKee, 2004). According to the authors, dissatisfied health care consumers, who have no possibility to satisfy their needs elsewhere or cannot openly complain, are using informal channels (such as informal payments) to obtain the care they desire.

The aim of this chapter is to examine the perceptions of Hungarian health care consumers related to informal payments. For the analysis, we use data from a survey carried out in 2010 in Hungary on a country-representative sample. We use cluster analysis to identify the main attitude groups related to informal payments. We also use multinomial logistic regression to examine the differences between these groups in terms of socio-demographic characteristics, as well as past utilization and informal payments for hospital services.

The results of the study may support policy making aiming to deal with informal payments. Although we focus on Hungary, our results are also relevant for other countries where informal payments are widespread.

5.2 Data and method

Data collection

The data used in the analysis, were collected in July 2010 in a household survey, carried out as a part of an international research project. The objective of the survey was to collect data on past payments for health care services during the last 12 months, attitudes towards informal payments, preferences and willingness to pay for health care services. The dataset contains a country representative sample of 1037 respondents. (More information on the survey and data collection can be found in Appendix A).

The questionnaire

The questionnaire includes questions about the respondents’ perception of informal cash payments and gifts in kind given to physicians and the health care staff, as well as questions about the behavior of health care consumers related to informal payments. Informal payments were defined at the outset of the questionnaire as consisting of informal cash payments (such as gratitude cash payments or under-the-table cash payments) and gifts in kind for receiving medical services. It was specified in the questions that such payments can be given to physicians, medical staff or other personnel in health care facilities.

The exact wording of the questions used in our analysis is presented in Box 5.1 and a copy of the questionnaire is provided in the Appendix B. The questions in the first block in Box 5.1 inquire the respondents whether five statements on behavior related to informal payments apply to them personally. Questions in the second block (see Box 5.1) inquire whether respondents agree with six different statements about informal payments. In particular, respondents were asked whether they consider informal payments as a form of corruption or as gratitude, whether they accept informal payments as inevitable because of the low health care funding, and whether they agree that these payments should be eradicated.

Box 5.1 *Statements on informal payments used in the cluster analysis*

Do the following statements apply to YOU PERSONALLY? (yes/somewhat/no)
<ul style="list-style-type: none"> • q1: I will feel UNCOMFORTABLE if I leave the physician's office without a gratitude cash payment or gift in kind. • q2: I would RECOGNISE the hint of physicians or medical staff for an informal cash payment or a gift in kind. • q3: I will REFUSE to pay if a physician or medical staff ask me to pay informally for a medical service. • q3: I will PREFER to use private medical services if I have to pay informally for public medical services. • q4: If I have SERIOUS PROBLEMS with my health, I will be ready to pay as much as I have in order to get better medical services.
Do you AGREE with the following statements? (yes/somewhat/no)
<ul style="list-style-type: none"> • q5: Informal CASH payments to physicians and medical staff are similar to corruption. • q6: Gifts IN KIND to physicians and medical staff are similar to corruption. • q7: Informal CASH payments to physicians and medical staff are an expression of gratitude. • q8: Gifts IN KIND to physicians and medical staff are an expression of gratitude. • q9: Informal cash payments and gifts in kind to physicians and medical staff are INEVITABLE because of the low funding of the health care sector. • q10: Cash or gifts in kind, given informally to physicians and medical staff, should be ERADICATED.

Other parts of the questionnaire included questions on the utilization and payments for physician services (including any physician in primary and out-patient specialist care both in the public and private sector, excluding dentists) and hospitalization (including 1 day surgery as well as longer hospitalizations) during the preceding 12 months as well as socio-demographic characteristics.

Analysis

We divide the respondents into attitude groups based on their individual responses. By applying the method of hierarchical cluster analysis with the Ward method, we explore patterns in the respondents' answers. Ward method ensures the homogeneity and relatively equal size of the attitude groups. In a cluster analysis, the number of clusters is subjective. However, there are statistical tests, which can be used as a guidance to identify the "optimal" number of clusters. The two most frequently applied statistical tests - Duda-Hart test and Calanski Harabas test, provide us with a test on each stage of the clustering for deciding on whether or not the splitting of a cluster is justifiable (Duda et al., 2001; Milligan and Cooper, 1985). In our analysis, both tests suggest 2 clusters as the best option (one group for and one group against informal payments). However, we decide to use 3 clusters, as we find it interesting to study the differences within the group of those who are against informal payments. Finally, we set the final clusters using k-centered clustering with 3 groups, setting starting points as random 3 observations. Differences between the variables are calculated using the method of Euclidean-distance. We use ANOVA to test whether the clusters significantly differ from each other in terms of the variables used in the cluster analysis using test.

After the formation of the three groups, we apply multinomial logistic regression analysis to examine the association between socio-demographic characteristics and cluster memberships. We estimate two models. In the first one, we use the cluster indicator (Group = 1, 2, 3) as a dependent variable and socio-demographic characteristics (such as age, gender, education of the respondent, logarithm of the monthly net household income, size of the household, place of residence of the household) as explanatory variables. In the second model, we also include past utilization and informal payments for physician or hospital services as explanatory variables. To examine the effect of past utilization and payments, we have formulated three different groups for each service: those who did not visit a physician or were not hospitalized during the last 12 months; those who visited a physician or were hospitalized but did not pay informally; those who visited a physician or were hospitalized and paid informally. To define these groups, in the regression analysis, we include two indicators per service: (1) for not using a given service and (2) for using the services and paying informally. The categories that refer to using a given services and not paying informally are taken as reference categories.

5.3 Results

Results of the cluster analysis

Altogether, 924 persons gave valid answers to all questions in Box 5.1 and were classified into three groups (following the procedure described in the method section): Group 1 consists of 311 members, Group 2 with 316 members and Group 3 with 297 members. Table 5.1 presents the characteristics of the three groups based on the variables used in the cluster analysis. According to the results of ANOVA analysis (Table 5.2) the groups significantly differ in terms of all variables used in the cluster analysis.

Table 5.1 Perceptions of informal payments – results of the cluster analysis

Group	I	II	III	Total
N	311	316	297	924
q1: I will feel UNCOMFORTABLE if I leave the physician's office without a gratitude cash payment or gift in kind				
No	170 (54.7%)	214 (67.7%)	252 (84.8%)	636 (68.8%)
Somewhat	72 (23.2%)	50 (15.8%)	30 (10.1%)	152 (16.5%)
Yes	69 (22.2%)	52 (16.5%)	15 (5.1%)	136 (14.7%)
q2: I would RECOGNISE the hint of physicians or medical staff for an informal cash payment or a gift in kind.				
No	37 (11.9%)	30 (9.5%)	57 (19.2%)	124 (13.4%)
Somewhat	72 (23.2%)	67 (21.2%)	74 (24.9%)	213 (23.1%)
Yes	202 (65.0%)	219 (69.3%)	166 (55.9%)	587 (63.5%)
q3: I will REFUSE to pay if a physician or medical staff ask me to pay informally for a medical service.				
No	134 (43.1%)	67 (21.2%)	49 (16.5%)	250 (27.1%)
Somewhat	85 (27.3%)	88 (27.8%)	51 (17.2%)	224 (24.2%)
Yes	92 (29.6%)	161 (50.9%)	197 (66.3%)	450 (48.7%)
q4: I will PREFER to use private medical services if I have to pay informally for public medical services.				
No	171 (55.0%)	3 (0.9%)	212 (71.4%)	386 (41.8%)
Somewhat	76 (24.4%)	68 (21.5%)	70 (23.6%)	214 (23.2%)
Yes	64 (20.6%)	245 (77.5%)	15 (5.1%)	324 (35.1%)
q5: If I have SERIOUS PROBLEMS with my health, I will be ready to pay as much as I have in order to get better medical services.				
No	27 (8.7%)	23 (7.3%)	119 (40.1%)	169 (18.3%)
Somewhat	67 (21.5%)	87 (27.5%)	123 (41.4%)	277 (30.3%)
Yes	217 (69.8%)	206 (65.2%)	55 (18.5%)	478 (51.7%)
q6:1 Informal CASH payments to physicians and medical staff are similar to corruption.				
No	163 (52.4%)	7 (2.2%)	12 (4.0%)	182 (19.7%)
Somewhat	127 (40.8%)	105 (33.2%)	73 (24.6%)	305 (33.0%)
Yes	21 (6.8%)	204 (64.6%)	212 (71.4%)	437 (47.3%)
q7: Gifts IN KIND to physicians and medical staff are similar to corruption.				
No	237 (76.2%)	79 (25.0%)	61 (20.5%)	377 (40.8%)
Somewhat	68 (21.9%)	112 (35.4%)	91 (30.6%)	271 (29.3%)
Yes	6 (1.9%)	125 (39.6%)	145 (48.8%)	276 (29.9%)
q8: Informal CASH payments to physicians and medical staff are an expression of gratitude.				
No	17 (5.5%)	125 (39.6%)	157 (52.9%)	299 (32.4%)
Somewhat	86 (27.7%)	134 (42.4%)	117 (39.4%)	337 (36.5%)
Yes	208 (66.9%)	57 (18.0%)	23 (7.7%)	288 (31.2%)
q9: Gifts IN KIND to physicians and medical staff are an expression of gratitude.				
No	7 (2.3%)	53 (16.8%)	95 (32.0%)	155 (16.8%)
Somewhat	47 (15.1%)	138 (43.7%)	141 (47.5%)	326 (35.3%)
Yes	257 (82.6%)	125 (39.6%)	61 (20.5%)	443 (47.9%)
q10: Informal cash payments and gifts in kind to physicians and medical staff are INEVITABLE because of the low funding of the health care sector.				
No	51 (16.4%)	137 (43.4%)	180 (60.6%)	368 (39.8%)
Somewhat	117 (37.6%)	90 (28.5%)	80 (26.9%)	286 (31.0%)
Yes	144 (46.3%)	89 (28.2%)	37 (12.5%)	270 (29.2%)
q11: Cash or gifts in kind, given informally to physicians and medical staff, should be ERADICATED.				
No	128 (41.2%)	15 (4.7%)	15 (5.1%)	158 (17.1%)
Somewhat	130 (41.8%)	79 (25.0%)	58 (19.5%)	267 (28.9%)
Yes	53 (17.0%)	222 (70.3%)	224 (75.4%)	499 (54.0%)

Regarding the perceptions of informal payments, most of the respondents in Group 2 and Group 3 agree (65 and 71 percent respectively) or somewhat agree (33 and 25 percent respectively), that informal cash payments to physicians and medical staff are similar to corruption. Respondents in Group 1 either do not agree (52 percent) or only somewhat agree (41 percent) with this statement.

In Group 1, most of the respondents agree (67 percent) or somewhat agree (28 percent) that informal cash payments to physicians and medical staff are an expression of gratitude. Most of the respondents in Groups 2 and 3 somewhat agree (42 and 39 percent) or do not agree (40 and 53 percent) with this statement.

The results are similar regarding gifts in kind. However, in general, the shares of those who agree that gifts in kind given to physicians and medical staff are similar to corruption are lower in Group 1, 2 and 3 (2, 40 and 50 percent respectively) compared to cash payments (7, 65 and 71 percent). The shares of those who agree that gifts in kind given to physicians and medical staff are an expression of gratitude are higher in all groups (83, 40 and 21 percent) compared to cash payments (67, 18, 8 percent).

Most of the respondents in Group 1 agree (46 percent) or somewhat agree (38 percent) that informal cash payments and gifts in kind to physicians and medical staff are inevitable because of the low funding of the health care sector. Group 2 is rather divided regarding this question, most of the respondents do not agree (43 percent), while 29 and 28 percent somewhat agree or agree with this statement. In Group 3, most of the respondents do not agree (61 percent) or somewhat agree (27 percent) with this statement.

In Group 1, most of the respondents somewhat agree (42 percent) or agree (41 percent) that cash or gifts in kind given informally to physicians and medical staff, should be eradicated. However, Group 2 and 3 are more likely to agree with this statement (in Group, 70 percent agree and 25 percent somewhat agree while in Group 3, these shares are 75 and 20 percent).

Table 5.2 Perceptions of informal payments – results of ANOVA

	Group I	Group II	Group III	ANOVA
Questions	mean (sd)	mean (sd)	mean (sd)	F (p)
q1	0.68 (0.82)	0.49 (0.76)	0.20 (0.51)	33.93 (0.000)
q2	1.53 (0.70)	1.60 (0.66)	1.37 (0.79)	8.40 (0.000)
q3	0.86 (0.84)	1.30 (0.80)	1.50 (0.76)	49.81 (0.000)
q4	0.66 (0.80)	1.77 (0.45)	0.34 (0.57)	449.50 (0.000)
q5	1.61 (0.64)	1.58 (0.62)	0.78 (0.74)	148.42 (0.000)
q6	0.54 (0.62)	1.62 (0.53)	1.67 (0.55)	391.09 (0.000)
q7	0.26 (0.48)	1.15 (0.79)	1.28 (0.78)	195.03 (0.000)
q8	1.61 (0.59)	0.78 (0.73)	0.55 (0.64)	224.37 (0.000)
q9	1.80 (0.45)	1.23 (0.72)	0.89 (0.72)	160.73 (0.000)
q10	1.30 (0.73)	0.85 (0.83)	0.52 (0.71)	80.67 (0.000)
q11	0.76 (0.72)	1.66 (0.57)	1.70 (0.56)	226.10 (0.000)

Note: Wording of the questions can be found in Table 5.1 and in Box 5.1.

Regarding the respondents' perceived behavior towards informal payments, respondents in Group 3 are less likely to feel uncomfortable when leaving the physician's office without a gratitude cash payment or gift in kind (85 percent would not feel uncomfortable) compared to Groups 1 and 2 (55 percent and 68 percent respectively). Groups 1 and 2 are more likely to feel uncomfortable in this situation (in Group 1 22 percent would feel uncomfortable, and 17 percent in Group 2) compared to Group 3, where only 5 percent would feel uncomfortable. Respondents in Group 3 are also less likely to recognize the hint of physicians or medical staff for an informal cash payment or a gift in kind (19 percent would not recognize such hint) compared to the Groups 1 and 2 (12 percent and 10 percent respectively). Respondents in Group 1 are less likely to refuse to pay if a physician or medical staff asks them to pay informally for a medical service (43 percent would not refuse to pay) compared to Groups 2 and 3 (21 and 17 percent respectively). Respondents in Group 2 are more likely to prefer to use private services to avoid paying informally (78 percent would use private services), while Group 3 is less likely to prefer to use private services (only 5 percent would use). This share is 21 percent in Group 2. Respondents in Group 3 are less likely to be ready to pay as much as they have in order to get better medical services in case of serious health problems, 40 percent would not be ready to pay as much as they have, compared to 9 percent and 7 percent in Groups 1 and 2 respectively.

Based on the above characteristics of the three groups, we define Group 1 as accepting informal payments, Group 2 as doubting about informal payments and Group 3 as opposing informal payments.

Results of the multinomial logistic regression

Socio-demographic characteristics of the respondents are presented in Table 5.3 separately for the three attitude groups, i.e. for those who accept (Group 1), doubt (Group 2) and oppose (Group 3) informal payments respectively.

The results of the multinomial logistic regression models are presented in Table 5.4 and 5.5. In particular, Table 5.4 shows the predicted probability of belonging to each attitude groups. Table 5.5 presents the original and estimated cluster memberships. In the first model (where only socio-demographic features are included as independent variables), 43.5 percent of the cases are well predicted. In the extended model (where the past utilization and informal payments are also included as independent variables) 47.1 percent of the cases are predicted correctly.

The probability of belonging to Group 1 (accepting informal patient payments) is significantly higher for those who are under the age of 35 (by 8 percentage points), or above 60 (by 9 percentage points). This probability is significantly higher also for those who are living in the capital (by 12 percentage points), however, significantly lower for those who are living in a village (by 8 percentage points). Tertiary education also increases the probability of belonging to this group by 10 percentage points. The probability of belonging to Group 2 (doubting informal patient payments) is significantly higher for women (by 6 percentage points), at the same time significantly lower for those who are either living in the capital (by 17 percentage points) or have finished primary education (by 12 percentage points). The probability of belonging to Group 3 (who opposing informal patient payments) is significantly higher for men (by 7 percentage points), while each additional household member decreases the probability of belonging to this group by 3 percentage points.

When we include the past utilization and informal payments for health care services in the model, we observe that these variables explain group membership very well. Those who visited a physician during the last 12 months and paid informally for this type of service, are more likely to belong to Group 1, which mostly accepts informal payments (the probability increases by 27 percentage points), and are less likely to belong to Group 3, which mostly opposes informal payments (the probability decreases by 22 percentage points). Those who paid informally for hospitalization during the last 12 months are also less likely to belong to Group 3 (the probability decreases by 16 percentage points). However, those who were not hospitalized during the last 12 month, are more likely to belong to Group 2 which has doubts about informal payments (the probability increases by 9 percentage points).

Table 5.3 Attitude towards informal payments – socio-demographic characteristics by clusters

Group	I	II	III	Total	Missing
N	311	316	297	924	113
Socio- demographic characteristics					
Age group					
<35	104 (33.4%)*	100 (31.7%)	87 (29.3%)	291 (31.5%)	36 (31.9%)
35-59	119 (38.3%)**	148 (46.8%)	130 (43.8%)	397 (43.0%)	33 (29.2%)*
≥60	88 (21.9%)*	68 (18.0%)*	80 (26.9%)	236 (25.5%)	44 (38.9%)*
Gender					
Man	144 (46.3%)	140 (44.3%)*	151 (50.8%)	435(47.1%)	46 (40.7%)
Woman	167 (53.7%)	176 (55.7%)*	146 (49.2%)	489(52.9%)	67 (59.3%)*
Residence					
Village	71 (22.8%)*	101 (32.0%)	92 (31.0%)	264 (28.6%)	39 (34.5%)
Town	166 (53.4%)	182 (57.6%)*	149 (50.2%)	497 (53.8%)	55 (48.7%)
Capital	74 (23.8%)*	33 (10.4%)*	56 (18.9%)	163 (17.6%)	19 (16.8%)
Education					
Primary	64 (20.6%)	40 (12.7%)*	71 (23.9%)	175 (18.9%)	35 (31.0%)*
Secondary/vocational	197 (63.3%)	233 (73.7%)*	198 (66.6%)	628 (68.0%)	67 (59.3%)*
Tertiary	50 (16.1%)*	43 (13.6%)*	28 (9.4%)	121 (13.1%)	11 (9.7%)
Health					
Very bad. bad	43 (13.8%)	28 (8.9%)*	38 (12.8%)	109 (11.8%)	14 (12.4%)
Fair	82 (26.4%)	79 (25.0%)*	90 (30.3%)	251 (27.2%)	33 (29.2%)
Good	98 (31.5%)	134 (42.4%)*	88 (29.6%)	320 (34.6%)	35 (31.0%)
Very Good. excellent	88 (28.3%)	75 (23.7%)	81 (27.3%)	244 (26.4%)	31 (27.4%)
Age					
Mean	46.4	44.6*	47.0	46.0	49.4*
Sd	(18.4)	(15.9)	(17.2)	(17.2)	(19.96)
Income					
Mean	164 727*	188 230*	152 787	168 697	157 021*
Sd	(81 808)	(100 351)	(100 081)	(95 441)	(79 959)
N	301	299	292	892	105
Household					
Mean	2.6	2.9*	2.5	2.7	2.5
Sd	(1.2)	(1.3)	(1.3)	(1.3)	(1.5)
Past utilization and payments					
Physician visit					
N	310	315	296	921	112
Not visited	60 (19.4%)	55 (17.5%)	61 (20.6%)	176 (19.1%)	31 (27.7%)*
Visited and not paid	158 (51.0%)*	211 (67.0%)*	214 (72.3%)	583 (63.3%)	69 (61.6%)
Visited and paid	92 (29.7%)*	49 (15.6%)*	21 (7.1%)	162 (17.6%)	12 (10.7%)*
Hospitalization					
N	311	315	297	923	113
Not hospitalized	228 (73.3%)*	258 (81.9%)	239 (80.5%)	725 (78.6%)	92 (81.4%)
Hospitalized not paid	34 (10.9%)*	27 (8.6%)*	45 (15.2%)	106 (11.5%)	16 (14.2%)
Hospitalized and paid	49 (15.8%)*	30 (9.5%)*	13 (4.4%)	92 (10.0%)	5 (4.4%)*

Note. Stars indicate significant difference from the 3rd group in terms of mean (t test), or proportion (z-test).

In the case of “missing” group, stars indicate significant difference from the Total. * $p < 0.1$; ** $p < 0.05$;

*** $p < 0.01$.

Table 5.4 Attitude towards informal payments – results of the multinomial logistic regression analysis

Model	Model 1			Model 2 (extended model)		
VARIABLES	Pr (cluster=1)	Pr (cluster=2)	Pr (cluster=3)	Pr (cluster=1)	Pr (cluster=2)	Pr (cluster=3)
Age<35	7.54* (1.89)	-3.67 (-0.99)	-3.87 (-1.03)	7.83* (1.91)	-2.87 (-0.75)	-4.95 (-1.32)
Age≥60	8.48* (1.92)	-4.74 (-1.15)	-3.74 (-0.92)	6.36 (1.39)	-4.09 (-0.96)	-2.27 (-0.55)
Gender: woman	1.73 (0.53)	5.68* (1.75)	-7.41** (-2.26)	0.99 (0.29)	5.32 (1.60)	-6.32* (-2.00)
Residence: capital	12.4*** (2.70)	-16.9*** (-4.49)	4.55 (1.00)	12.1** (2.54)	-16.9*** (-4.28)	4.72 (1.02)
Residence: village	-7.56** (-2.02)	2.55 (0.68)	5.00 (1.29)	-8.66** (-2.26)	2.41 (0.63)	6.25 (1.58)
Education: primary	5.78 (1.25)	-12.1*** (-2.96)	6.32 (1.40)	5.28 (1.10)	-11.4*** (-2.68)	6.17 (1.33)
Education: tertiary	9.64* (1.83)	-2.34 (-0.48)	-7.30 (-1.50)	9.74* (1.78)	-2.23 (-0.45)	-7.51 (-1.56)
Health status: bad, very bad	7.38 (1.36)	-3.66 (-0.70)	-3.72 (-0.77)	4.72 (0.84)	-2.99 (-0.54)	-1.72 (-0.33)
Ln(income)	-0.71 (-0.23)	8.26** (2.56)	-7.55** (-2.54)	-3.06 (-0.96)	8.63*** (2.60)	-5.56* (-1.87)
Number of household members	0.69 (0.47)	2.16 (1.52)	-2.84* (-1.96)	1.16 (0.77)	2.40 (1.64)	-3.56** (-2.41)
Not visited physician	- -	- -	- -	6.89 (1.46)	-6.05 (-1.44)	-0.84 (-0.20)
Visited physician and paid informally	- -	- -	- -	27.1*** (5.34)	-4.91 (-1.05)	-22.2*** (-5.91)
Not hospitalized	- -	- -	- -	-0.55 (-0.10)	8.81* (1.72)	-8.26 (-1.57)
Hospitalized and paid informally	- -	- -	- -	8.18 (1.00)	7.90 (0.92)	-16.1*** (-2.68)
Intercept (probability)	34.26	32.72	33.03	34.24	33.76	32.00
Observations	892	892	892	888	888	888
Pseudo R-squared	0.0395	0.0395	0.0395	0.0704	0.0704	0.0704
Chi2 test	77.34	77.34	77.34	137.3	137.3	137.3
P	0.000	0.000	0.000	0.000	0.000	0.000

Note: z-statistics in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Socio-demographic characteristics of those respondents, who were not classified due to missing responses, are also presented in Table 5.3. They are significantly older, more frequently women, finished primary education, and have a significantly lower household income, compared to those who answered all questions presented in Box 5.1 and were included in the analysis. According to the predictions of the extended model (see Table 5.5), including socio-demographic features, as well as past utilization and payments for health care services, 45 percent of those with missing responses would belong to Group 3.

Table 5.5 *Attitude towards informal payments – original and predicted cluster membership*

Model 1						
Cluster/predicted cluster	1	2	3	Predicted N	Missing	Total
1	107 (35.7%)	109 (36,3%)	85 (28.3%)	301	10	311
2	57 (19.2%)	171 (57,6%)	71 (23.9)	299	17	316
3	76 (26.1%)	106 (36,4%)	110 (37.8%)	292	5	297
Missing	30 (28.6%)	37 (35,2%)	38 (36.2%)	105	8	113
43.5% of the cases the predicted cluster is equal to the original cluster						
Model 2 (extended model)						
Cluster/predicted cluster	1	2	3	Predicted N	Missing	Total
1	112 (37.3%)	98 (32.7%)	90 (30.0%)	300	11	311
2	61 (20.5%)	152 (51.2%)	84 (28.3%)	297	19	316
3	49 (16.8%)	88 (30.2%)	154 (52.9%)	291	6	297
Missing	26 (25.0%)	31 (29.8%)	47 (45.2%)	104	9	113
47.1% of the cases the predicted cluster is equal to the original cluster						

5.4 Discussion

Discussion of the results

In this study, we have identified three different attitude groups of Hungarian health care consumers based on their opinion and perceived behavior concerning informal payments. This section discusses the main findings to obtain better insights in the consumers' motivation to make informal payments for health care services.

We find Group 1 – involving either young people or elderly who predominantly live in the capital – to be the most tolerant towards informal payments as they mostly perceive these payments as inevitable due to the low funding of the health care system. The perception and attitude of this group corresponds with the “economic” explanation of informal payments, which refers to the shortage of resources in the health care sector, low salary of physicians and the existence of informal market for services with better quality (Gaál et al., 2010; Gaál et al., 2006b; Lewis, 2000).

Thus, one of the explanations for this attitude might be the perceived low quality of health care services in Hungary. Qualitative results show that health care consumers are not satisfied with the performance of the health care system, and associate the low quality with the lack of financial and human resources in the Hungarian health care system (see Chapter 4; Baji and Gulácsi, 2010). This perception might create a motivation for health care consumers to pay informally for health care services in order to obtain better care. According to the theory of Gaál and McKee (2004), who extend Hirschman's theory of "Exit, Voice, Loyalty" on the informal payments phenomenon, informal payments can be interpreted as a reaction to the "declining" performance in the health care system. Dissatisfied health care consumers who have no possibility to satisfy their needs elsewhere (exiting the system is not possible) or cannot openly make complains (voice is not an option) are using informal channels, such as payment or connections to improve their situation, i.e. to assure better care (Gaál and McKee, 2004). The same idea is behind the theory of "Alternative Politics", which refers to the "do-it-yourself" approach adopted by citizens to address their dissatisfaction with governmental services and find other means (e.g. informal payments) of satisfying their needs (Cohen, 2011).

Another explanation for the tolerant attitude towards informal payments observed in Group 1 is the perceived low salary of the health care personnel, which according to the Group might legitimate the existence of informal payments. The definition of informal payments in the Ethic Codex of the Hungarian Medical Chamber – presented in the background section - suggests that informal payments keep physicians working in public health care institutions. Consequently, informal payments are an indication of the solidarity of health care consumers with the medical personnel. A similar finding was also reported in a previous study in Hungary, where 70% of the respondents agree or rather agree that the existence of informal payments indicate that physicians are "underpaid". Also, 67% of the respondents in that study agreed or rather agreed that until physicians do not get proper salary they have the right to accept informal payments (Bognár et al., 2000). This may explain our finding that individuals in Group 1 consider informal payments as inevitable and that they feel rather uncomfortable when leaving the physician's office without gratitude cash payments or gifts in kind. They would also not refuse to pay informally if asked by the medical personnel.

Individuals in Group 1 do not consider informal payments as a corruption practice, consequently, they would not use private services either to avoid these payment. The explanation of this finding might be that the national legislation itself, do not explicitly forbid these payments (as mentioned in the background section). Furthermore, the Ethical Codex of the Hungarian Medical Chamber openly declares that these payments "within certain limits are legal and legitimate"¹⁴.

Group 2 – with individuals mostly living outside of the capital, completed higher

¹⁴ The Ethic Codex of the Hungarian Medical Chamber.
Available at: http://www.mok.hu/upload/mok/document/MOK_etikai_kodex.pdf

education, and having a higher household income, doubts informal payments. This group is divided regarding the statement that informal payments are inevitable because of the lack of resources in the health care system. However, they definitely consider informal cash payments as a corruption practice, and would rather use private services to avoid these payments. This attitude group rather supports the “legal-ethical explanation” of informal payments. According to this explanation, informal payments are rather the consequence of the lack of control and accountability of the governance (Gaál et al., 2006b), than of the lack of resources in the health care system. We also find that individuals in this group are both willing to pay for their health (they are the most ready to pay as much as they can in case of a serious health problem) and able to pay for health care services (since we find a significantly higher household income in this group compared to other groups). Thus, in their case, the extension of formal payment channels or the development of the private health care market might be an option to deal with informal payments.

Group 3 (mostly men from small households and low household income) is the least tolerant group towards informal payments and it is least likely to accept to pay informally for health care services as well. Individuals in this group consider informal payments as a corruption practice and do not agree that these payments are inevitable because of the low funding of the health care system. Similar to Group 2, the attitudes of this group correspond with the “legal-ethical explanation” of informal payments. However, our results suggest that this is not the only explanation for the attitude of this group. We find that although this group considers informal payments as a corruption practice, they would not use private services to avoid these payments. Besides, this is the group where the least respondents accept to pay for their health care in case of a serious health problem. These findings might suggest that they are less willing to pay for health care in general because either they object to pay for health care services in any form (formal or informal) or they are less able to pay for services (as we find a significantly lower household income among this group). Thus, they might be opposed to the increase in private financing in health care and the extension of formal payment channels. Since they are less likely to pay informally, they might also experience discrimination in the provision compared to those who accept informal payments and pay informally (Group 1 and 2).

As we mentioned in the introduction, previous studies on informal payments have mostly focused on the magnitude of the payments. In a recent systematic literature review, Stepurko et al. (2010) identify only six studies examining consumers or patients’ attitude towards informal payments in different countries (Stepurko et al., 2010; see Burak and Vian, 2007; Tatar et al., 2007; Shishkin et al., 2003; Belli 2003; Balabanova and McKee, 2002; Shahriari et al., 2001). These studies are rather divided regarding their conclusions, namely the attitudes reported in these studies vary from strongly negative to tolerant, depending on the motivation of the payment. Another six studies examine the perception of informal payments. Three studies report that informal patient payments are perceived as tradition and gratuity (Liaropoulos et al., 2008; Belli et al., 2004; Shahriari et al., 2001), and two studies report that these payments are perceived as illegal behavior and corruption (Cockcroft et al., 2008; Litvak et al., 2001). One

study mentions both perceptions (Balabanova and McKee, 2002). Similarly to our findings, the above-mentioned studies also report that consumers tolerate informal payments when these payments are initiated by the patient, or can be explained by the economic conditions, e.g. lack of resources, low salary of the physicians (See e.g. Belli 2003; Cockcroft et al., 2008). In contrast to previous studies however, we use attitudes and perceptions to identify attitude groups that prevail in a country and to examine the characteristics of these groups. This enables us to better understand the motivations of different attitude groups in Hungary. The application of our analysis on data from other countries could show the cross-country relevance of our conclusions.

Discussion of the limitations

In this section, we highlight some limitations of our study. The data collection was carried out via face-to-face interviews. This reduces non-responses, as the interviewer can guide the respondent (Saris and Gallhofer, 2007). However, informal payments are a sensitive topic. Therefore, when answering the questions on informal payments, some respondents could feel uncomfortable and would give socially desirable answers. Although we recognize that the collection of sensitive data via a self-administrated questionnaire has a higher potential to reduce this bias (Johnson and Clarke, 2003; Onsembe, 2002), we opted for a face-to-face interview in our survey to reduce the non-response. Altogether 113 respondents did not answer some questions and therefore were excluded from the cluster analysis. To address this issue we compared the socio-demographic characteristics of this group to those respondents who gave valid answers to identify significant differences between them.

Furthermore, we find that half of the respondents (51 percent) agree (or rather agree) that informal payments are an expression of gratitude, but at the same time consider these payments similar to corruption. This might suggest that respondents give inconsistent answers. However, the same phenomenon is found in a previous study as well (Gaál and McKee, 2005). Hungarian health care consumers often use the term gratitude to explain the motivation behind informal payments, even though in most of the cases they pay informally in order to receive better quality care, quicker access or more attention. One explanation of this puzzle might be that in Hungary the expression “gratitude” is used to denominate informal payments. Nevertheless, the Ethic Codex of the Hungarian Medical Chamber also defines these payments as an expression of gratitude.

5.5 Conclusion and policy implications

In this study, we have identified the main attitudes toward informal patient payments among Hungarian health care consumers: accepting informal payments, doubting informal payments and opposing informal payments.

From a policy point of view, the attitude of the first group is the most challenging, as they consider informal payments as an expression of gratitude and at the same time inevitable because of the low funding of the health care system. This corresponds with the economic explanation of informal payments, which is also enhanced by the health care providers' side in Hungary.

The behavior of the second group – those who doubt informal payments - is more promising from a policy point-of-view. They regard these payments as similar to corruption and would use private services to avoid these payments. Thus, in their case, the extension of formal payment channels or the private market of services might be an option to deal with informal payments, as they are both willing and able to pay for health care services.

We find that the reason behind the opposition towards informal payments observed in the third group is their lower acceptance and ability to pay for the services, rather than the “unofficial nature” of these payments. In their case, policy makers should focus on equity issues as they might also experience discrimination in the provision compared to those who accept informal payments and pay informally.

If the government wants to make a commitment to fight against informal payments, one of the essential steps should be the change of this positive attitude towards informal payments found in this study. Until health care consumers get the message both from the government and from the health care personnel, that these payments are acceptable and legitimate (moreover necessary), it cannot be expected that tolerant attitude towards informal payments will change. The tolerant attitude might change if these payments would be strongly discouraged by the government regulations. Also, they will be less acceptable for the public if it is highlighted that informal payments are not the solution to the wage problems for the majority of the health care personnel as only a small group of physicians benefit from these payments (these problems require other solutions). On the contrary, informal payments create adverse incentives for their beneficiaries, which can be against the general policy objectives, and they might have the power to block important changes in health care system to maintain the status-quo (Gaál et al., 2006a).

We recognize however, that the change in public attitudes will be only one step in policy strategies aiming at the eradication of informal patient payments. It should complement (rather than substitute) other important steps such as improving quality of and access to public health care services, as well as securing sufficient resources for the public health care sectors. Moreover, the issue of informal payments cannot be addressed as a separate problem of the health care system alone. Fundamental changes in and outside the health care system are necessary to achieve appreciable results regarding the eradication of these payments.

Chapter 6

The link between past informal payments and willingness of the Hungarian population to pay formal fees for health care services – results from a contingent valuation study

Abstract

Objective: In this Chapter we examine the willingness to pay formal fees for health care services and how this willingness to pay is associated with past informal payments.

Method: We use data from a survey carried out in Hungary in 2010 among a representative sample of 1037 respondents. Contingent valuation method is used to elicit the willingness to pay official charges for health care services covered by social health insurance if certain quality attributes regarding the health care facility, access to the services and health care personnel are guaranteed. A bivariate probit model is applied to examine the relationship between willingness to pay and past informal payments.

Results: We find that 66 percent of the respondents are willing to pay formal fees for specialist visits and 56 percent are willing to pay for planned hospitalizations, if these services are provided with certain quality and access attributes. We find that the willingness to pay formal fees is positively associated with past informal payments. The probability that a respondent is willing to pay official charges for health care services is 22 percentage points higher for specialist examinations and 45 percentage points higher for hospitalization if the respondent paid informally during the last 12 months.

Conclusion: To establish an adequate system of formal patient payments in Hungary, the regulation, measurement and monitoring of the quality of health care services covered by the social health insurance are essential. The introduction of formal fees should be accompanied by adequate service provision to assure the acceptance of the fees. Furthermore, our results suggest that the problem of informal patient payments may remain even after the implementation of user fees.

6.1 Introduction

Currently, in Hungary, there are no official co-payments for most of the health care services covered by social health insurance (see Chapter 1). However, health care consumers often complain about poor service quality and attribute this to the lack of human and financial resources (see Chapter 4; Baji and Gulácsi, 2010). Hence, those who are able to pay, either purchase services on the private health care market, which is done quite frequently in dental care, gynecology and diagnostic services, or pay informally for health care services covered by the social health insurance in the hope of getting better quality care (Gaál et al., 2006a; Gaál and McKee, 2005). Empirical evidence shows that informal payments are widespread in Hungary, especially for in-patient care, where around half of the patients pay informally to health care personnel (see Chapter 2; Gaál et al., 2006b; Szende and Culyer, 2006; Bognár et al., 2000).

Previous qualitative studies suggest that Hungarian health care consumers are not against paying official charges for the use of health care services covered by the social health insurance, but they expect better quality and access in return (see Chapter 4; Baji and Gulácsi, 2010). In this chapter, we aim to test this finding using quantitative data collected in 2010 in Hungary among a country-representative sample. Using a contingent valuation method, we examine whether health care consumers in Hungary are willing to pay officially for health care services covered by the social health insurance if certain quality attributes (regarding the health care facility, access to the services and health care personnel) are guaranteed. We are particularly interested in the link between the willingness to pay and past informal payments.

Given the focus of the study, we need to refer to the former experiences with user fees in Hungary, implemented in 2007 and abolished one year later as a result of a population referendum, where more than 80 percent of the voters supported the abolishment of the fees (for more information see Chapter 1 and 4). Consumers also expected that the revenues collected through user fees would be reinvested in the provision of services, but did not perceive any change in the quality of care after the implementation of these fees (see Chapter 4; Baji and Gulácsi, 2010). Furthermore, consumers continued to pay informally. The probability of paying informally decreased in the short run only among those health care consumers who were less able to pay (see Chapter 3).

The Hungarian case is not unique. Experiences in Central and Eastern European (CEE) countries (i.e. Slovakia, Hungary and the Czech Republic) show that the implementation of user fees for health care services is a rather sensitive political issue (see Chapter 1 and 4; Tambor et al., 2011; Hall, 2009; Rechel and McKee, 2009). In this region, informal payments are a common characteristic of health care provision (e.g. Rechel and McKee, 2009; Lewis, 2002). As these payments create adverse incentives for their beneficiaries, which might impede the realization of the

goals of health care reforms, and lead to inefficient use of resources as well as to inequalities in access to health care, it is a desirable policy objective to eradicate them (Gaál et al., 2010; Gaál et al., 2006a; Szende and Culyer, 2006; Ensor, 2004; Lewis, 2002). Policy makers in CEE countries often promote the implementation of official user fees by saying that formal payments will eradicate or “formalize” informal payments (see Chapter 1 and 3; Stepurko et al., 2010; Schneider, 2008). This was also the stated policy aim of the implementation of user fees in Hungary in 2007 (see Chapter 1, 2 and 3). However, there is no evidence in the literature, which supports this expectation. On the contrary, in CEE countries where user fees were implemented, patients still pay informally (Atanasova et al., 2011; Pavlova et al., 2011; Gaál et al., 2010).

Our study contributes to the knowledge on the acceptance of user fees, by providing insight on the relationship between willingness to pay formally and informally. The results of our study may support policy making on the implementation of user fees, and help to identify the main challenges regarding the relationship and the interference of informal payments and official charges.

6.2 Data and method

Data collection

For the analysis, we use data from a survey carried out in July 2010 as a part of an international research project. The aim of the survey was to collect data on willingness of health care consumers to pay official fees for health care services covered by the social health insurance as well as data on past utilization of and payments for services. For more information on the data collection and on the sample characteristics, see in Appendix A.

The Contingent Valuation design

The questionnaire included questions on the utilization of and informal payments for physician services and hospitalization during the last 12 months (see Tables A1 and A2 in the Appendix A) as well as questions on socio-demographic characteristics. The questionnaire also contained two contingent valuation tasks (see Appendix B for the exact wording) to elicit the willingness to pay official fees for each of the following two health care services covered by the social health insurance:

- 1) consultation and examination by a medical specialist in case of a major health problem, i.e. unfamiliar symptoms that make the patient concerned;
- 2) hospitalization for a planned surgery, i.e. 5-days spent in hospital and no life-threatening illness.

Respondents were asked to imagine that they could obtain these services with good quality and quick access if they pay an official fee to the health care facility (e.g. polyclinic, clinic or hospital). A visualization card was presented to respondents to describe the definition of good quality and quick access (i.e. modern medical equipment, renovated health care facility, polite staff with good reputation and skills, maximum 30 minutes travel time to the health care facility, maximum 10 minutes waiting time in front of the physician office, maximum 1 month waiting time for a planned surgery). Also, the card contained three payment intervals for each of the two services.

After the interviewer explained the information on the visualization card, respondents were asked whether they would be willing to pay an official fee to the health care provider in order to obtain these services with good quality and quick access as described on the card. Respondents, who stated that they were willing to pay, were asked to define the amount which they are willing and able to pay based on the payment intervals indicated on the visualization card. Those respondents, who could not indicate an exact amount could choose an interval. The centre of the interval was used in the analysis. Respondent who answered that they were not willing to pay for a given service, were asked about the reason of unwillingness to pay, giving them the following options: object to pay, not able to pay or both.

The scenario was developed based on the experiences of focus group discussions prior to the survey as well as based on a pre-test of the scenario. During the focus group discussions, participants were asked to express their expectations regarding the quality and delivery of health care services. The definition of good quality and access was developed based on the qualitative data from the focus group discussions, following the framework of Berki and Ashcraft (1980). In particular, the attributes specified the physical and human resources involved in care provision (i.e. health care facility, equipment and personnel), as well as the spatial, temporal and psychological access to services (i.e. waiting time, travelling time and staff attitude). The scenario was pre-tested on 30 respondents with different socio-demographic characteristics via face-to-face interviews. During this pre-test, debriefing was used to test whether the respondents understood the scenario. The necessary changes were implemented after the pre-test to assure the reliability of the data collection. The payment intervals, used in the main survey, were also developed based on this pre-test.

Our contingent valuation design (a combination of a referendum question, payment intervals and open-ended question) allowed us to measure the exact willingness to pay of the respondents, which cannot be achieved if only referendum questions and payment intervals are used. At the same time, it also provided the respondents with price tags, which helps to assure the reliability of the responses, thus, avoiding the main weakness of the open-ended questions. The combination of different types of contingent valuation questions is expected to improve the predictive validity of the willingness-to-pay data (Whynes et al., 2005; Ryan et al., 2004; Donaldson et al., 1997). However, we acknowledge that the payment card utilized in this study creates

a threat of anchoring based on the fact that respondents see a number of prices (e.g. Lucas et al., 2007).

We emphasize that the scenario provided no information about the informal payments in the given situation (i.e. respondents were not told that informal payments would disappear with the introduction of user fees). Given that some informal payments are initiated by patients, we could not make assumptions on their behavior when describing the scenario. But in the formulation of the scenarios and during the survey, we ensured respondents that they could obtain the services with good quality and quick access as defined on the card if they paid official charges. This was done as the pre-test showed that an alternative scenario that suggested payments to the state or insurer to facilitate service improvements, is often rejected by the respondents because of distrust. Despite our attempts to assure reliability of the data collection, given the nature of the stated preference methods, some hypothetical bias cannot be avoided. Thus, the results should be interpreted with the acknowledgment of the hypothetical nature of the willingness-to-pay data.

Regression analysis

Given the construction of the contingent valuation task, we expect that respondents use a two-step decision strategy about willingness to pay. First, they decide whether they are willing to pay, and conditional on this, they decide on the exact amount.

Therefore, in the first step of the analysis, we explore whether respondents are willing to pay official fees, as well as the relation of this decision with their past actual informal payments. We assume that the willingness to pay ($Y_{wtp,i} = 1$ if willing to pay, 0 otherwise) depends on some observable factors (X_i) such as socio-demographic characteristics, health care utilization, and some unobservable factors. The occurrence of past informal payments ($Y_{inf,i} = 1$ if paid informally, 0 otherwise) also depends on the same observable factors (X_i) as well as some unobservable factors.

To reveal the association between willingness to pay and observable factors, controlling for the occurrence of informal payments, we compute the partial effects of the observable factors (X_i) on the conditional probability of willingness to pay: $\Pr(Y_{wtp,i}=1|Y_{inf,i}=1, X_i)$ and $\Pr(Y_{wtp,i}=1|Y_{inf,i}=0, X_i)$.

We do not attempt to identify a causal relationship between the two decisions (past informal payments and willingness to pay). However, we assume that some of the unobservable factors (e.g. the general attitude towards payments for health care services) affect both the decision to pay informally and the willingness to pay official fees. Thus, past informal payments of the consumers provide information about the willingness to pay through these unobservable factors.

We apply a bivariate probit model, where the equations for willingness to pay and past informal payments are jointly estimated allowing correlation between the

unobservable factors, i.e. the covariance between the two error terms is not equal to zero (see Greene, 2007 p. 823). In the bivariate probit model, we assume that the two error terms are jointly normally distributed, with correlation (ρ) between the unobservable factors.

In the second step of the analysis, linear regression analysis is carried out to examine the effect of socio-demographic characteristics and past utilization on the amount of the informal payments for those respondents who indicate they are willing to pay (including the logarithm of the payment on the left side of the equation). We include a dummy variable as a proxy to indicate whether the respondent paid informally in the past, to be able to examine differences between respondents who paid informally for the utilization of services and those who did not. We also build models to examine the association between the logarithm of the exact yearly amount of past informal payments and the logarithm of the willingness to pay amount controlling for socio-demographic characteristics and health care use.

We include socio-demographic characteristics in the equations as independent variables (such as age, gender, education, place of residence, perceived health status, number of household members and the logarithm of the net monthly household income) as well as information on past utilization of health care services (i.e. how many times the respondent visited a physician or was hospitalized during the last 12 months, and whether the respondent had to forgo visits or hospital admission because he/she could not afford to pay either for the service or for the transportation/travel).

We estimate models separately for specialist consultation/examinations and for a planned surgery to explore the willingness to pay for each of these services. Also, we examine users (those who visited physician/were hospitalized during the last 12 months) and non-users separately. Previous findings in the literature on contingent valuation indicate differences in the willingness to pay between actual users and non-users/potential users, i.e. lower willingness to pay estimates for those who have no prior experience (Hanley et al., 2003; Ryan, 1996).

We acknowledge that there are some limitations of the analysis. First, in the linear regression model, the dummy variable that indicates whether the respondent paid informally is endogenous due to the unobserved factors mentioned above. We tested for the robustness of our results by omitting this dummy from the regression. Since the parameters seemed to be robust to the inclusion of this variable, we present here the model where the payment variable is included as a proxy. The small sample size also does not allow us to estimate models very precisely in some cases. Finally, we have no information on the type of physician and hospital services, which were utilized during the past 12 months. Given that informal payments are more frequent for some services (e.g. surgery or delivery) than for others, the type of service used might also influence the probability of paying informally. This may lead to a selection bias.

Other potential caveats include recall biases related to both past informal payments and service utilization, as the 12-month recall period used in the study is rather long (de Bruin et al., 1996). We use a 12-month period to assure a sufficient number of respondents who have been hospitalized in the sample. We use the same recall period for both physician visits and hospitalizations to assure comparability between services. Additionally, the sensitivity of the questions regarding informal payments can also result in a low response rate or biased answers, which might lead to selection bias (Saris and Gallhofer, 2007). However, in our study, the response rate is relatively high (76 percent), and the number of missing values concerning the questions on informal payments is less than 1 percent.

Finally, in the analysis, we do not examine the reasons for unwillingness to pay, which can also hold some policy relevance, and would be an interesting topic for future research.

6.3 Results

Descriptive statistics on the socio-demographic features of the respondents as well as past utilization and informal payments are presented in Tables A1 and A2 in Appendix A. About 80 percent of the respondents visited a physician in the last 12 month, on average 6.6 times, and 21.0 percent of them paid informally, on average 59.2 euro¹⁵ (sd=77.3) per year. As much as 21.1 percent of the respondents were hospitalized during the last 12 month. Almost half of them (44.3 percent) paid informally, on average 130.8 euro (sd=163.0) per year.

Regarding the contingent valuation results on willingness to pay (see Table 6.1), 688 (66.3 percent) of the respondents indicated that they are willing to pay for a consultation and examination by a medical specialist in order to obtain services with good quality and access as described on the visualization card, 45 (6.5 percent) of them did not provide any indication of the amount (neither a payment interval nor an exact amount), and 155 (22.5 percent) failed to indicate the exact amount but only indicated the payment interval. We used the centre of the interval for these respondents. The rest of the respondents, 488 (70.9 percent) indicated an exact amount within the chosen interval. For those who indicated either an exact amount or interval, the average willingness to pay is 13.9 euro (sd=21.07) per examination. As many as 346 respondents indicated the reason of their unwillingness to pay (3 missing): 116 were not able to pay, 131 objected to pay and 99 both objected and were not able to pay.

Altogether, 581 respondent (56.0 percent) indicated that they are willing to pay for a planned surgery, 37 (6.4 percent) of them did not indicate any interval or fee

¹⁵ The exchange rate used in the survey was 285 HUF=1 EUR, which was due at the time of the data collection.

amount, 138 (23.8 percent) respondents indicated only a payment interval, and 406 (69.9 percent) indicated the exact amount within the chosen interval. For those who indicated the exact amount or the interval, the average payment is 101.0 euro (sd=65) per hospital admission. Altogether, 446 respondents indicated the reason for a negative answer (10 missing), 164 of them were not able to pay, 151 objected to pay and 131 of them both objected and were not able to pay.

Table 6.1 Results of the contingent valuation task - distribution of the willingness to pay amounts

Specialist examination	N	Planned surgery	N
Total sample	1037	Total sample	1037
Willing to pay	688	Willing to pay	581
Indicated an exact amount	488	Indicated an exact amount	406
0-5 euro	92	0-50 euro	78
5-10 euro	148	>50, ≤100 euro	190
10- 15 euro	89	>100, ≤150 euro	74
15-20 euro	90	>150, ≤200 euro	48
20 – 30 euro	7	More then 200 euro	
30-40 euro	37	-	-
More then 40 euro	25	-	-
Indicted only an interval	155	Indicted only an interval	138
Less than 5 euro	38	Less than 100 euro	66
Between 5-10 euro	75	Between 100-200 euro	63
More than 10 euro	42	More than 200 euro	9
Missing	45	Missing	37
Not willing to pay	346	Not willing to pay	446
Not able to pay	116	Not able to pay	164
Object to pay	131	Object to pay	151
Both object and unable to pay	99	Both object and unable to pay	131
Missing	3	Missing	10

The regression results are presented in Table 6.2 and Table 6.3 separately for a specialist examination and a hospitalization for a planned surgery. Among health care users, we find a significant positive correlation (ρ) between the unobservable factors influencing the willingness to pay user fees, and the past informal payments, 0.43 and 0.68 for physician visit and hospitalization respectively.

We find that the willingness to pay formal fees is different across health care users who paid informally during the past 12 months, and those who did not. The conditional

probability of the willingness to pay for a specialist visit is 88.8 percent for those who paid informally and 65.2 percent for those who did not pay. Even higher differences are found in the case of planned surgery (82.8 vs. 36.9 percent) respectively. We find that the direction of the effect of the explanatory variables on the conditional probability of willingness to pay is the same in both groups, i.e. for those who paid and those who did not pay informally.

In the case of a specialist examination, respondents with a higher household income are more likely to be willing to pay formally and at the same time they are associated with a higher probability to pay informally as well. In the case of elderly users and users from the capital, we observe a higher probability to pay informally compared to other socio-demographic groups. However they have a lower probability to be willing to pay formally. In particular, age and living in the capital have a significant and positive effect on the probability of paying informally for physician visits during the last 12 month. They have a significant and negative impact on the conditional probability of willingness to pay formal fees. The marginal effect of a one year change in the age of the respondent at the mean is -0.1 percentage points for those who paid informally and -0.2 percentage points for those who did not; for living in the capital the marginal effects are 7.6 and 10.9 percentage points respectively.

We find that some population groups are less willing to pay formally. However, they do not significantly differ from other population groups regarding past informal payments. For those who forgo visits, the probability of willingness to pay formal fees is 4.5 and 9.2 percentage points lower (respectively for those who paid and did not paid informally). Disability pension is also associated with lower probability to be willing to pay (the marginal effects are 8.1 and 12.9 percentage points respectively). At the same time, these factors do not have a significant influence on the probability of paying informally.

Regarding the willingness to pay for a planned surgery, we find some differences in the marginal effects of the explanatory variables on the conditional willingness to pay compared to physician visits. Forgone hospital admissions and living in the village are associated with a lower probability of willingness to pay (the marginal effect are -46.3 and -34.0 percentage points for forgone admission, and -13.9 and -16.8 percentage points for living in the village respectively for those who paid informally and for those who did not). However, these variables are not associated with the occurrence of past informal payments.

Table 6.2 Contingent valuation for specialist examinations – results of the regression analysis

SPECIALIST	Users				
Variables Model	$Y_{inf,i}$ biprobit	$Y_{wtp,i}$ biprobit	$Pr(Y_{wtp,i}=1 Y_{inf,i}=1)$ marg.effect%	$Pr(Y_{wtp,i}=1 Y_{inf,i}=0)$ marg.effect%	Ln(amount) linear
Paid informally	-	-	-	-	0.167** (2.019)
Number of visits	0.058*** (6.259)	0.011 (1.201)	-0.19 (-1.00)	0.07 (0.21)	-0.003 (-0.475)
Has forgone physician visit	-0.177 (-1.393)	-0.265** (-2.444)	-4.48* (-1.70)	-9.24** (-2.21)	0.035 (0.393)
Age	0.006* (1.888)	-0.005* (-1.683)	-0.14** (-2.38)	-0.22** (-2.04)	-0.001 (-0.263)
Woman	0.146 (1.333)	0.092 (0.936)	0.85 (0.41)	2.62 (0.71)	-0.120* (-1.762)
Capital	0.321** (2.177)	-0.177 (-1.304)	-6.71* (-1.96)	-9.23* (-1.73)	-0.624*** (-6.367)
Village	0.157 (1.269)	0.131 (1.163)	1.56 (0.69)	4.01 (0.96)	-0.056 (-0.740)
Secondary education	0.163 (1.300)	0.045 (0.398)	-0.25 (-0.11)	0.69 (0.16)	0.094 (1.138)
Tertiary education	0.169 (0.992)	0.189 (1.112)	2.53 (0.84)	6.00 (1.00)	0.035 (0.358)
Ln (income)	0.372*** (3.164)	0.433*** (4.478)	6.29*** (2.62)	14.3*** (3.97)	0.212** (2.578)
Household members	-0.101** (-2.112)	-0.018 (-0.462)	0.35 (0.43)	-0.07 (-0.05)	-0.033 (-1.294)
Bad health status	0.027 (0.164)	0.043 (0.300)	0.69 (0.25)	1.49 (0.28)	-0.159 (-1.221)
Disability pension	0.053 (0.283)	-0.314* (-1.935)	-8.13* (-1.74)	-12.9** (-1.98)	-0.084 (-0.740)
Constant	-3.349*** (-5.766)	-1.441*** (-3.017)	88.8 -	65.2 -	7.084*** (17.89)
Athrho	0.455*** (5.556)	-	-	-	-
Observations	785	-	-	-	506
LL	-812.4	-	-	-	-
Rho	0.426	-	-	-	-
p	0.000	-	-	-	-
Chi2/F	112.5	-	-	-	5.30
p	0.000	-	-	-	0.000
R2	-	-	-	-	0.110

Note: Robust z and t statistics in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

We find that a higher willingness to pay is associated with tertiary education, larger households as well as with living in the capital. The findings for the capital are

just the opposite from what we find for physician visits, i.e. a significantly higher probability that the respondent is willing to pay (with marginal effects of 12.4 and 19.7 percentage points), while a negative effect (however not significant) on the probability of having made informal payments during the past 12 month. Higher household income is associated with a higher probability of paying informally, but not with a higher probability of willing to pay formal fees.

Among those who are willing and able to pay for specialist visits, women as well as respondents from the capital are willing and able to pay significantly lower amounts (11.3 and 46.4 percent less, respectively). However, a higher household income is associated with higher amounts. Among those, who are willing and able to pay for a planned surgery, respondents from the village and with bad/very bad perceived health status are willing to pay significantly lower amounts (44.7 and 37.1 percent less respectively).¹⁶

Those who paid informally for physician visits during the last 12 month, are willing to pay higher amounts for specialist examination (18.2 percent more), while we find no difference regarding the amount of the payment among respondents are willing and able to pay for a planned surgery. Among those who paid informally, we find no significant relation between the exact amount of the annual informal payments and the willingness to pay amounts; neither in the case of physician services nor in the case of hospitalization (results are not shown in the Table 6.2). However, these models include a rather low number of observations, thus they have to be interpreted with reservations.

The results of the probit model for planned surgery¹⁷ suggest that respondents who were hospitalized before (but not in the past 12 months), are significantly more likely to be willing to pay for hospitalization (with a marginal effect of 19.0 percentage points). Higher household income is associated with a higher probability that the respondent is willing to pay officially. Among recent users however, the probability to be willing to pay officially is lower (with the marginal effect of 9.8 percent points) for respondents living in the capital compared to respondents from other towns. Respondents living in the capital or in a village are willing to pay significantly lower amounts for a planned surgery (18.9 and 15.8 percent less) compared to respondents living in other towns. A lower income is also associated with a lower willingness to pay.

16 Significant positive coefficient for those who forgone hospital admission due to inability to pay (3 respondents with the average amount of 50 167 HUF).

17 Among those who had not visited physician during the last 12 months, the probit model is not significant at 10% significance level, which might be explained by the low sample size and possible heterogeneity among these respondents. However, the coefficients suggest that respondents living in the capital are also less likely to be willing to pay for specialist visits, similarly to users.

Table 6.3 Contingent valuation for a planned surgery – results of the regression analysis

PLANNED SURGERY	Users					Non-users		
Variables Model	Y _{infj} biprobit	Y _{wpi} biprobit	Pr(Y _{wpi} =1 Y _{infj} =1) marg.eff%	Pr(Y _{wpi} =1 Y _{infj} =0) marg.eff%	Ln(amount) linear	Y _{wpi} probit	Pr(Y _{wpi} =1) marg.eff%	Ln(amount) linear
Paid informally	-	-	-	-	0.208	-	-	-
	-	-	-	-	(1.646)	-	-	-
Number of hospitalization	0.046	0.057	1.05	1.65	0.046	0.48***	19.0***	0.141*
/Ever been hospitalized.	(1.144)	(1.296)	(0.76)	(0.85)	(1.504)	(4.156)	(4.21)	(1.650)
Has forgone hospitalization	-0.096	-1.123**	-46.3***	-34.0***	0.657***	-0.760	-29.1*	0.023
	(-0.241)	(-2.552)	(-3.01)	(-5.37)	(4.570)	(-1.612)	(-1.82)	(0.103)
Age	0.003	0.007	0.18	0.26	0.001	-0.003	-0.13	-0.001
	(0.687)	(1.404)	(1.13)	(1.23)	(0.279)	(-1.106)	(-1.11)	(-0.483)
Woman	0.202	0.049	-01.69	-1.70	-0.105	0.134	5.26	-0.004
	(1.117)	(0.263)	(-0.32)	(-0.22)	(-0.824)	(1.408)	(1.41)	(-0.053)
Capital	-0.398	0.271	12.4**	19.7*	-0.153	-0.248*	-9.82*	-0.210**
	(-1.557)	(1.024)	(2.45)	(1.79)	(-0.830)	(-1.893)	(-1.89)	(-2.232)
Village	0.095	-0.349*	-13.9*	-16.8**	-0.593***	-0.013	-0.50	-0.172**
	(0.455)	(-1.675)	(-1.92)	(-2.18)	(-4.296)	(-0.117)	(-0.12)	(-2.370)
Secondary education	0.362*	-0.057	-7.86	-9.73	-0.076	0.160	6.24	-0.033
	(1.665)	(-0.263)	(-1.18)	(-1.15)	(-0.593)	(1.504)	(1.51)	(-0.463)
Tertiary education	0.006	0.632	14.3**	29.0*	0.046	0.219	8.43	0.098
	(0.017)	(1.627)	(2.55)	(1.84)	(0.222)	(1.410)	(1.45)	(0.977)
Ln (income)	0.502***	0.477**	7.06	11.7	0.267	0.38***	15.0***	0.104*
	(2.862)	(2.107)	(1.07)	(1.29)	(1.653)	(3.754)	(3.75)	(1.687)
Household members	-0.175**	0.028	3.71*	4.68	0.018	-0.027	-1.04	0.006
	(-2.519)	(0.387)	(1.71)	(1.52)	(0.343)	(-0.622)	(-0.62)	(0.260)
Bad health status	0.085	0.156	3.46	5.44	-0.463**	0.157	6.09	0.053
	(0.367)	(0.673)	(0.57)	(0.58)	(-2.489)	(0.901)	(0.92)	(0.372)
Disability pension	-0.275	0.155	8.26	0.12	0.277	-0.222	-8.82	-0.185
	(-0.854)	(0.498)	(1.39)	(1.04)	(1.598)	(-1.183)	(-1.18)	(-1.351)
Constant	-2.59***	-2.701**	82.8	36.9	8.776***	-1.98***	56.9	9.521***
	(-3.062)	(-2.380)	-	-	(9.635)	(-3.887)	-	(29.89)
Athrho	0.824***	-	-	-	-	-	-	-
	(5.897)	-	-	-	-	-	-	-
Observations	214	-	-	-	109	768	-	411
LL	-249.4	-	-	-	-	-	-	-
Rho	0.677	-	-	-	-	-	-	-
P	0.000	-	-	-	-	-	-	-
Chi²/F	49.18	-	-	-	7.133	51.85	-	1.996
P	0.002	-	-	-	0.000	0.000	-	0.023
(Pseudo) R²	-	-	-	-	0.285	0.058	-	0.052

Note: Robust z and t statistics in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

6.4 Discussion

Willingness to pay for quality

As indicated at the outset of this chapter, based on previous qualitative data (see Chapter 4; Baji and Gulácsi, 2010), we expect that health care consumers in Hungary are not against official fees for health care services if these services are provided with good quality and access. In this study, we confirm this expectation as we find that the majority of the respondents are willing to pay for health care services provided with certain quality and access attributes (as described in the contingent valuation task). Thus, Hungarian consumers are not against paying official fees. However, they expect value for their money. They would be willing to pay for high quality services, which are far from given at the moment in Hungary (Eris, 2012). Consequently, the improvement of the quality of services seems to be essential for the public acceptance of these fees. The Hungarian experience with user fees introduced in 2007 also shows that without appreciable improvements in the service quality, the fees remain unpopular among the public (see Chapter 4). In this field however a lot should be done in Hungary. In particular, currently the number of available health care quality indicators is limited, the quality of the provided services is hardly monitored and no quality requirements are included in the regulations (Eris, 2012).

As expected based on previous studies (Danyliv et al., 2012; Tomini et al., 2011; Tomini and Maarse, 2011; Mincer and Polachek, 1974; Becker, 1967), a higher willingness to pay is associated with a higher ability to pay (indicated by the household income) and vice versa. In the case of vulnerable social-economic groups (e.g. elderly people, people on disability pension and those who forgone visits or hospital admission), we observe a lower willingness to pay even after controlling for income and service utilization. These population groups, who are not willing or able to pay, may oppose the implementation of user fees. As previous experiences suggest, public acceptance is crucial for the successful implementation of user fees (see Chapter 4). Therefore, these groups require special attention from a policy point of view. The lack of adequate exemption mechanisms for those who are unable to pay user fees, might create a barrier to access which might result in higher morbidity rates, emergency care admissions and mortality (Austvoll-Dahlgren et al., 2008; Atella et al., 2006). Furthermore, those, who are able but not willing to pay officially, need special attention in the communication and public discussion of user fees policies. The confidence of this population group in the necessity of formal payments is crucial for the successful implementation of formal charges.

This study has addressed the consumer side and reveals a demand for good quality care. However, the derived willingness to pay only helps to estimate the social value of the services. The results should not be directly applied to set prices (e.g. Ryan and Watson, 2009). The issue, whether the willingness to pay derived in our study would be “theoretically” sufficient to finance the promised improvement of the service quality, requires further

research on the supply side. Therefore, further study should address the current quality of health care services, as at the moment the quality of the services is hardly measured (Eris, 2012), to be able to identify investment priorities and their financial requirements.

The link between willingness to pay official fees and past informal payments

In this chapter, we have also focused on the relationship between willingness to pay formal fees and past informal payments. Our results have some policy implications on this issue as well. We find that controlling for income, those who are already paying informally are significantly more willing to pay formal fees for health care services provided with certain quality and access attributes. In other terms, those who are willing (irrespective of their income situation), are already paying for health care services, however through informal payment channels.

However, this finding does not necessarily indicate that formal and informal payments are substitutes for health care consumers. Specifically, in Hungary, informal payments are directly pocketed by physicians (mostly the head/manager) and contribute to their income. This way, informal payments can affect the choice of physician or attitude of the personnel, and in some cases even the access to services. However, these payments are not likely to be reinvested in the health care facilities (to improve the equipment or maintenance, which are also presented in our visualization card). According to previous studies, the attributes connected to the health care personnel are the most valued by health care consumers (see Chapter 7; Pavlova et al., 2003). This suggests that consumers will not give up the informal payments as long as they cannot achieve these benefits by paying formally. Thus, it is probable that the problem of informal payments will remain even after the implementation of user fees, especially if these payments serve different objectives.

The results also suggest that some population groups (e.g. elderly and respondents from the capital) might prefer to pay informally (as we find that they are more likely to pay informally, but less likely to be willing to pay formal fees). Based on the explanation above, they may think that informal payments will remain important after the implementation of the fees. Thus, they are against formal payments as they do not want to pay twice. In some CEE countries where formal charges were implemented, we find evidence of the co-existence of formal and informal payments (Atanasova et al., 2011; Pavlova et al., 2011; Gaál et al., 2010).

When we interpret the results for the capital, we have to take into account that consumers from Budapest are already experiencing better quality and access of health care services. Several studies have indicated that in Budapest, consumers have better access to health care services than in other parts of the country (Vitray et al., 2011; Belicza, 2006). This might explain the lower willingness to pay in the capital. It is interesting that service users from the capital are less willing to pay for physician services where they are more often paying informally. At the same time, they are more

willing to pay for a planned surgery, where informal payments are less widespread compared to other towns or villages.

These results imply that policies have to take into account that consumers do not mind to choose the informal payment channels. Thus, health care consumers, who are able and willing to pay, might continue to pay informally if they can achieve further benefits. The implementation of user fees is hardly a sufficient policy tool on its own to diminish informal payments, although this expectation is often promoted by policy makers. This finding is in accordance with previous experiences with user fees in Hungary, which show that after the implementation of user fees informal payments decreased only among vulnerable social groups, who are less able to pay for services (see Chapter 3).

Finally, those who are less likely to pay informally are less willing to pay formal fees as well. Especially among those who were hospitalized and did not pay informally the willingness to pay formal fees is rather low, 37 percent). This might suggest that these consumers are against all kinds of payments (formal and informal) and consider that health care services should be provided free of charge, without any co-payments. This population group might also provide strong opposition to the implementation of user fees and they need special attention in the communication on the objectives of the fees.

6.5 Conclusion and policy implications

In this study, contingent valuation method has been applied to examine the willingness of the Hungarian population to pay official charges for health care services provided with certain quality and access attributes, as well as the relationship between the willingness to pay formal fees and past informal payments.

We find that overall, the majority of the Hungarian population is willing to pay officially for health care services. However, they expect value for their money. They are willing to pay for high quality services, which are far from given at the moment. Thus, the introduction of formal payments in future, should assure adequate quality and access (measurable, and visible for the patient) otherwise user fees might not be accepted by the population similarly to the introduction of user fees in 2007. To establish an adequate system of formal patient payment in Hungary, the regulation, measurement and monitoring of the quality of the services covered by the social health insurance are essential. At the moment, the lack of clear regulations on service quality guaranteed by social health insurance, creates undesirable incentives for charging/paying informal payments which leads to adverse incentives for providers and inequalities in access for consumers (Szende and Culyer, 2006). Furthermore, our findings provide a hint that formal payments are not able to substitute for informal payments, in spite of the expectations of policy makers. Thus, formal fees might induce a double financial burden for patients, making the implementation of user fees less acceptable to the public.

Chapter 7

Preferences of Hungarian consumers for quality, access and price attributes of health care services – result of a discrete choice experiment

This chapter draws upon:

Baji P, Pavlova M, Gulácsi L, Groot W. (2012): Preferences of Hungarian consumers for quality, access and price attributes of health care services – result of a discrete choice experiment. *Society and Economy*, 34 (2):293–311.

Abstract

Objective: The aim of the study is to estimate the effect of the improvement of health care service attributes (quality, access, and price) on patients' choice of health care providers, as well as the differences among the socio-demographic groups.

Method: In 2010, a survey was carried out in Hungary among 1037 respondents to study consumer preferences and willingness to pay for health care services. The method of discrete choice experiment is used to elicit preferences of health care consumers. We also estimate the marginal willingness to pay for the improvement in attribute levels by calculating marginal rates of substitution.

Results: The results show that respondents from a village or the capital, with low education and bad health status are more driven by the changes in the price attribute when choosing between health care providers. Respondents value the skills and reputation of the physician, and the attitude of the personnel the most, followed by modern equipment and maintenance of the office/hospital. Access attributes (travelling and waiting time) are less important factors in their choice.

Conclusion: In this study, we have provided evidence that health care consumers in Hungary are ready to accept higher prices for health care services provided with better quality and access. Our finding also indicates that priority should be given to investments in human resources.

7.1 Introduction

Previous qualitative studies suggest that consumers are not satisfied with the quality of health care services provided by the social health insurance in Hungary (see Chapter 4; Baji and Gulácsi, 2010). They mostly complain about long queues, long waiting times, lack of personal attention, poor maintenance of the health care facilities and shortage of equipment. The low quality of health care services provided by the social health insurance is often associated with the lack of financial and human resources in the health care facilities. According to previous studies (see Chapter 4 and 6), health care consumers are not against contributing to the cost of the health care services by paying official fees, if these services are provided with good quality and access.

The objective of this study is to examine the preferences of health care consumers for quality, access and price attributes of health care services. In particular, we use the method of discrete-choice experiment (DCE) to study the relative importance of various service attributes to consumers, as well as the value that consumers attach to the improvements in service quality and assess. We also estimate how relative attribute importance and improvement valuation differ among socio-demographic groups. For the analysis we use data from a national survey carried out in 2010 in Hungary among a country representative sample.

The DCE method¹⁸ is broadly applied in the field of economic evaluation of specific health care products, procedures or programs (i.e. health technology assessment). The application of the method for the assessment of health policies is however limited. In this chapter, we demonstrate how the method can be used to inform policy makers on consumers' preferences for the improvements in health care services and thus, on consumers' willingness to accept official fees for health care.

Our study may support the establishment of sustainable patient payment policies acceptable for the public. The results on consumer preferences can also help to indicate the investment priorities in the health care system and may also be useful for

18 DCE belongs to the stated preference methods, which are used to elicit consumer preferences when the consumer behavior is not observable, for example, when the market for a given good/service does not exist or is still being developed. In this case, preferences can be derived from surveys where consumers are presented with hypothetical options and are asked to state their preferences for these options. Stated preference methods are frequently applied within the framework of cost-benefit analysis, mainly in the field of health, environmental and transport economics, to advise on the social desirability of providing various commodities and services using public resources (see Vroomen and Zweifel, 2011; Lancsar and Louvier, 2008; Hanley et al., 2003; Ryan and Gerard, 2003; Telser and Zweifel, 2002; Ryan et al., 2001). In DCE, respondents are faced with hypothetical choice sets of goods and services characterized by certain attributes. Each profile is a bundle of selected attributes with specific levels. The profiles differ from each other in the levels of their attributes. The respondents are asked to choose the profile that they prefer most. It is assumed that an individual derives unique utility from each attribute level. It is also assumed that respondents evaluate the utility that they expect to derive from a product/service by combining the utility that they expect from each attribute characterizing the given product/service. Consequently, respondents choose the profile that they associate with the highest level of utility. Thus, the respondents' preferences for a given profile contain information about the overall utility that respondents expect to derive from that profile.

the actors in private health care sector (e.g. health insurance companies and health care providers to plan new products in the private health care market).

7.2 Method

Data collection

We use data from a national survey, which was carried out as a part of an international research project. The objective of the survey was to provide quantitative data on past payments for health care services, data on preferences and willingness of the population to pay for health care services. More details on data collection can be found in Appendix A.

The DCE design

In this chapter, we use the data from the two DCE experiments included in the questionnaire: the DCE on out-patient services (visit to a specialist) and the DCE on in-patient services (planned surgery). In each of the two DCE, the service (specialist visit or planned surgery) is presented to the respondents in the form of alternative profiles that contain combinations of attributes of health care services (see Table 7.1). The selection of attributes and attribute levels are based on focus group discussions, where the participants describe their expectations about good quality health care services. Attributes of the services selected are referring to the quality of physical and human resources needed to provide care (i.e. health care facility, equipments, and personnel) as well as to the temporal, spatial and physiological access to services (i.e. waiting time, travelling time, staff attitude). These attributes correspond to the framework of Berki and Ashcraft (1980) on quality and access of health care services. (The same definition is used in the contingent valuation study in Chapter 6.) We keep the number of attributes and their levels at a minimum to assure the feasibility of data collection.

Respondents are asked to choose between the two options (basic profile and alternative profile) to indicate which specialist they would visit in the case of a major health problem with unfamiliar symptoms, and alternatively, which hospital they would choose in the case of a planned surgery with not life-threatening conditions which requires 5 days stay in hospital (see Table 7.2). As explained in the previous section, it is expected that each individual derives unique utility from each attribute level and chooses the profile that maximizes his/her utility. For more information about the analysis of our DCE data, see Box 7.1.

Table 7.1 *Discrete Choice Experiment – attributes and attribute levels*

Specialist services			
Attributes		Attribute levels	
ATR1	Medical equipment	0 = Outdated	1 = Modern
ATR2	Reputation and skills of the physician	0 = Unknown	1 = Known to be good
ATR3	Maintenance of the office	0 = Outdated	1 = Renovated
ATR4	Attitude of the staff	0 = Impolite	1 = Polite
ATR5	Travel time to the office	60 minutes	15 minutes
ATR6	Waiting in front of the office	45 minutes	10 minutes
ATR7	Patient visit fee	10 euro (2850 HUF)	5 euro (1425 HUF),
Hospitalization			
Attributes		Attribute levels	
ATR1	Medical equipment	0 = Outdated	1 = Modern
ATR2	Reputation and skills of the surgeon	0 = Unknown	1 = Known to be good
ATR3	Maintenance of the interior	0 = Outdated	1 = Renovated
ATR4	Attitude of the staff	0 = Impolite	1 = Polite
ATR5	Travel time to the hospital	3 hours	1 hours
ATR6	Waiting time for the operation	4 months	1 month
ATR7	Patient hospitalization fee	100 euro (28500 HUF),	200 euro (57000 HUF)

Eight choice-sets for specialist services and eight choice-sets for hospital services are defined. Each choice-set contains one basic profile (that remained constant throughout all eight choice sets) and one alternative profile (see an example in Table 7.2). The alternative profiles are selected from all possible profiles ($2^7 = 128$), by using an orthogonal main-effect fractional factorial design (Addelman, 1962). The basis profile is chosen to minimize the overlap between profiles in a choice-set and to represent a potentially realistic situation: a low-price level, as well as one attractive and one unattractive level for each of the following aspects: health care personnel (attitude and skills), conditions (maintenance and equipment) and access (travelling and waiting).

Table 7.2 Discrete Choice Experiment – example of a choice set

CARD: Choice of a physician – major health problems		
	Physician A	Physician B
Medical equipment	Modern	Outdated
Reputation and skills of the physician	Unknown	Known to be good
Maintenance of the office	Renovated	Renovated
Attitude of the staff	Impolite	Impolite
Travel time to the office	60 min	15 min
Waiting in front of the office	10 min	45 min
Patient visit fee	5.- euro	5.- euro

Box 7.1 The theoretical background of the discrete choice experiment method**The theoretical background of the DCE method**

Consumers choose between services based on their utility level. The utility driven by the service is the following:

$$(1) \quad U^{ij}(X^i, P^i, S^j) = c + a_1x_1^i + a_2x_2^i + \dots + a_kx_k^i + a_pp^i + b_1s_1^j + b_2s_2^j + \dots b_ns_n^j$$

Where

- U^{ij} utility that respondent j associates with profile i
- X^i non-price attributes in profile i
- P^i price attribute in profile i
- S^j variables respondent j
- c constant
- a, b model coefficients
- k number of non-price attributes
- n number of respondent variables

It is expected that each individual derives unique utility from each attribute level and chooses the profile that maximizes his/her utility. We suppose that the consumer choose the alternative profile in contrast to the basic profile, if the utility derived from the alternative profile is higher (or equal) to the utility derived from the basic profile.

$$(2) \quad U^{Al}(X^{Al}, P^{Al}, S^j) - U^{Bl}(X^{Bl}, P^{Bl}, S^j) =$$

$$\Delta U^{Al-Ba} = \alpha_1 \Delta x_1^{Al-Ba} + \alpha_2 \Delta x_2^{Al-Ba} + \dots + \alpha_k \Delta x_k^{Al-Ba} + \alpha_p \Delta p^{Al-Ba} + v + \mu$$

where v, μ random errors within and between respondents

$$\text{Choice} = \begin{cases} 0 = \text{basis profile} & \text{if } \Delta U^{Al-Ba} < 0 \\ 1 = \text{alternative profile} & \text{if } \Delta U^{Al-Ba} \geq 0 \end{cases}$$

After the estimation of model parameters $(\alpha_1 \dots \alpha_k, \alpha_p)$ from (2) we can calculate the marginal rate of substitution between non-price (x) and price-related (p) health care attributes, which can be interpreted as the amount of money that respondents are willing to pay for one unit change in the attribute level to stay on the same utility level.

$$(3) \quad \left. \frac{\partial \Delta p}{\partial \Delta x_k} \right|_{\Delta U=0} = - \frac{\partial \Delta U / \partial \Delta x_k}{\partial \Delta U / \partial \Delta p} = - \frac{\alpha_k}{\alpha_p}$$

Analysis

For the analysis of the DCE data, we use binary probit regression with random effects (software package LIMDEP 7.0). The choice of the profile (selection or rejection of the basic profile) is taken as the dependent variable. Initially, we include all attribute differences and all interactions (see the model in Box 7.1) as independent variables (see independent variables in Tables A1 and A2 in Appendix A). Then, we reduce the model using a backward stepwise procedure where statistically insignificant independent variables are systematically removed from the model. This way, we obtain a reduced model that contains only statistically significant independent variables (where $p \leq 0.10$).

We also calculate the marginal rates of substitution (MRS) between non-price and price attributes, and we use the MRS as an indicator of respondents' marginal willingness to pay and relative importance that respondents attach to a change in a given service attribute (e.g. Vroomen and Zweifel, 2011; Telser and Zweifel, 2002). The MRS is seen as an indicator of the marginal willingness to pay for a change in the non-price attribute, i.e. the increase in official fees that compensates for the improvement of a non-price attribute assuming a constant utility level. We should highlight that the marginal willingness to pay derived from DCE should be used with caution and cannot be seen as actual amounts that respondents are willing to pay (e.g. Ryan and Watson, 2009). It is suggested to use rather as an ordinal perspective to set investment priorities.

7.3 Results

Socio-demographic characteristics

Descriptive statistics are presented in Tables A1 and A2 in Appendix A. The results of the DCE are presented in Table 7.3. All main effects of the attributes are significant, except for travelling time to the hospital in the case of hospital services. This means that all attributes included in the two DCE affect the choice of service irrespective of the respondents' socio-demographic characteristics. In general, better equipped and renovated physician office/hospitals, as well as skilled physicians and polite personnel are preferred. Shorter waiting time in front of the physician office and shorter waiting time for the operation as well as shorter travelling time to the physician office are also preferred. Travelling time to the hospital has a significant effect on the choice only for respondents with a household income of less than 250 euro per month.

The coefficients of the interaction terms of socio-demographic characteristics and the coefficients of the main effects of the attributes indicate the differences in preferences across the socio-demographic groups. The same sign of the coefficient of the main effect of an attribute and the interaction terms of the socio-demographic

characteristics with this attribute indicate that this attribute has a relatively greater impact on the choice of services in the given socio-demographic group compared to the base socio-demographic category. In case of opposite signs, the attribute's influence on the choice is lower in the given socio-demographic group.

The “reputation and skills of the surgeon” is a more important attribute for women and respondents with a tertiary education than for the rest of the sample (for both physician and hospital services). At the same time, skills and reputation of the surgeon is a less important factor for respondents with primary education or respondents from the capital. The “attitude of the personnel” is a more important attribute for women and respondents from villages when using specialist services compared to other socio-demographic groups. However, it is a less important attribute for respondents over 65 and with a household income higher than 1000 euro.

Preferences for “medical equipment” differ across socio-demographic groups in the case of specialist services, while they are rather similar (i.e. interaction terms are not significant) in the case of hospital services except for respondents with tertiary education. Preferences for the attribute “maintenance of the hospital interior” in case of hospital services also differ by socio-demographic groups, while we find no differences for the importance of the “maintenance of the office” in the case of specialist services.

“Travel time to the physician office” is more important for respondents from villages, and respondents living on a disability pension than for the rest of the sample. Also, we find no significant differences concerning the importance of “waiting time in front of the office” in general, except for respondents from the capital who have a stronger preference for a shorter waiting time than the rest of the sample. This is also the case for “waiting time for the operation”, which is a more important attribute for respondents from villages than for other socio-demographic groups.

Regarding the price attribute, significant negative coefficients of the interactions between price and socio-demographic characteristics show that for vulnerable social groups the choice of services is strongly affected by changes in the price attribute. Respondents from a village, with bad health status, as well as those who are living alone or disabled are more strongly affected by the price when choosing between specialist services. Similarly, for hospital services, respondents from a village, with low education, who are living alone and disabled are more strongly affected by the price. For respondents from the capital, the choice of physician is also more affected by the price changes.

We find that respondents under 30 or over 65 years are less affected by the price when choosing between services. Also, the choice of respondents with tertiary education and with a household income of more than 1000 euro per month, is less affected by price changes in the case of specialist services.

Table 7.3 *Discrete Choice Experiment – results of the probit analysis*

Variables and interactions of the variables	Specialist services		Hospital services	
	Coefficient	St.error	Coefficient	St.error
Constant	0.1031	0.0508	-0.0991	0.0507
Medical equipment (ATR1)	0.4812	0.0419	0.2796	0.0358
Reputation and skills (ATR2)	0.6373	0.0459	0.5960	0.0438
Maintenance of the office /interior (ATR3)	0.4134	0.0387	0.3628	0.0444
Attitude of the staff (ATR4)	0.5455	0.0474	0.3535	0.0469
Travel time (ATR5)	-0.0072	0.0009	-	-
Waiting (ATR6)	-0.0102	0.0012	-0.1473	0.0130
Price (ATR7)	-0.0003	0.0000	-0.0000	0.0000
Medical equipment * OLD	-0.2510	0.0711	-	-
Medical equipment * CAPITAL	0.2125	0.0726	-	-
Medical equipment * VILLAGE	0.1588	0.0819	-	-
Medical equipment * TERTIARY EDUCATION	-	-	0.2902	0.0868
Medical equipment * DISABILITY PENSION	0.1200	0.0687	-	-
Reputation and skills * FEMALE	0.1135	0.0492	0.0799	0.0459
Reputation and skills * CAPITAL	-	-	-0.4424	0.0750
Reputation and skills * VILLAGE	0.1609	0.0671	-	-
Reputation and skills * PRIMARY EDUCATION	-	-	-0.1815	0.0644
Reputation and skills * TERTIARY EDUCATION	0.2191	0.0748	0.4776	0.0732
Maintenance of the office /interior * PRIMARY EDUCATION	-	-	-0.1468	0.0798
Maintenance of the office /interior * YOUNG	0.2376	0.0717	-	-
Maintenance of the office /interior * CAPITAL	-	-	-0.1838	0.0886
Maintenance of the office /interior * TERTIARY EDUCATION	-	-	0.2325	0.0984
Attitude of the staff * VILLAGE	0.1458	0.0641	-	-
Attitude of the staff * OLD	-0.1390	0.0661	-	-
Attitude of the staff * FEMALE	0.1367	0.0498	0.1416	0.0546
Attitude of the staff * CAPITAL	-	-	-0.2961	0.0833
Attitude of the staff * TERTIARY EDUCATION	-	-	0.2997	0.0876
Attitude of the staff * RICH	-0.3425	0.0991	-0.3587	0.1000
Travel time * VILLAGE	-0.0026	0.0015	-	-
Travel time * POOR	-	-	-0.1509	0.0478
Travel time * DISABILITY PENSION	-0.0038	0.0015	-	-
Waiting * CAPITAL	-0.0050	0.0022	-	-
Waiting * VILLAGE	-	-	-0.0474	0.0199
Price * YOUNG	0.0002	0.0000	0.0000	0.0000
Price * OLD	0.0001	0.0001	0.0000	0.0000
Price * CAPITAL	-0.0003	0.0000	-	-
Price * VILLAGE	-0.0002	0.0001	-0.0000	0.0000
Price * PRIMARY EDUCATION	-	-	-0.0000	0.0000
Price * TERTIARY EDUCATION	0.0001	0.0001	-	-
Price * BAD HEALTH	-0.0002	0.0000	-	-
Price * RICH	0.0002	0.0001	-0.0000	0.0000
Price * LIVING ALONE	-0.0001	0.0000	-	-
Price * DISABILITY PENSION	-0.0001	0.0000	-	-
Rho	0.1841	0.0162	0.2023	0.0170
Observations	8296		8296	
Respondents	1037		1037	
LogLikelihood	-4792.93		-4810.75	
Chi2	235.54*		262.04*	

Note: all coefficients are significant, $p < 0.10$. The explanation of the variables is presented in Table A1 of Appendix A.

Figure 7.1 Marginal rates of substitutions in different socio-demographic groups – specialist examination

Figure 7.2 Marginal rates of substitutions in different socio-demographic groups – hospitalization

Marginal rates of substitution

Figure 7.1 and 7.2 present the MRS for the different non-price attributes. The MRS is higher for respondents below 30, with tertiary education, and with a household income higher than 1000 euro. It is lower for vulnerable social groups such as disabled and those with a bad health status.

The MRS is the indicative for the relative importance of attributes to the respondents, when choosing between health care services. In general, in the case of specialist services, respondents more value attributes associated with the characteristics of the health care personnel. The MRS of reputation of the physician in the base category is 7.2 euro and the MRS of the attribute “attitude of the personnel” is 6.2 euro. This means that if the specialist has a good reputation, health care consumers value the specialist visit higher (7.2 euro more) compared to an unknown specialist. These attributes are followed by modern equipments and maintenance of the office (MRS=5.5 and 4.7 euro). Access attributes (travelling time, and waiting time in front of the office) seem to be less important attributes for consumers (MRS=3.7 and 3.5 euro for the change from 60 to 15 minutes of travelling time and 45 to 10 minutes waiting time in front of the office).

In the case of hospital services, the MRS shows that respondents value a skilled surgeon with a good reputation the most (MRS=146.0 euro) compared to other attributes. It is followed by the decrease of the waiting time (from 3 months to 1 month) for the operation (MRS=108.2 euro) and also the attitude of the personnel (MRS=86.6 euro). Less important attributes are the interior of the hospital ward (MRS=88.9 euro), and the state of medical equipments in the hospital (MRS= 68.5 euro). Travelling time to the hospital has a significant role only in the choice of respondents from the lowest income category, less than household income 250 euro per month.

7.4 Discussion

In this chapter, we have examined the preferences of the Hungarian health care consumers for health care services using the DCE method. The DCE method is frequently applied to examine patient’s preferences and to model the consumers’ choice on the hypothetical market. In our study, we examine the preferences of Hungarian consumers for physician and hospital services, as well as the value that different socio-demographic groups attach to the improvements of these services.

We find that health care consumers in Hungary highly value the improvements of health care services. This is in accordance with previous findings on the attitude of health care consumers towards co-payments (see Chapter 4 and 6). Young and elderly consumers with tertiary education and with higher household income are

willing to accept a higher price for the improvement of the quality of health care services. Previous studies have also argued that people with higher education are more likely to invest in their health (Tomini et al., 2011; Mincer and Polachek, 1974; Becker, 1967). In accordance with the results of the contingent valuation method (see Chapter 6), vulnerable social groups (e.g. consumers from a village, with primary education, with bad health status and those who are living alone or living on a disabled pension) are less willing to accept payments for health care improvements. Consumers from the capital are also less willing to accept payments for improvements of the services. As we have already motioned the explanation of this finding might be that consumers from the capital are already experiencing better quality and access of health care services (see Chapter 6). Several studies have indicated, that in Budapest, consumers have much better access to health care services than in other parts of the country (Vitray et al., 2011; Belicza, 2006).

Also, health care consumers value the quality attributes connected to the health care personnel the most, i.e. the skills and reputation of the physician, as well as the attitude of the health care personnel. Medical equipments and the maintenance of the health care facility are also considered as important factors. However, waiting time in front of the office and travelling time to the health care facility are less likely to affect the choice of health care consumers. It seems that one hour of travelling to the specialist's office and even 3 hours of travelling time to the hospital is acceptable for consumers. In Hungary, this means that consumers do not mind to travel to the capital to be hospitalized, as the capital is accessible within 3 hours from most parts of the country. This might also suggest that the quality of the provided services differs between territories and confirms that health care consumers are not against travelling if they receive better quality care. A lower importance of access compared with clinical quality is also reported in several previous studies (e.g. Pavlova et al., 2003; Harris, 2002; Acharya and Cleland, 2000).

We also identify differences in the preferences by socio-demographic groups. Women in general value the attitude of the staff and reputation of the physician/surgeon relatively higher than men. People from the capital attach relatively lower importance to the attitude of the personnel and the reputation of the surgeon in case of hospital services, but put higher value on the state of medical equipment and a short waiting time in case of specialist services. Travelling time to the hospital is a significant determinant of the choice only for low-income households. They might be less able to afford travel costs.

7.5 Conclusions and policy implications

In this chapter, we have examined the preferences of the Hungarian health care consumers for health care services. Also, we also estimated consumers' willingness to pay for the improvement of service attributes.

In our study, we provide evidence that health care consumers in Hungary are ready to accept higher prices for health care services provided with better quality and access. This suggests, that consumers are not against paying official charges, however in return they expect improvements in service attributes.

We have found that health care consumers attach a higher value to the reputation of the specialist/surgeon and the attitude of the health care personnel compared to other attributes of health care services. Thus, according to consumer preferences, professional and personal skills should be remunerated. This finding indicates that priority should be given to investments in human resources. Especially, as indicated by the OECD, the outflow of health care workers, motivated by the salary levels below the average income in the economy, is one of the main challenges in the Hungarian health care sector (Eris, 2012). These preferences also explain the existence of informal patient payments paid to the health care personnel and make the eradication of these payments more challenging.

We have also indicated that vulnerable socio-demographic groups are more reluctant to accept high payments for health care services. It has been proven that such payments lead to unequal access to health care services (e.g. forgone visits), and with this, higher morbidity, emergency care admissions and mortality (Austvoll-Dahlgren et al., 2008; Atella et al., 2006). Thus, policies on patient payments should consider the negative equity effects of increasing formal charges as these payments induce a relatively higher burden on vulnerable socio-demographic groups who are less able to pay for health care services. The adequate exemption mechanisms for these groups should be set up based on the ability to pay to prevent adverse effect on equity. This is an especially relevant issue in Hungary as the health status of the population is one of the worst among European countries (Gaál et al., 2011; Eris, 2012; OECD, 2012).

Chapter 8

General discussion of the findings

8.1 Introduction

The main aim of the dissertation has been to examine past experiences and to identify challenges and perspectives regarding out-of-pocket patient payments for health care services in Hungary. In Chapter 2 and Chapter 3 we have examined past experiences with the implementation of user fees in Hungary in 2007. Besides the exploration of the scope and magnitude of patient payments in Hungary, we have particularly focused on the equity effects during the reform period and the effect of the introduction of user fees on informal payments. In Chapter 4 and Chapter 5, we have examined public acceptance, perceptions and attitudes of the Hungarian population towards patient payments, separately for formal and informal payments. While in Chapter 6 and Chapter 7, we have elicited the willingness of Hungarian health care consumers to pay official fees for health care services as well as we reveal consumer preferences for different attributes of health care services using stated preference methods. We have also paid special attention to the examination of the interrelation of willingness to pay formal fees and past informal payments.

In this chapter, we present and discuss the main findings of the dissertation in the form of six statements. Following the two main research questions, the first three statements reflect on past experiences with patient payments and point out the lessons to be learned from previous reforms. The last three statements call attention to the future challenges and perspectives of these payments based on findings on attitude and willingness to pay.

8.2 Lessons to be learned from previous experiences with the implementation of user charges

In the following, we present three statements related to the first research aim of the dissertation, to show the lessons to be learned from the experience with the implementation of user charges in 2007.

Statement 1: The introduction of user fees in Hungary was associated with a reduction of informal payments among the low-income households. The equity effects of these changes are unclear.

In the dissertation, we have confirmed our expectations formulated based on previous studies, namely that the implementation of co-payments leads to a relatively greater burden on worse-off households (Gelormino et al., 2011; Albrecht and Klazinga, 2009; Mastilica and Bozиков, 1999). At the same time, we observe that the increase of formal payments was partly compensated by the decrease of informal payments, especially in low-income households.

We observe that during the one year period (2007) when user fees were charged for the utilization of health care service, household expenditure on informal payments decreased and became less regressive, i.e. the decrease of these payments was higher in lower-income households (see Chapter 2). The reduction of informal payments can partly be explained by the drop in the utilization of services, which was recorded during this period. Physician visits and hospital admission decreased by 15-20 percent after the implementation of user fees (Kőrösi et al., 2009; Boncz et al., 2008; Nagy et al., 2008). However, we observe a higher decrease in the expenditure on informal payments among low-income households, which also suggests that worse off households tried to compensate the increase of formal payments by decreasing their expenditure on informal ones. Another finding of the dissertation, namely that the probability of paying informally for hospitalization decreased among elderly people shortly after the implementation of user fees, also suggests that those with lower ability to pay respond to the increasing burden of formal payments with the decrease of their expenditure on informal payments (see Chapter 3), as elderly people are likely to be among lower-income households in Hungary (Medgyesi et al., 1999).

Overall, the results presented above suggest that the implementation of user fees can lead to the reduction of informal payments of those health care consumers who are not able to pay the double burden. However, this finding raises questions concerning equal access to health care services. It is possible that consumers, who are not able to pay informally for health care services, may not obtain the services that other consumers, who continue paying, obtain. In this way, the reduction of informal payments can create even greater inequalities between different income groups.

Limitations: During the reform period, we observe a decrease in household expenditure on informal payments parallel to an increase in expenditures on formal payments. However, we cannot measure the causality of these changes. Furthermore, due to the lack of utilization data in the National Household Budget Survey, we cannot differentiate the effect of the drop in the utilization, recorded after the implementation of user fees, on informal payments.

Policy implications: In general, the reduction of informal payments is a desirable policy aim because of the adverse effect of these payments on the health care system, i.e. inefficient use of resources, barrier to access, and adverse financial incentives for beneficiaries. However, if the decrease of these payments only occurs among the lower-income households (among those who are not able to pay for the double burden), the equity effects of this change are questionable. The unequal decrease of informal payments among households with different income can increase inequalities in access, i.e. those who are able to pay for the double burden, may have better access to health care services compared to those who are not able to pay. Thus, the implementation of user fees is a rather controversial policy tool to decrease informal payments of the households.

Future research: The analysis of the equity in access during the reform period is not covered by this dissertation and should be the topic further research. According to the previous studies, co-payments imply a barrier to access especially for low-income households, who are more sensitive to price changes (Newhouse, 1997; Manning et al., 1987), which can result in a higher morbidity and mortality (Austvoll-Dahlgren et al., 2008; Atella et al., 2006). As mortality and morbidity indicators are rather poor in Hungary (the poorest among the OECD countries), the effect of the implementation of user fees on access is a relevant topic for further research. We also need further evidence whether those who do not pay informally experience more limited access to health care services compared to those who pay informally.

Statement 2: Formal and informal payments are complements rather than substitutes.

We find that after the implementation of user fees patients continue to pay informally and informal payments remain relevant (see Chapter 2). We do not find significant changes in the probability of paying informally for the last physician visit/hospitalization in the short run after the implementation of user fees, except for elderly patients for hospitalizations where we observe a decrease in the probability of paying informally (see Chapter 3). Experiences from other Central and Eastern European (CEE) countries also show that after the implementation of formal charges, informal payments remain relevant (Atanasova et al., 2011; Pavlova et al., 2011; Gaál et al., 2010).

This finding suggests that formal payments do not substitute for informal payments, at least on a short term, and these payments rather co-exist and complement each other. The explanation for this might be that formal and informal payments serve different objectives, and consumers achieve different things by paying formally and informally. In Hungary, informal payments are directly pocketed by physicians (mostly by the head/manger) and contribute to their income. In this way, these payments may affect the choice of the physician, the attitude of the personnel, or in some cases even the access to services. At the same time, formal payments have more potential to be used to improve equipment or the maintenance of health care facilities if reinvested in health care provision. However, as identified in this dissertation, the attributes connected to the health care personnel (i.e. the skills and reputation of the physician, as well as the attitude of the health care personnel) are more important for health care consumers than other service attributes, like the health care facility, equipments or even waiting time for the visits, or travelling time to the health care facility (see Chapter 7). In other words, Hungarian health care consumers are willing to travel and wait longer for the service, in order to be treated by skilled and polite medical staff. These results indicate the importance of the patient-physician relationship (e.g. the trust in the physician). Since informal payments are a relevant element of this relationship, it is quite probable that despite the formal charges, patients continue to pay informally directly to their physician, as an expression of

their gratitude or in the hope of getting extra services, better access or more personal attention. Or, they keep on paying informally, because of their fear that they do not obtain the care they need if they do not pay. The importance of the attributes connected to the health care personnel can also explain why some population groups (e.g. elderly people and consumers from the capital) prefer to pay informally for health care services (see Chapter 6). Particularly, informal payments serve different aims than formal payments, which aims are more valued by the population.

Findings from our qualitative study also support this explanation. According to these results, health care consumers doubt that user fees in 2007 had the potential to eradicate informal payments. They argue that user fees in 2007 could not substitute for informal payments, as neither the measure nor the objectives, nor the beneficiary of informal payments was the same as those of user fees. Furthermore, user fees do not necessarily contribute to the improvement of service quality, as it was the case with user fees in 2007 according to consumers (see Chapter 4).

To conclude, the findings suggest that the problem of informal payments remains relevant even after the implementation of user fees. However, if formal payments do not substitute for informal payments, user fees induce a double financial burden on health care consumers, and make official charges less acceptable to the public.

Limitations: The data which are used to analyze the effect of the implementation of user fees on the probability of paying informally (in Chapter 3), were collected shortly after (i.e. 2 months after) the introduction of user fees. Therefore, these results reflect only the short-term effects of user fees on informal patient payments. It is probable that more time is needed to observe any change in the behavior of consumers and providers. Nevertheless, the decrease in the health care utilization was noticeable right after the implementation of user fees (Körösi et al., 2009; Boncz et al., 2008; Nagy et al., 2008). Furthermore, results of the dissertation suggest that informal payments of households remained relevant in the longer run as well (see Chapter 2).

Policy implications: In CEE countries, where informal payments are widespread, the introduction of user fees is often promoted as a policy tool to eradicate or “formalize” informal payments (Stepurko et al., 2010; Schneider, 2008; Ensor 2004; Lewis, 2000). In 2007, this was also one of the main policy objectives of the introduction of user fees in Hungary. However, there is no evidence in the literature, which clearly supports this suggestion. The results of the dissertation also raise concerns about this expectation. We find that after the implementation of user fees, informal payments remain relevant and the two payments co-exist. However, the increase of formal payments may indeed lead to a decrease in informal payments, specifically in low-income households who are not able to pay for the double (formal and informal) price (see Statement 1). This mechanism can increase inequalities in access. Thus, the implementation of user fees is hardly sufficient and rather a controversial policy tool to diminish informal payments.

Future research: Future qualitative research should address the question, what can be achieved by informal payments, and under what conditions they can replace the informal ones. Research on consumer preferences and behavior will be important for the analysis of this issue.

Statement 3: **The stated policy objectives of the user fees introduced in 2007, to control the utilization of health care services and to eradicate informal payments, were not supported by Hungarian health care consumers.**

According to the policy documents, the control of the utilization of services (“the curb of the unnecessary visits”), and the eradication of informal payments were the two main objectives of the implementation of user fees (Ministry of Health, 2006). However, we find that these objectives are not entirely supported by the public (see Chapter 4). The population is rather divided regarding the policy objective to control utilization. A group of consumers, mostly pensioners and families with children who are the most frequent users of services, do not agree that a decrease of the utilization of services is essential in Hungary. Moreover, they often refer to the negative effects of user fees on the access to services, i.e. those who cannot afford, will forgo physicians visits.

Regarding the second policy objective, the eradication of informal payments, there is a consensus among health care actors, namely they all doubt that user fees introduced in 2007 had the potential to eradicate informal payments. As mentioned above, health care consumers argue that user fees in 2007 could not substitute for informal payments, as neither the measure nor the objectives, nor the beneficiary of informal payments were the same as those of user fees (see Statement 2).

The lack of support of the stated policy objectives might be one of the reasons why the fees were rejected by the population in the referendum, where more than 80 percent of the participants voted for the abolishment of user fees.

Limitations: In the dissertation, we have attempted to explain the unpopularity of the user fees introduced in 2007 among the Hungarian population, by revealing health care actors’ expectations towards and experiences with formal fees. However, it should be taken into consideration that other factors, mostly political, also contributed to the opposition of user fees. For example, the lack of support and trust in the government, the unpopularity of other restrictive arrangements in and outside of the health care sector, which aimed at the decrease of the public deficit, were also reflected in the results of the population referendum (see Chapter 4).

Policy implication: The Hungarian experience with the implementation of user fees confirms that public acceptance is crucial for a successful implementation of user fees. However, in Hungary the declared policy objectives of the implementation of

the user fees were not supported by the public, making the implementation of these charges more unpopular.

Nevertheless, regarding the stated policy objectives, the enhancement of the efficient utilization of health care services is a reasonable goal in Hungary. The utilization of health care services (e.g. the number of physician contacts and hospital admission per capita) is one of the highest in OECD countries (see Chapter 1). However, health care outcomes are not in line with these outputs, as mortality and morbidity indicators are among the poorest in OECD countries. This draws attention to the lack of efficiency in the system (Eris, 2012; OECD, 2012). Furthermore, our results suggest that health care providers also find control of the utilization of visits necessary (see Chapter 4). As we have shown in this dissertation demand-side measures such as the implementation of user fees to improve efficiency in the system (i.e. control the utilization of services) are rather controversial (see Chapter 2). User fees induce a greater financial burden on low-income groups, lead to a barrier to access and this might imply a further decline in morbidity and mortality, which is far from desirable in Hungary. Thus, instead of demand-side incentives, supply-side measures (e.g. the revision of the referral system, the changes in the regulation of prescriptions, the enhancement of the managed care and the gatekeeper role of GPs, as well as structural reforms) should be considered by policy makers to control the utilization of services. These tools can enhance the efficient use of resources, but they are not associated with negative effects on equity. Particularly, these measures do not impose a barrier to the access of health care services for those who are not able to pay. Consequently, supply-side tools to control demand might be more acceptable for the public as well.

Regarding the second policy objective of user fees, as we have seen above, the potential of user fees to eradicate informal payments is questionable, as the measure, objective and beneficiaries of these payments are different from those of user fees. Furthermore, the mechanism how the implementation of user fees induces the reduction of informal payments is controversial (see Statement 1 and Statement 2). In this way, it is suggested not to emphasize the potential of user fees to eradicate informal payments in policy discussions.

To conclude, consensus on the necessity and on the policy objectives of user fees is essential to the successful implementation of the fees. Thus, close communication with the public about their expectations and about the policy objectives of the fees is essential before the fee implementation. Regarding the sensitivity of the issue, strong political support and the consensus among political parties on this subject would be also desirable.

Further research: Further research should explore the reason for the high utilization of health care services in Hungary, to identify the causes and find adequate measures on the supply side to enhance a more efficient use of health care resources. Public opinion on the implementation of user fees could be explored further as well.

8.3 Public attitude towards patient payments and willingness to pay

The following three statements are related to the second main aim of the dissertation, namely to identify challenges and perspectives for patient payments in the future, focusing on the public attitudes toward patient payments (formal and informal), as well as on willingness of the health care consumers to pay official fees for health care services.

Statement 4: Hungarian health care consumers are not against official payments for health care services, however they expect value for their money.

The results of our qualitative study suggest that the Hungarian population is rather discontent with the quality of health care services provided by the social health insurance (see Chapter 4). Health care consumers mostly complain about long queues, long waiting times, lack of personal attention, poor maintenance of the health care facilities and shortage of equipment. They associate the low quality of services with the lack of financial and human resources of health care providers. Consumers consider user fees as a potential solution to increase financial resources in the health care system. They would be willing to contribute for the costs of the provided services, if these fees assure the improvement of service provision.

We have also tested these expectations (formulated based on the qualitative results of the dissertation in Chapter 4) on a representative sample of the Hungarian population (see Chapter 6 and Chapter 7). We have applied stated preference methods, namely contingent valuation and discrete choice experiment to examine whether health care consumers are willing to pay official fees for health care services provided with good quality. The results of the contingent valuation study verify our expectations that the majority of respondents are willing to pay for health care services provided with certain quality and access (see Chapter 6). About 66 percent of the respondents would be willing to pay official fees for a specialist examination (on average 14 euro) and 56 percent for planned surgery (on average 101 euro). Furthermore, the results of the discrete choice experiment study confirm that health care consumers are willing to pay for the improvement of some quality and access attributes of health care services (see Chapter 7).

The results of both stated preference methods (contingent valuation in Chapter 6 and discrete choice experiment in Chapter 7) suggest that a higher willingness to pay and acceptance of fees is associated with higher household income and a higher education. Based on previous literature, these individuals are more likely to invest in their health (Tomini et al., 2011; Mincer and Polachek, 1974; Becker, 1967). On the other hand, we find that vulnerable socio-demographic groups, such as elderly people, people on disability pension with lower household income and

low education, are less willing to accept formal fees for health care services. Lower willingness to pay is associated with lower ability to pay. However, after controlling for income and service utilization, we still observe a lower willingness to pay in these population groups. Thus, elderly people, those who are living on disability pension and individuals with lower education represent the opposition against payments for health care services, and may consider that health care services should be provided free of charge.

Also, both the contingent valuation and the discrete choice experiment study results suggest that citizens from the capital are less willing to accept payments for improvements of the services. In Budapest, health care consumers are already experiencing better access of health care services (Vitray et al., 2011; Belicza, 2006), which might explain their lower willingness to pay.

Limitations: The application of stated preference methods has some limitations, especially the predictive validity of these methods is questionable, as decisions in a hypothetical scenario might not be reflecting real life decisions. Thus, the willingness to pay derived, should be used with caution (e.g. Ryan and Watson, 2009). The results can point to the investment priorities, but are not to be used to set prices.

Policy implications: According to our findings, Hungarian health care consumers are not against paying official fees for health care services, however, they expect better services in return. Thus, user fees should assure improvement in service quality, to be accepted by the public. The experiences with user fees (presented in Chapter 3) also show that without appreciable improvements in the quality of health care services, formal charges remain unpopular as user fees in 2007 (see Chapter 4; also Baji and Gulácsi, 2010).

Thus, the implementation of user fees on its own is not a guarantee for the improvement in services quality. The issue of quality improvement is a challenging one in Hungary. There is some evidence indicating quality problems in health care provision. Previous studies suggest that timeliness and appropriateness of health care services is lacking in Hungary (Eris, 2012; OECD, 2012; Makai et al., 2009; Wagner et al., 2006; Gulácsi et al., 2004; Gulácsi et al., 2002b; Gulácsi, 2001; Gulácsi et al., 2000). However, the number of available health care quality indicators is limited as well, the quality of the provided services is hardly monitored and no quality requirements are settled in regulations (OECD, 2012; Gulácsi, 2001). The lack of quality measurement and reporting also creates undesirable incentives for health care actors to use informal payment channels (Szende and Culyer, 2006). Thus, quality measurement should be the first essential step to establish sustainable policies on patient payments.

The quality measurement would be essential and beneficial for several reasons. First, with quality measurement the provision of health care services would be

compellable (i.e. it would be clear for consumers what the value for their money is) and comparable across providers both in the private and public sector. Quality measures help to identify the main problems and main investment priorities in the system. Furthermore, this helps to diminish the informal payments channels as well. Besides, quality indicators could help in the specification of health care services, used in national legislation. Such indicators could be used to define characteristics and requirements of services covered by the social health insurance and at the same time appoint those services or service attributes for which co-payments are charged.

The practice of Western European countries to set up quality measurements standards can be adopted in Hungary (Kelley and Hurst, 2006). Quality indicators should cover not only the structure (characteristics and inputs to health care), but also the process (the appropriateness of delivery of appropriate care to the relevant population at risk) and the outcome (measures of health improvements) of health care services as well (Donabedian, 2003; Donabedian, 1980).¹⁹ In the context of user charges, the indicators of access and equity would be especially relevant to be monitored in order to avoid adverse effects.

Finally, population groups who are against user fees and not willing to pay for the quality improvements require special attention in the policy discussion and communication to convince them about the necessity of the payments. Also, exemption mechanisms based on ability to pay should be considered to avoid negative equity effects of user fees.

Future research: Further research may address the expectations of health care consumers about the quality of services. Our study covers only a few dimensions of services, mostly those which were considered to be the important for health care consumers during focus group discussions. Further research should be carried out on the supply side as well, on the current quality of health care services, to be able to identify the investment priorities with their financial requirements. Studies could examine the potentials of pay-for-performance systems, which reward providers for quality.

Statement 5: For Hungarian health care consumers the perceived “poor service quality and low salary of physicians” legitimate the existence of informal payments.

We have shown in this dissertation that informal payments are still widespread in Hungary, even 20 years after the fall of the socialist regime. We have found that

¹⁹ In high income countries, the most frequently applied indicators are effectiveness, safety, patient-centeredness-patient focus or responsiveness (the patient's experiences with care), access, equity and efficiency. Furthermore, measures of accessibility of care, appropriateness of care, competence or capability of health care workers, continuity of care and timeliness are also applied in some countries (Kelley and Hurst, 2006).

almost half of the households expenses spent on health care services are informal payments (see Chapter 2). In 2007, 9 percent of the patients paid informally during their last visit to a GP (on average 2 euro), 14 percent for specialist visit (on average 35 euro), and 50 percent paid informally for hospitalization (on average 58 euro) (see Chapter 3). We have found that in 2010 around one-fifth of the respondents who used physician services during the last 12 months, made informal payments, and almost half of the respondents who were hospitalized during the last 12 months, paid informally (see Chapter 6). These results are in accordance with the results of previous studies on informal payments in Hungary, and suggest that Hungarian health care consumers pay informally for medical services on a routine basis, especially in in-patient care (Gaál et al., 2006b; Szende and Culyer, 2006; Bognár et al., 2000). The findings also suggest that the measure of these payments has not changed considerably during the last two decades and remain the concomitant of the current health care system as well.

In Chapter 5, we point out that health care consumers are tolerant towards informal payments as they consider these payments inevitable due to the lack of resources in the health care system. This perception is in accordance with the economic explanations of informal payments and supports the theory of Gaál and McKee (2004), who interpret informal payments as a reaction to the declining performance in the health care system, i.e. dissatisfied health care consumers who have no possibility to satisfy their needs elsewhere, are using informal channels to obtain services according to their expectations (Gaál and McKee, 2004).

Limitations: Given the sensitivity of the issue of informal payments, respondents in our survey may feel uncomfortable in answering questions on informal payments, or may give socially desirable answers, which might lead to biased results. The use of self-administered questionnaires could avoid this problem, however might result in missing answers.

Policy implications: Hungarian health care consumers tolerate informal payments, because for them the perceived poor quality of services legitimates these payments. This attitude is enhanced by health care providers as well. According to the Ethical Codex of the Medical Chamber informal payments are legal and legitimate because of the low salary of physicians and dysfunctioning of the health care system. The average salary of the health care workers is indeed below the average income in Hungary. Furthermore, so far the national regulations do not explicitly forbid informal patient payments either. Since July 2012, the Labor Code prohibit receiving informal payments, however, the employer have the right to dispense their employers from this decree.

Thus, in Hungary informal payments seem to be tolerated by all health care actors mainly because these payments contribute to the financing of the health care services by providing additional salary to the health care personnel. According to the estimations of Gaál et al. (2006) physicians may have earned between 60 and 236

percent of their net official income from informal payments (Gaál et al., 2006b). However, it has to be highlighted that only a small group of physicians benefits from these payments (mostly head physicians and managers). Thus, informal payments hardly solve the wage problems for majority of the health care workers. For the beneficiaries, informal payments create adverse incentives, which can violate the general policy objectives, and they might have the power to block important changes in the health care system (e.g. quality improvement) to maintain the status-quo (Gaál et al., 2005). On the other hand, those who do not (or refuse to) benefit from these payments, salary levels remain under the average wage in Hungary, which induce the outflow of the physicians and other health care workers from the country (Eke et al., 2011; OECD, 2012). The latest OECD report on the performance of the Hungarian health care system points out that one of the most pressing issues affecting the health care system is the outflow of the health care workers (OECD, 2012).

To conclude, as long as health care consumers get the message both from the government and from the health care personnel, that these payments are acceptable and legitimate, moreover necessary, the positive attitude of consumers towards informal payments cannot be expected to change. However, in order to deal with these payments, it is necessary to address this positive attitude of consumers and other health care actors towards informal payments. These payments should be strongly discouraged by being considered as a corrupting practice subject to sanctions (OECD, 2012). At the same time, there is an instant need to address wage problems in the health care system, however, this should be handled as a separate issue.

Further research: The application of qualitative methods should also be considered for exploring perceptions of health care consumers of informal payment. Furthermore, due to the sensitivity of the issue less is known about the opinion and attitude of the beneficiaries towards informal payments. A qualitative research with health professionals might provide better insight into the nature of informal payments.

Statement 6: Past informal payments indicate a willingness to pay formal fees.

In the dissertation, we have found a significant and positive correlation between willingness to pay user fees, and the past informal payments of health care consumers (see Chapter 6). We observe that those who are paying informally, would be more willing to pay formal fees as well for services provided with good quality and access. The probability that the respondent is willing to pay formally for health care services is 22 percentage points higher for specialist visits and 45 percentage points higher for a hospitalization if the respondent paid informally during the last 12 months. In this way, past informal payments indicate a willingness to pay formal fees.

However, we find that some population groups may prefer to pay informally, i.e. elderly people and people living in the capital are more likely to pay informally for physician visits, at the same time, they are less willing to pay formal fees for specialist services.

Finally, those who are less likely to pay informally are less willing to pay formally as well. Especially among those who were hospitalized and did not pay informally, the willingness to pay formal fees is rather low (37 percent) compared to those who paid (83 percent). Also, the results of Chapter 5 suggest that those who are against informal payments are against formal payments as well.

Limitations: As mentioned above, the predicted validity of stated preference method used for the analysis is questionable. Furthermore, it is not clear from the survey, whether consumers would be willing to pay these fees instead or on top of their informal payments.

Policy implications: Regarding the relationship between past informal payments and willingness to pay formal fees, we have found that those who are paying informally would not be against paying formally either. This suggests that the incentive behind the willingness to pay formal fees and informal payments is similar. Based on the previous findings, this incentive is the desire to achieve better quality care. Hungarian health care consumers associate the low quality of services with the lack of resources in the health care system and the financial problems of the health care providers. As we have found in this dissertation, this perception motivates consumers' willingness to pay formal fees, as they see user fees as a potential to increase financial resources (see Chapter 4, 6, 7; also Statement 4). At the same time, this also explains informal patient payments as a reaction to the declining performance of the health care system. Thus, policy makers should be aware that health care consumers do not mind using informal payment channels to satisfy their needs.

The behavior of those, who seem to prefer informal payments compared to formal ones, is rather challenging from a policy point of view as they might provide opposition towards formal fees. They may think that informal payments will remain relevant after the implementation of user fees (in accordance with Statement 2), so they are against formal payments as they do not want to pay twice.

Those who are not paying informally and/or are against informal payments might also represent strong opposition to the implementation of user fees as they are less willing to pay formal fees as well. They might be against all kinds of payments for health care services and consider that health care services should be provided free of charge, without any co-payments (either formal or informal). Thus, they need special attention in the communication on the necessity and policy objectives of the fees.

Future research: The examination of the reasons for the unwillingness to pay formal fees as well as the reason for not paying informally for health care services (i.e. whether consumers object or are not able to pay) has also policy relevance and should be also addressed by future research.

8.4 Challenges and perspectives - some final remarks

As it was pointed out in the introduction of this dissertation, out-of-pocket patient payments for health care services provide a puzzling policy issue for Hungary. While consumers are used to pay substantial amounts of co-payments for pharmaceuticals, and are regularly paying for health care services covered by the social health insurance through informal payment channels, the implementation of user fees for health care services remains a rather sensitive political issue.

Experiences with the implementation of these fees in 2007 might hold back policy makers from the reintroduction of the fees in the future to avoid political resistance and unpopularity among the public. The current practice also suggests that policy makers are beware of the implementation of user fees, and they prefer to choose other ways to increase private resources in the financing of health care provision. The current policy of the government aims at the enhancement of the private health insurance system, which role has been limited in health care financing so far. However since the beginning of 2012, the government offers tax-subsidies for companies who purchase private health insurance for their employees.²⁰ This change in the regulation can support the extension of private health insurance market as well as the private market of health care services. Some insurance companies have already come out with new health insurance products and have contracted with private providers. Actors on the private health insurance market see a potential in offering products with shorter waiting time for doctor visits, operation or diagnostics, and promise that private health insurance can substitute informal payments. However, this dissertation has focused on user fees for services covered by the social health insurance, some of the results (especially on consumer preferences and willingness to pay) may also be helpful and relevant to establish policies on the enhancement of private health insurance or the private market of health care services. Furthermore, the findings can be interesting for actors in the private sector to estimate potential demand, and to have better insight into consumers' expectation and preferences.

Actually, the concept of private health insurance is in accordance with the expectations of health care consumers. Our qualitative results suggest that health care consumers expect the basic benefit package of services to be more clearly defined and to be provided free for all, while according to them, those who want "extra or better" services should pay. The extension of a parallel private sector would imply that those health care consumers, who are willing and able to pay, can opt for the private sector. However, it should also be noted that the extension of the parallel private sector has a questionable effect on the quality of services covered by the social health insurance. There is a hint that the extension of the private sector leads to a decline of quality of the public health care services, e.g. increasing waiting time, and the consequences of

20 For more information see: http://www.biztositasiszemle.hu/cikk/hazaihirek/gazdasag/munkaltatoi_egeszssegbiztositas_adomentes_juttataskent_adhatjak_dolgozoiknak.996.html

double shift of physicians or the migration of physicians to the private sector (Gaál et al., 2004; Tuohy et al., 2004).

No matter which way is chosen by policy makers to extend the role of private resources, the key message of this dissertation should be kept in mind: consumers expect value for their money. They would be willing to pay for health care services if they received better quality care in return. This finding draws attention to the necessity of quality measurement and monitoring in Hungary. As discussed above, at the moment this is missing in Hungary. However, quality management would help to identify the main problems and main investments priorities in the system, to evaluate and compare performance of health care providers and to define requirements for services covered by the social health insurance, which consumers are entitled for.

The lack of quality measurement also encourages informal payments channels. Due to the negative effect of informal payments on transparency, efficiency, access and undesirable incentives for health care providers, the OECD considers the eradication of informal payments as one of the main challenges in Hungary (OECD, 2012). The solution for the problem of informal payments was not specifically the focus of the dissertation as we have rather focused on the relationship between formal and informal payments. However, our results provide better insight into the phenomenon, and the results might support policy making on these payments as well. We find that informal payments are not only the heritage of the socialist period but the concomitant of the present health care system as well. These payments reflect on the deficiencies of health care provision (e.g. poor service quality, low salary of the health care workers, poor governance). Furthermore, these payments are also interrelated with other socio-cultural factors outside the health care system. According to Ludwig van Mises “If you want to abolish war, you must eliminate its causes”. The results of the dissertation suggest that the same stands for informal payments. The issue of informal payments cannot be addressed as a separate problem for the health care system to solve. Fundamental changes in and outside the health care system are necessary to achieve appreciable results regarding the eradication of informal payments. Hence, for Hungary, there is still a long way to go.

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Appendix A

Quantitative data and data collection

Quantitative data and data collection

In Chapter 5, 6 and 7, we use data from a survey carried out in July 2010 as a part of an international research project. The questionnaire included questions on: past utilization of and payments for services; attitude towards informal payments; discrete choice experiment and contingent valuation tasks to elicit willingness to pay of the respondents to pay official fees for health care services covered by the social health insurance; and socio-demographic features of the respondents. The English wording of the questionnaire can be found in Appendix B.

The data were collected in July 2010 in a household survey among adult citizens (age 18+). The survey was conducted via face-to-face individual interviews at the respondents' home. The aim was to have 1000 effective interviews per country that present samples representative for the country. The respondents were identified based on a multi-staged random probability method. During the first stage, sampling points in the country were selected. Within each of the seven regions in Hungary, the cities, towns and villages (rural area) included in the survey, were selected at random proportionally to regional and urban/rural characteristics of the population. In particular, the number of sampling points in the rural areas was calculated based on the ratio of the urban/rural population in the country. As the objective was to have 7-8 interviews per sampling point, in total, 132 sampling points (43 in rural area) have been included (36 in Central Hungary, 14 in Central Transdanubia, 13 in West Transdanubia, 15 in South Transdanubia, 16 in North Hungary, 19 in North Lowland and 17 in South Lowland). In the second stage, to select addresses/households of potential respondents, the random route method was used. For each sampling point, a starting point and direction were determined²¹. In the third stage, the selection of the respondent within the selected household was done using the "last birthday" principle. In this procedure, the interviewer asked to speak to the adult member of the household who had the last birthday. The last-birthday method is based on the assumption that the assignment of birthdates is a random process and also every household member has an equal chance of being selected (for further information see Oldendick et al., 1988; Gaziano, 2005).

As mentioned before, the aim was to have 1000 completed interviews (7-8 per sampling point). Thus, when the selection of a respondent at the third stage failed

21 The household selected for the survey, was every forth address on the left hand side of the street in urban areas, turning left at intersections and, after reaching a dead end, going back to the last crossing and further proceeding at random. In a block-of-flats of up to four floors, every fifth apartment household was selected, counting from the first apartment on the left of the ground floor. In cases of unsuitable household, the interviewers approached the apartment next-door and continued doing this until reaching a suitable household. At that point, the interviews resume the standard step of every fifth apartment. In a block-of-flats of 5 floors and more, the selection was every tenth apartment. In rural areas, every fourth inhabitable house on both sides of the interviewer's route was selected. In compounds of several houses behind a common fence, the interviewer had to select the fourth one from the left (counting from the gate), or if there were less than four houses behind a common fence, then the interviewer went out of the common yard, counting the houses as if they were along the street.

(including the cases when the household or the respondent with the last birthday in the household could not be successfully contacted after 3 attempts, or the respondent refused or was unavailable to take part in an interview), a replacing respondent was identified in the same sampling point following the second and third stage of the selection method (i.e. random route method to identify the household and the last birthday principle to identify the respondent within the household). The interviews were carried out face-to-face by qualified and experienced interviews who attended a training prior to the survey to clarify the fieldwork standards and the specificities of the questionnaire. A high number of interviewers (130) were involved in the survey to avoid the interviewer bias that might occur when one interviewer carries out many interviews. Each interviewer carried out 6-8 interviews.

Altogether, 1376 respondents were successfully contacted²², out-of them 330 refused or were unable to participate in the survey. This resulted in a response rate (calculated as interviewed/successfully contacted respondents) of 76%. The final sample for Hungary contains data for 1037 respondents²³, 104-285 interviews per region in 132 sampling points. After the data collection, about 10% of all respondents interviewed were re-contacted either by telephone or in person to verify that the interview had been carried out. The verification procedure did not indicate problems.

All respondents were asked for an informed consent at the start of the interview. The survey targeted the general public (not specific patient groups) and had the form of a consumer survey. Therefore, there was no need for an approval of an ethics committee (also there was no experiment on patients). The data collection was performed in accordance with the ICC/ESOMAR International Code of Marketing and Research²⁴.

Sample characteristics

Descriptive statistics are presented in Table A1. The average age of the sample population is 46.3 years (sd=17.6), 46.4 percent of the respondents are men, 53.6 percent living in a town, 17.6 percent in the capital, the rest (28.8 percent) is living in villages. Most of the respondents (67.0 percent) finished education at secondary level, and 49 percent of them are working. The average household income is 167 470 HUF (sd=93 960 HUF). The data represents the Hungarian population well. Past utilization and payments for health care services are presented in Table A2.

22 In 178 cases the interviewer was not able to contact the household (e.g. nobody was at home after 3 visits, or the address was non-eligible - non-residential building, nobody lives at this address, empty dwelling/s, building) or was not able to contact the respondent who had the last birthday in the household (the respondent was not at home and the interviewer could not obtain appointment for a next visit).

23 Out of the 1046 interviews completed, in 9 cases, the interviews were discarded due to various deficiencies in data collected, such as over 40% non-answered questions or "don't know" answers.

24 Details can be found at:
http://www.esomar.org/uploads/public/knowledge-and-standards/codes-and-guidelines/ESOMAR_ICC-ESOMAR_Code_English.pdf

Table A1 Socio-demographic characteristics of the sample used for the analysis in Chapters 5-7

Socio-demographic characteristics	Measurement	Value range	Frequency n[%]	Mode	Median	Mean	Sd
Gender	Dummy	0 = male 1 = female	481 [46.4%] 556 [53.6%]	1	1	-	-
Age	Scale	18-92	-	20	47	46.3	17.5
Young*	Dummy	0 = Over 30 1 = Under 30	822 [79.3%] 215 [20.7%]	-	-	-	-
Old*	Dummy	0 = Under 65 1 = Over 65	839 [80.9%] 198 [19.1%]	-	-	-	-
Residence	Ordinal	1 = village* 2 = town 3 = capital*	303 [29.2%] 552 [53.2%] 182 [17.6%]	2	2	1.9	0.7
Education	Ordinal	1 = primary or less* 2 = vocational 3 = secondary 4 = tertiary*	210 [20.3%] 324 [31.2%] 371 [35.8%] 132 [12.7%]	3	2	2.4	1.0
Disability pension	Dummy	0 = No 1 = Yes	956 [92.2%] 81 [7.8%]	0	0	-	-
Number of persons in the household	Scale	-	-	2	2	2.7	1.3
Household type	Dummy	0 = living with others 1 = living alone	837 [80.7%] 200 [19.3%]	-	-	-	-
Bad perceived health	Dummy	0 = Fair to perfect 1 = Very bad to bad	914 [88.1%] 123 [11.9%]	-	-	-	-
Net monthly household income (HUF)	Scale					167 470	93 960
High net monthly household income (rich)*	Dummy	0 = under 1000 euro 1 = over 1000 euro	917 [88.4%] 120 [11.6%]	-	-	-	-
Low net monthly household income (poor)*	Dummy	0 = over 250 euro 1 = under 250 euro	950 [91.6%] 87 [8.4%]	-	-	-	-

Note: The exchange rate used in the survey is 1 EUR = 285 HUF. *Dummy variable was used in the regression analysis. +Used as dummy variables in Chapter 7.

Table A2 Past utilization and payments for health care services among the sample

Service utilization	Measurement	Value range	Frequency n[%]	Mode	Median	Mean	Sd
Visited physician	Dummy	1=visited 0= not visited	830 [80.0%] 207 [20.0%]	1	-	-	-
Number of physician visit	Scale	-	-	-	4	6.58	6.30
Forgo physician visit	Dummy	1=yes 0=no missing	257 [24.8%] 772 [74.4%] 8 [0.8%]	0	-	-	-
Paid informally for physician visit	Dummy	1=paid informally 0=not paid	174 [21.0%] 656 [79.0%]	0	-	-	-
Informal amount for physician (HUF)	Scale	-	-	-	10 000	16 857	22 019
Hospitalized	Dummy	1=hospitalized 0=not hospitalized missing	219 [21.1%] 817 [78.8%] 1 [0.1%]	0	-	-	-
Number of hospitalization	Scale	-	-	-	1	1.88	2.17
Ever been hospitalized	Dummy	1=hospitalized 0=not hospitalized	849 [81.9%] 188 [8.1%]	1	-	-	-
Forgo hospital admission	Dummy	1=yes 0=no missing	27 [2.6%] 1007 [97.1%] 3 [0.3%]	0	-	-	-
Paid informally for hospitalization	Scale	1=paid informally 0=not paid	97 [44.3%] 122 [55.7%]	0	-	-	-
Informal amount for hosp. (HUF)	Scale	-	-	-	30 000	37 289	46 447

Note: The exchange rate used in the survey is 1 EUR = 285 HUF.

Appendix B

The English wording of the questionnaire

INFORMED CONSENT PROCEDURE

BEFORE YOU START, READ THE FOLLOWING TO THE RESPONDENT:

- The aim of this survey is to collect data on citizens' opinion about the quality, access and price of medical services they use.
- The survey is not commissioned by the government or a health insurer.
- This survey is part of an international research project funded by the European Commission. The same survey is carried out in several European countries.
- The data collected during the survey will be used for research purposes, namely for statistic analyses and reports.
- Your answers will not be related to your personal details (address, etc.) and will be completely confidential.
- Answers to all questions are highly important to the project, so we hope that you will share your opinions and thoughts by answering all questions in the questionnaire.

Do you agree to participate in this survey?

1 = YES
0 = NO

CONTINUE THE INTERVIEW ONLY IF THE RESPONDENT AGREES TO PARTICIPATE.

ASK THE QUESTIONS FOLLOWING THEIR ORDER IN THE QUESTIONNAIRE.

READ THE EXACT WORDING OF THE QUESTIONS, AND AFTERWARDS, IF NECESSARY, MAKE CLARIFICATIONS.

USE LOCAL CURRENCY FOR ALL RELEVANT QUESTIONS (XXX) NOTE: 1EUR=285 HUF.

PLEASE TRY TO AVOID “DON’T KNOW” (DK) ANSWERS AND REFUSALS.

IF THE RESPONDENT REFUSES TO ANSWER, KEEP THE ANSWER BOX BLANK..

PROJECT: ASSPRO CEE 2007
SURVEY: WILLINGNESS AND ABILITY OF PATIENTS TO PAY
FOR MEDICAL SERVICES
QUESTIONNAIRE - ROUND 1 / JUNE-JULY 2010 / HUNGARY
FIELDWORK CARRIED OUT BY: James and Taylor Consulting
FIELDWORK MANAGED BY: BBSS Gallup International

THE QUESTIONNAIRE SHOULD BE FILLED IN ONLY FOR RESPONDENTS WHO ARE 18 YEARS OLD OR OLDER.

FILL IN THE FOLLOWING INFORMATION:

SAMPLING POINT			
REGION			
RESPONDENT ID NUMBER			
DATE OF THE INTERVIEW (DD/MM/YYYY)			
	/		
	/	2	0
		1	0
START TIME (USE 24 HOURS CLOCK)			
	:		
INTERVIEWER ID NUMBER			

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PART 1: USE AND PAYMENTS FOR PHYSICIAN SERVICES USED BY THE RESPONDENT

The first set of questions concerns medical services that YOU used during the last 12 months (June 2009 – May 2010), and the money that you paid out-of-pocket (or your family members paid on your behalf) for YOU receiving these services.

Out-of-pocket payments include OFFICIAL payments, for which one may usually receive a receipt or other document, INFORMAL cash payments (such as gratitude cash payments or under-the-table cash payments), or gifts in kind for receiving medical services.

Out-of-pocket payments EXCLUDE monthly payments for health insurance (or voluntary health accounts), as well as payments that the patient receives back from the state or a health insurer.

INSTRUCTION: QUESTIONS Q.1A-Q.3A DEFINE NEXT SECTIONS. PLEASE TRY TO AVOID "DON'T KNOW".

Q.1A	During the last 12 months, how many times did YOU PERSONALLY visit a physician or a physician visited you personally at your home, including any physician in both the public and private system? (Homeopaths and traditional healers who are not physicians, and also dentists are excluded.)	<div> <div>TIMES</div> <div>0=None</div> <div>99=DK</div> </div> <div>IF NONE, GO TO Q.2C</div>
Q.1B	Considering all types of official and informal cash payments, and gifts in kind, how much IN TOTAL did you spend (out-of-pocket) on these visits EXCLUDING payments for travelling, transportation by ambulance and pharmaceuticals?	<div> <div>XXX</div> <div>0=None</div> <div>99=DK</div> </div> <div>IF NONE, GO TO Q.2A</div>
Q.1C	How much of this amount approximately was for INFORMAL cash payments and gifts in kind?	<div> <div>XXX</div> <div>0=None</div> <div>99=DK</div> </div>
Q.1D	Was it necessary to TAKE OR BORROW cash from family, friends, bank, via credit card or sell assets to cover these formal and informal payments for PHYSICIAN services that you used?	<div> <div>1 = YES</div> <div>0 = NO</div> <div>99=DK</div> </div> <div>IF NO/DK, GO TO Q.2A</div>
Q.1E	How much IN TOTAL was it necessary to take or borrow?	<div> <div>XXX</div> <div>99=DK</div> </div>
Q.2A	Are you overall satisfied with the QUALITY of physician services that you used during the last 12 months – yes, no, somewhat?	<div> <div>2 = YES</div> <div>1 = SOMEWHAT</div> <div>0 = NO</div> <div>99=DK</div> </div>
Q.2B	Are you overall satisfied with the ACCESS to physician services that you used during the last 12 months – yes, no, somewhat?	<div> <div>2 = YES</div> <div>1 = SOMEWHAT</div> <div>0 = NO</div> <div>99=DK</div> </div>
Q.2C	During the last 12 months, how many times have you been ill but DID NOT VISIT AT ALL a physician because you could not afford to pay either for the visit or for the transportation/travel?	<div> <div>TIMES</div> <div>99=DK</div> </div>

PART 2: USE AND PAYMENTS FOR HOSPITAL SERVICES USED BY THE RESPONDENT

Q.3A	During the last 12 months, how many times were YOU hospitalised (placed in a hospital), including day surgeries or day treatments? (Re-hospitalisation, i.e. repeated hospitalisation for the same health problem, should be counted separately as a different hospitalisation.)	<div> <div>TIMES</div> <div>0=None</div> <div>99=DK</div> </div> <div>IF NONE, GO TO Q.4C</div>
Q.3B	Considering all types of official and informal cash payments, and gifts in kind, how much IN TOTAL did you spend (out-of-pocket) on these hospitalisations EXCLUDING payments for travelling, transportation by ambulance and pharmaceuticals?	<div> <div>XXX</div> <div>0=None</div> <div>99=DK</div> </div> <div>IF NONE, GO TO Q.4A</div>
Q.3C	How much of this amount approximately was for INFORMAL cash payments and gifts in kind?	<div> <div>XXX</div> <div>0=None</div> <div>99=DK</div> </div>
Q.3D	Was it necessary to TAKE OR BORROW cash from family, friends, bank, via credit card or sell assets to cover these formal and informal payments for HOSPITAL services that you used?	<div> <div>1 = YES</div> <div>0 = NO</div> <div>99=DK</div> </div> <div>IF NO/DK, GO TO Q.4A</div>
Q.3E	How much IN TOTAL was it necessary to take or borrow?	<div> <div>XXX</div> <div>99=DK</div> </div>
Q.4A	Are you overall satisfied with the QUALITY of hospital services that you used during the last 12 months – yes, no, somewhat?	<div> <div>2 = YES</div> <div>1 = SOMEWHAT</div> <div>0 = NO</div> <div>99=DK</div> </div>
Q.4B	Are you overall satisfied with the ACCESS to hospital services that you used during the last 12 months – yes, no, somewhat?	<div> <div>2 = YES</div> <div>1 = SOMEWHAT</div> <div>0 = NO</div> <div>99=DK</div> </div>
Q.4C	During the last 12 months, how many times have you been referred to a hospital but NOT GONE AT ALL because you could not afford to pay either for the hospital service or for the transportation/travel?	<div> <div>TIMES</div> <div>99=DK</div> </div>
Q.4D	Have YOU been ever hospitalised (placed in a hospital), including day surgeries or day treatments?	<div> <div>1 = YES</div> <div>0 = NO</div> <div>99=DK</div> </div>

PART 3: ATTITUDE TOWARDS INFORMAL PATIENT PAYMENTS

The following questions concern your attitude towards INFORMAL cash payments and gifts in kind to physicians, medical staff or other personnel in health care facilities. Your personal opinion is very important, no matter whether you used or not medical services. There are no wrong or right answers.

Q.5A	What is your attitude towards INFORMAL CASH PAYMENTS to physicians, medical staff or other personnel in health care facilities – positive, negative or indifferent?	<input type="text"/> 2 = POSITIVE 1 = INDIFFERENT 0 = NEGATIVE 99=DK
Q.5B	What is your attitude towards GIVING GIFTS IN KIND to physicians, medical staff or other personnel in health care facilities - positive, negative or indifferent?	<input type="text"/> 2 = POSITIVE 1 = INDIFFERENT 0 = NEGATIVE 99=DK
Q.6A	Have you been ever PERSONALLY ASKED by physicians, medical staff or other personnel in health care facilities to pay informally in cash or to give a gift in kind?	<input type="text"/> 1 = YES 0 = NO 99= DK
Q.7A	Have you ever personally paid INFORMALLY IN CASH to physicians, medical staff or other personnel in health care facilities?	<input type="text"/> 1 = YES 0 = NO 99= DK
Q.7B	Have you ever personally given any GIFT IN KIND to physicians, medical staff or other personnel in health care facilities?	<input type="text"/> 1 = YES 0 = NO 99= DK
Do the following statements apply to YOU PERSONALLY?		
Q.8A	I will feel UNCOMFORTABLE if I leave the physician's office without a gratitude cash payment or gift in kind.	<input type="text"/> 2 = YES 1 = SOMEWHAT 0 = NO 99= DK
Q.8B	I would RECOGNISE the hint of physicians or medical staff for an informal cash payment or a gift in kind.	<input type="text"/> 2 = YES 1 = SOMEWHAT 0 = NO 99= DK
Q.8C	I will REFUSE to pay if a physician or medical staff ask me to pay informally for a medical service.	<input type="text"/> 2 = YES 1 = SOMEWHAT 0 = NO 99= DK
Q.8D	I will PREFER to use private medical services if I have to pay informally for public medical services.	<input type="text"/> 2 = YES 1 = SOMEWHAT 0 = NO 99= DK
Q.8E	If I have SERIOUS PROBLEMS with my health, I will be ready to pay as much as I have in order to get better medical services.	<input type="text"/> 2 = YES 1 = SOMEWHAT 0 = NO 99= DK

Do you AGREE with the following statements?		<input type="text"/> 2 = YES 1 = SOMEWHAT 0 = NO 99= DK
Q.9A	Informal CASH payments to physicians and medical staff are similar to corruption.	
Q.9B	Gifts IN KIND to physicians and medical staff are similar to corruption.	<input type="text"/> 2 = YES 1 = SOMEWHAT 0 = NO 99= DK
Q.9C	Informal CASH payments to physicians and medical staff are an expression of gratitude.	<input type="text"/> 2 = YES 1 = SOMEWHAT 0 = NO 99= DK
Q.9D	Gifts IN KIND to physicians and medical staff are an expression of gratitude.	<input type="text"/> 2 = YES 1 = SOMEWHAT 0 = NO 99= DK
Q.9E	Informal cash payments and gifts in kind to physicians and medical staff are INEVITABLE because of the low funding of the health care sector.	<input type="text"/> 2 = YES 1 = SOMEWHAT 0 = NO 99= DK
Q.9F	Cash or gifts in kind, given informally to physicians and medical staff, should be ERADICATED.	<input type="text"/> 2 = YES 1 = SOMEWHAT 0 = NO 99= DK
Q.10A	Do you know the size of the official fees for medical services of PHYSICIANS (including any kind of specialists) BEFORE you use such services – always, sometimes, never?	<input type="text"/> 2 = ALWAYS 1 = SOMETIMES 0 = NEVER 99= DK
Q.10B	Do you know the size of the official fees for HOSPITAL services related to hospital admissions (staying in hospital) BEFORE you use such services – always, sometimes, never?	<input type="text"/> 2 = ALWAYS 1 = SOMETIMES 0 = NEVER 99= DK
Q.10C	Do you know where to COMPLAIN if physicians, medical staff or other personnel in health care facilities ask you to pay informally for a medical service?	<input type="text"/> 1 = YES 0 = NO 99= DK

PART 4: PREFERENCES FOR PHYSICIAN'S SERVICES

This part of the questionnaire concerns YOUR PREFERENCES regarding physician's services. There are no right or wrong answers. The questions ask about your personal opinion.

SHOW CARD 1.

The card presents a list of seven characteristics of physician's services. By physician, we mean here any kind of medical specialist.

Please, arrange these characteristics according to their importance TO YOU in case you need to select a physician for a medical consultation due to a MAJOR HEALTH PROBLEM – this means unfamiliar symptoms that cause discomfort or pain, and prevent you from usual activities.

Please rank with 1 the MOST IMPORTANT characteristics to you, with 2 the second most important and so on till 7, where 7 means least important. Please, do not repeat numbers.

FILL IN THE RANKS FROM 1 TO 7 STATED BY THE RESPONDENT.	
RANKS SHOULD NOT REPEAT.	
Q.11A	MEDICAL EQUIPMENT AT THE PHYSICIAN'S OFFICE (MODERN / OUTDATED)
Q.11B	REPUTATION AND SKILLS OF THE PHYSICIAN (KNOWN TO BE GOOD / UNKNOWN)
Q.11C	CONDITION OF THE PHYSICIAN'S OFFICE (GOOD CONDITION - RENOVATED / BAD CONDITIONS)
Q.11D	ATTITUDE OF THE STAFF (INCL. THE PHYSICIAN) (POLITE / IMPOLITE)
Q.11E	TRAVEL TIME TO THE PHYSICIAN'S OFFICE (FROM PATIENT'S HOME TO THE OFFICE)
Q.11F	WAITING TIME IN FRONT OF THE PHYSICIAN'S OFFICE (IN THE WAITING ROOM OR IN THE CORRIDOR)
Q.11G	AMOUNT OF MONEY PAID BY THE PATIENT (SIZE OF THE VISIT FEE)

PART 5: CHOICE OF PHYSICIAN

SHOW CARD 2A.

The characteristics of physician's services that you just ranked are used here to describe two physician's profiles. As before, by medical physician, we mean here any kind of medical specialist.

Let us assume that these are the ONLY physician's characteristics that you know. Let us also assume that you experience a major health problem which makes you concerned. Because of this problem, you HAVE DECIDED to visit a physician but you can/may choose only between these two physicians based on the information on the card.

Which of these two physicians would you choose?

REPEAT THE LAST QUESTION SHOWING CARD 2B TO CARD 2H (ONE CARD AT A TIME).

Q.12A	<table><tr><td></td><td>PHYSICIAN A</td><td>PHYSICIAN B</td></tr><tr><td>MEDICAL EQUIPMENT</td><td>MODERN</td><td>OUTDATED</td></tr><tr><td>PHYSICIAN'S REPUTATION AND SKILLS</td><td>UNKNOWN</td><td>KNOWN TO BE GOOD</td></tr><tr><td>CONDITION OF THE OFFICE</td><td>RENOVATED</td><td>RENOVATED</td></tr><tr><td>ATTITUDE OF THE STAFF</td><td>IMPOLITE</td><td>IMPOLITE</td></tr><tr><td>TRAVEL TIME TO THE OFFICE</td><td>60 MIN</td><td>15 MIN</td></tr><tr><td>WAITING IN FRONT OF THE OFFICE</td><td>10 MIN</td><td>45 MIN</td></tr><tr><td>PATIENT VISIT FEE</td><td>5,- EURO</td><td>5,- EURO</td></tr></table>		PHYSICIAN A	PHYSICIAN B	MEDICAL EQUIPMENT	MODERN	OUTDATED	PHYSICIAN'S REPUTATION AND SKILLS	UNKNOWN	KNOWN TO BE GOOD	CONDITION OF THE OFFICE	RENOVATED	RENOVATED	ATTITUDE OF THE STAFF	IMPOLITE	IMPOLITE	TRAVEL TIME TO THE OFFICE	60 MIN	15 MIN	WAITING IN FRONT OF THE OFFICE	10 MIN	45 MIN	PATIENT VISIT FEE	5,- EURO	5,- EURO	CARD 2A <div>0 = A 1 = B</div>
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MEDICAL EQUIPMENT	MODERN	OUTDATED																								
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CONDITION OF THE OFFICE	RENOVATED	RENOVATED																								
ATTITUDE OF THE STAFF	IMPOLITE	IMPOLITE																								
TRAVEL TIME TO THE OFFICE	60 MIN	15 MIN																								
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PATIENT VISIT FEE	5,- EURO	5,- EURO																								
Q.12B	<table><tr><td></td><td>PHYSICIAN C</td><td>PHYSICIAN D</td></tr><tr><td>MEDICAL EQUIPMENT</td><td>OUTDATED</td><td>MODERN</td></tr><tr><td>PHYSICIAN'S REPUTATION AND SKILLS</td><td>KNOWN TO BE GOOD</td><td>UNKNOWN</td></tr><tr><td>CONDITION OF THE OFFICE</td><td>BAD CONDITIONS</td><td>RENOVATED</td></tr><tr><td>ATTITUDE OF THE STAFF</td><td>POLITE</td><td>IMPOLITE</td></tr><tr><td>TRAVEL TIME TO THE OFFICE</td><td>15 MIN</td><td>60 MIN</td></tr><tr><td>WAITING IN FRONT OF THE OFFICE</td><td>10 MIN</td><td>10 MIN</td></tr><tr><td>PATIENT VISIT FEE</td><td>10,- EURO</td><td>5,- EURO</td></tr></table>		PHYSICIAN C	PHYSICIAN D	MEDICAL EQUIPMENT	OUTDATED	MODERN	PHYSICIAN'S REPUTATION AND SKILLS	KNOWN TO BE GOOD	UNKNOWN	CONDITION OF THE OFFICE	BAD CONDITIONS	RENOVATED	ATTITUDE OF THE STAFF	POLITE	IMPOLITE	TRAVEL TIME TO THE OFFICE	15 MIN	60 MIN	WAITING IN FRONT OF THE OFFICE	10 MIN	10 MIN	PATIENT VISIT FEE	10,- EURO	5,- EURO	CARD 2B <div>0 = C 1 = D</div>
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WAITING IN FRONT OF THE OFFICE	10 MIN	10 MIN																								
PATIENT VISIT FEE	10,- EURO	5,- EURO																								
Q.12C	<table><tr><td></td><td>PHYSICIAN A</td><td>PHYSICIAN B</td></tr><tr><td>MEDICAL EQUIPMENT</td><td>MODERN</td><td>MODERN</td></tr><tr><td>PHYSICIAN'S REPUTATION AND SKILLS</td><td>UNKNOWN</td><td>UNKNOWN</td></tr><tr><td>CONDITION OF THE OFFICE</td><td>RENOVATED</td><td>BAD CONDITIONS</td></tr><tr><td>ATTITUDE OF THE STAFF</td><td>IMPOLITE</td><td>IMPOLITE</td></tr><tr><td>TRAVEL TIME TO THE OFFICE</td><td>60 MIN</td><td>15 MIN</td></tr><tr><td>WAITING IN FRONT OF THE OFFICE</td><td>10 MIN</td><td>10 MIN</td></tr><tr><td>PATIENT VISIT FEE</td><td>5,- EURO</td><td>5,- EURO</td></tr></table>		PHYSICIAN A	PHYSICIAN B	MEDICAL EQUIPMENT	MODERN	MODERN	PHYSICIAN'S REPUTATION AND SKILLS	UNKNOWN	UNKNOWN	CONDITION OF THE OFFICE	RENOVATED	BAD CONDITIONS	ATTITUDE OF THE STAFF	IMPOLITE	IMPOLITE	TRAVEL TIME TO THE OFFICE	60 MIN	15 MIN	WAITING IN FRONT OF THE OFFICE	10 MIN	10 MIN	PATIENT VISIT FEE	5,- EURO	5,- EURO	CARD 2C <div>0 = A 1 = B</div>
	PHYSICIAN A	PHYSICIAN B																								
MEDICAL EQUIPMENT	MODERN	MODERN																								
PHYSICIAN'S REPUTATION AND SKILLS	UNKNOWN	UNKNOWN																								
CONDITION OF THE OFFICE	RENOVATED	BAD CONDITIONS																								
ATTITUDE OF THE STAFF	IMPOLITE	IMPOLITE																								
TRAVEL TIME TO THE OFFICE	60 MIN	15 MIN																								
WAITING IN FRONT OF THE OFFICE	10 MIN	10 MIN																								
PATIENT VISIT FEE	5,- EURO	5,- EURO																								

Q.12D

CARD 2D

0 = C
1 = D

MEDICAL EQUIPMENT	PHYSICIAN C	PHYSICIAN D
PHYSICIAN'S REPUTATION AND SKILLS	MODERN KNOWN TO BE GOOD	MODERN UNKNOWN
CONDITION OF THE OFFICE	BAD CONDITIONS	RENOVATED
ATTITUDE OF THE STAFF	POLITE	IMPOLITE
TRAVEL TIME TO THE OFFICE	60 MIN	60 MIN
WAITING IN FRONT OF THE OFFICE	45 MIN	10 MIN
PATIENT VISIT FEE	5,- EURO	5,- EURO

Q.12E

CARD 2E

0 = A
1 = B

MEDICAL EQUIPMENT	PHYSICIAN A	PHYSICIAN B
PHYSICIAN'S REPUTATION AND SKILLS	MODERN UNKNOWN KNOWN TO BE GOOD	MODERN RENOVATED
CONDITION OF THE OFFICE	RENOVATED	RENOVATED
ATTITUDE OF THE STAFF	IMPOLITE	IMPOLITE
TRAVEL TIME TO THE OFFICE	60 MIN	60 MIN
WAITING IN FRONT OF THE OFFICE	10 MIN	10 MIN
PATIENT VISIT FEE	5,- EURO	10,- EURO

Q.12F

CARD 2F

0 = C
1 = D

MEDICAL EQUIPMENT	PHYSICIAN C	PHYSICIAN D
PHYSICIAN'S REPUTATION AND SKILLS	MODERN UNKNOWN RENOVATED	MODERN UNKNOWN RENOVATED
CONDITION OF THE OFFICE	POLITE	IMPOLITE
ATTITUDE OF THE STAFF	POLITE	IMPOLITE
TRAVEL TIME TO THE OFFICE	15 MIN	60 MIN
WAITING IN FRONT OF THE OFFICE	45 MIN	10 MIN
PATIENT VISIT FEE	10,- EURO	5,- EURO

Q.12G

CARD 2G

0 = A
1 = B

MEDICAL EQUIPMENT	PHYSICIAN A	PHYSICIAN B
PHYSICIAN'S REPUTATION AND SKILLS	MODERN UNKNOWN RENOVATED	OUTDATED UNKNOWN RENOVATED
CONDITION OF THE OFFICE	RENOVATED	RENOVATED
ATTITUDE OF THE STAFF	IMPOLITE	POLITE
TRAVEL TIME TO THE OFFICE	60 MIN	60 MIN
WAITING IN FRONT OF THE OFFICE	10 MIN	10 MIN
PATIENT VISIT FEE	5,- EURO	5,- EURO

Q.12H

CARD 2H

0 = C
1 = D

MEDICAL EQUIPMENT	PHYSICIAN C	PHYSICIAN D
PHYSICIAN'S REPUTATION AND SKILLS	OUTDATED UNKNOWN BAD CONDITIONS	MODERN UNKNOWN RENOVATED
CONDITION OF THE OFFICE	BAD CONDITIONS	RENOVATED
ATTITUDE OF THE STAFF	IMPOLITE	IMPOLITE
TRAVEL TIME TO THE OFFICE	60 MIN	60 MIN
WAITING IN FRONT OF THE OFFICE	45 MIN	10 MIN
PATIENT VISIT FEE	10,- EURO	5,- EURO

PART 6: PREFERENCES FOR HOSPITAL SERVICES

This part of the questionnaire concerns YOUR PREFERENCES regarding hospital services. There are no right or wrong answers. The questions ask about your personal opinion.

SHOW CARD 3.

The card presents a list of seven characteristics of hospital services.

Please, arrange these characteristics according to their importance TO YOU in case you need to select a hospital for yourself for a PLANNED SURGERY, which will require a 5-days hospitalisation and the illness is not life-threatening.

Please rank with 1 the MOST IMPORTANT characteristics to you, with 2 the second most important and so on till 7, where 7 means least important. Please, do not repeat numbers.

Q.13A	MEDICAL EQUIPMENT AT THE HOSPITAL (MODERN / OUTDATED)		FILL IN THE RANKS FROM 1 TO 7 STATED BY THE RESPONDENT. RANKS SHOULD NOT REPEAT.
Q.13B	REPUTATION AND SKILLS OF THE SURGEON (KNOWN TO BE GOOD / UNKNOWN)		
Q.13C	CONDITION OF THE HOSPITAL INTERIOR (GOOD CONDITION - RENOVATED / BAD CONDITIONS)		
Q.13D	ATTITUDE OF THE STAFF (INCL. THE PHYSICIAN) (POLITE / IMPOLITE)		
Q.13E	TRAVEL TIME TO THE HOSPITAL (FROM PATIENT'S HOME TO THE HOSPITAL)		
Q.13F	WAITING TIME FOR THE OPERATION (FROM THE REFERRAL TO THE ADMISSION)		
Q.13G	AMOUNT OF MONEY PAID BY THE PATIENT (SIZE OF THE TOTAL HOSPITAL FEE INCLUDING ALL TYPES OF FEES CHARGED BY THE HOSPITAL)		

PART 7: CHOICE OF HOSPITAL**SHOW CARD 4A.**

The characteristics of hospital services that you just ranked are used here to describe two hospital profiles.

Let us assume that these are the **ONLY** hospital characteristics that you know. Let us also assume that you **MUST UNDERGO** a planned surgery in a hospital, which will require a 5-days hospitalisation and the illness is not life-threatening. You can/may choose only between these two hospitals based on the information on the card.

The patient hospitalisation fee includes all types of fees charged by the hospital (for example, lab test, diagnostics, medical consumables, pharmaceuticals, TV, separate room). Fees are not necessarily dependent on the medical service costs since a part of the costs is covered by public funds.

Which of these two hospitals would you choose?

REPEAT THE LAST QUESTION SHOWING: CARD 4B to CARD 4H (ONE CARD AT A TIME).

Q.14A

	HOSPITAL A	HOSPITAL B
MEDICAL EQUIPMENT	MODERN	OUTDATED
SURGEON'S REPUTATION AND SKILLS	UNKNOWN	KNOWN TO BE GOOD
CONDITION OF THE INTERIOR	RENOVATED	RENOVATED
ATTITUDE OF THE STAFF	IMPOLITE	IMPOLITE
TRAVEL TIME TO THE HOSPITAL	3 HOURS	1 HOUR
WAITING TIME FOR THE OPERATION	1 MONTH	4 MONTHS
PATIENT HOSPITALISATION FEE	100.- EURO	100.- EURO

CARD 4A

0 = A
1 = B

Q.14B

	HOSPITAL C	HOSPITAL D
MEDICAL EQUIPMENT	OUTDATED	MODERN
SURGEON'S REPUTATION AND SKILLS	KNOWN TO BE GOOD	UNKNOWN
CONDITION OF THE INTERIOR	BAD CONDITIONS	RENOVATED
ATTITUDE OF THE STAFF	POLITE	IMPOLITE
TRAVEL TIME TO THE HOSPITAL	1 HOUR	3 HOURS
WAITING TIME FOR THE OPERATION	1 MONTH	1 MONTH
PATIENT HOSPITALISATION FEE	200.- EURO	100.- EURO

CARD 4B

0 = C
1 = D

Q.14C

	HOSPITAL A	HOSPITAL B
MEDICAL EQUIPMENT	MODERN	MODERN
SURGEON'S REPUTATION AND SKILLS	UNKNOWN	UNKNOWN
CONDITION OF THE INTERIOR	RENOVATED	BAD CONDITIONS
ATTITUDE OF THE STAFF	IMPOLITE	IMPOLITE
TRAVEL TIME TO THE HOSPITAL	3 HOURS	1 HOUR
WAITING TIME FOR THE OPERATION	1 MONTH	1 MONTH
PATIENT HOSPITALISATION FEE	100.- EURO	100.- EURO

CARD 4C

0 = A
1 = B

Q.14D

	HOSPITAL C	HOSPITAL D
MEDICAL EQUIPMENT	MODERN	MODERN
SURGEON'S REPUTATION AND SKILLS	KNOWN TO BE GOOD	UNKNOWN
CONDITION OF THE INTERIOR	BAD CONDITIONS	RENOVATED
ATTITUDE OF THE STAFF	POLITE	IMPOLITE
TRAVEL TIME TO THE HOSPITAL	3 HOURS	3 HOURS
WAITING TIME FOR THE OPERATION	4 MONTHS	1 MONTH
PATIENT HOSPITALISATION FEE	100.- EURO	100.- EURO

CARD 4D

0 = C
1 = D

Q.14E

	HOSPITAL A	HOSPITAL B
MEDICAL EQUIPMENT	MODERN	MODERN
SURGEON'S REPUTATION AND SKILLS	UNKNOWN	KNOWN TO BE GOOD
CONDITION OF THE INTERIOR	RENOVATED	RENOVATED
ATTITUDE OF THE STAFF	IMPOLITE	IMPOLITE
TRAVEL TIME TO THE HOSPITAL	3 HOURS	3 HOURS
WAITING TIME FOR THE OPERATION	1 MONTH	1 MONTH
PATIENT HOSPITALISATION FEE	100.- EURO	200.- EURO

CARD 4E

0 = A
1 = B

Q.14F

	HOSPITAL C	HOSPITAL D
MEDICAL EQUIPMENT	MODERN	MODERN
SURGEON'S REPUTATION AND SKILLS	UNKNOWN	UNKNOWN
CONDITION OF THE INTERIOR	RENOVATED	RENOVATED
ATTITUDE OF THE STAFF	POLITE	IMPOLITE
TRAVEL TIME TO THE HOSPITAL	1 HOUR	3 HOURS
WAITING TIME FOR THE OPERATION	4 MONTHS	1 MONTH
PATIENT HOSPITALISATION FEE	200.- EURO	100.- EURO

CARD 4F

0 = C
1 = D

Q.14G

	HOSPITAL A	HOSPITAL B
MEDICAL EQUIPMENT	MODERN	OUTDATED
SURGEON'S REPUTATION AND SKILLS	UNKNOWN	UNKNOWN
CONDITION OF THE INTERIOR	RENOVATED	RENOVATED
ATTITUDE OF THE STAFF	IMPOLITE	POLITE
TRAVEL TIME TO THE HOSPITAL	3 HOURS	3 HOURS
WAITING TIME FOR THE OPERATION	1 MONTH	1 MONTH
PATIENT HOSPITALISATION FEE	100.- EURO	100.- EURO

CARD 4G

0 = A
1 = B

Q.14H

	HOSPITAL C	HOSPITAL D
MEDICAL EQUIPMENT	OUTDATED	MODERN
SURGEON'S REPUTATION AND SKILLS	UNKNOWN	UNKNOWN
CONDITION OF THE INTERIOR	BAD CONDITIONS	RENOVATED
ATTITUDE OF THE STAFF	IMPOLITE	IMPOLITE
TRAVEL TIME TO THE HOSPITAL	3 HOURS	3 HOURS
WAITING TIME FOR THE OPERATION	4 MONTHS	1 MONTH
PATIENT HOSPITALISATION FEE	200.- EURO	100.- EURO

CARD 4H

0 = C
1 = D

PART 8: WILLINGNESS TO PAY FOR MEDICAL SERVICES

Next questions concern your **WILLINGNESS AND ABILITY** to pay for medical services provided by the state or included in the social health insurance package.

Imagine that you could obtain these services with **GOOD QUALITY** and **QUICK ACCESS** if you pay an **OFFICIAL FEE** to the health care facility (e.g. polyclinic, clinic or hospital).

SHOW CARD 5.

This card presents the meaning of good quality and quick access.

Good quality would mean:

- Modern medical equipment
- Renovated health care facility
- Polite staff with good reputation and skills

Quick access would mean:

- Max. 30 min travelling to the health care facility
- Max. 10 min waiting in front of the physician office
- Max. 1 month waiting for a planned surgery

At the bottom of the card, you can also see possible fees intervals regarding physician's and hospital services. Higher fee would mean better quality and quicker access. Fees are fixed prices and are not necessarily dependent on the service costs, since a part of the costs are covered by public funds.

Q.16A	In case you have to undergo a PLANNED SURGERY (for example, a 5-day hospitalisation and no life-threatening illness), will you be willing to pay an official fee for this HOSPITALISATION in order to obtain services with good quality and quick access as described in the card?	<div><div>1 = YES 0 = NO 99= DK</div><div>IF YES, GO TO Q.16C</div></div>
Q.16B	What is the REASON for your unwillingness to pay – unable to pay, object to pay, or both?	<div><div>2 = BOTH 1 = OBJECT 0 = UNABLE 99= DK</div><div>GO TO PART 9.</div></div>
Q. 16C	Considering the fee intervals regarding hospital services shown on the card, how much exactly are you WILLING AND ABLE to pay for such hospitalisation (including all types of fees charged by the hospital) in order to obtain services with good quality and quick access? IF THE RESPONDENT STATES AN INTERVAL, ASK FOR AN EXACT AMOUNT. IF THE RESPONDENT IS NOT ABLE TO INDICATE AN EXACT AMOUNT, FILL IN THE MIDPOINT OF THE INTERVAL. MIDPOINTS: <ul style="list-style-type: none">▪ LESS THAN 100.- EURO (MIDPOINT 50 EURO)▪ FROM 100.- TO 200.- EURO (MIDPOINT 150 EURO)▪ MORE THAN 200.- EURO (MIDPOINT 250 EURO)	<div><div>XXX 99= DK</div></div>

Q.15A	In case you experience a MAJOR HEALTH PROBLEM (unfamiliar symptoms that make you concerned), will you be willing to pay an official fee for a consultation and examination by a MEDICAL SPECIALIST in order to obtain services with good quality and quick access as described in the card?	<div><div>1 = YES 0 = NO 99= DK</div><div>IF YES, GO TO Q.15C</div></div>
Q.15B	What is the REASON for your unwillingness to pay – unable to pay, object to pay, or both?	<div><div>2 = BOTH 1 = OBJECT 0 = UNABLE 99= DK</div><div>GO TO Q.16A</div></div>
Q.15C	Considering the fee intervals regarding physician's services shown on the card, how much exactly are you WILLING AND ABLE to pay for such visit in order to obtain services with good quality and quick access? IF THE RESPONDENT STATES AN INTERVAL, ASK FOR AN EXACT AMOUNT. IF THE RESPONDENT IS NOT ABLE TO INDICATE AN EXACT AMOUNT, FILL IN THE MIDPOINT OF THE INTERVAL. MIDPOINTS: <ul style="list-style-type: none">▪ LESS THAN 5.- EURO (MIDPOINT 2.50 EURO)▪ FROM 5.- TO 10.- EURO (MIDPOINT 7.50 EURO)▪ MORE THAN 10.- EURO (MIDPOINT 12.50 EURO)	<div><div>XXX 99= DK</div></div>

PART 9: SOCIO-DEMOGRAPHIC CHARACTERISTICS

Next questions concern your social and demographic characteristics. The information that is required will not be related to your identity. The data are only necessary in order to analyse the results of this survey in a statistical way.

Q.17A	In which YEAR were you born?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
Q.17B	FILL IN THE RESPONDENT'S GENDER.	<input type="text"/>	1 = FEMALE 0 = MALE			
Q.17C	FILL IN THE TYPE OF RESPONDENT'S RESIDENCE PLACE.	<input type="text"/>	4 = THE CAPITAL 3 = CITY (MORE THAN 500,000 INHABITANTS) 2 = CITY (200,000 – 500,000 INHABITANTS) 1 = TOWN (UP TO 200,000 INHABITANTS) 0 = VILLAGE			
Q.17D	SHOW CARD 6. What is the level of your current EDUCATION or current study?	<input type="text"/>	5 = TERTIARY EDUCATION (ISCED 5-6) 4 = POST-SECONDARY NON-TERTIARY EDUCATION (ISCED 4) 3 = UPPER-SECONDARY EDUCATION (ISCED 3) 2 = LOWER-SECONDARY OR SECOND STAGE OF BASIC EDUCATION (ISCED 2) 1 = PRIMARY OR FIRST STAGE OF BASIC EDUCATION (ISCED 1) 0 = BASIC COMPLETED PRIMARY EDUCATION (ISCED 0)			
Q.17E	SHOW CARD 7. What is your primary OCCUPATION (activities) at present?	<input type="text"/>	8 = STUDENT (IN EDUCATION) 7 = EMPLOYEE (IN PAID JOB) 6 = OWN/FAMILY PRIVATE BUSINESS (INCLUDING SELF-EMPLOYED) 5 = UNEMPLOYED (JOB-SEEKING) 4 = NOT EMPLOYED (NOT SEEKING FOR A JOB, INCL. HOUSEWIFE) 3 = PENSIONER (BECAUSE OF AGE) 2 = PENSIONER (BECAUSE OF ILLNESS) 1 = FARMER/AGRICULTURER 0 = SOLDIER			

Q.17F	SHOW CARD 8. What is your MARITAL status at present?	<input type="text"/>	5 = NEVER MARRIED AND SINGLE 4 = LIVING WITH A PARTNER WITHOUT MARRIAGE 3 = MARRIED (LIVING TOGETHER) 2 = MARRIED (LIVING SEPARATELY) 1 = DIVORCED AND SINGLE AT PRESENT 0 = WIDOWER AND SINGLE AT PRESENT
Q.18A	SHOW CARD 9. How do you perceive your present HEALTH status?	<input type="text"/>	5 = PERFECT HEALTH 4 = VERY GOOD HEALTH 3 = GOOD HEALTH 2 = FAIR HEALTH 1 = BAD HEALTH 0 = VERY BAD HEALTH
Q.18B	During the last 12 months, did you need to use medical services FREQUENTLY due to a chronic disease or a major health problem?	<input type="text"/>	1 = YES 0 = NO
Q.18C	Have a physician told you that you have any of the following health PROBLEMS?	<input type="text"/>	1 = YES 0 = NO
Q.18D	Diabetes (increased sugar in the blood)	<input type="text"/>	1 = YES 0 = NO
Q.18E	Chronic heart disease or high arterial blood pressure	<input type="text"/>	1 = YES 0 = NO
Q.18F	Chronic lung, liver or kidney disease	<input type="text"/>	1 = YES 0 = NO
Q.18G	Stroke	<input type="text"/>	1 = YES 0 = NO
Q.18H	Infarct	<input type="text"/>	1 = YES 0 = NO
Q.18I	Other chronic or major health problems	<input type="text"/>	1 = YES 0 = NO
Q.19A	Do you have COMPULSORY social health insurance paid either by you or others?	<input type="text"/>	1 = YES 0 = NO
Q.19B	Do you have supplementary VOLUNTARY health insurance (or voluntary health account) paid either by you or others?	<input type="text"/>	1 = YES 0 = NO

Part 10: Household Characteristics and Household Income

The last set of questions concerns your household. Household is one person or a group of persons sharing a flat/house and having a common budget or common expenditure.

FAMILY MEMBERS LIVING TOGETHER ARE ONE HOUSEHOLD ONLY IF THEY ALSO HAVE A COMMON BUDGET OR COMMON EXPENDITURE. FAMILY MEMBERS WHO DO NOT LIVE TOGETHER ARE NOT ONE HOUSEHOLD.

Q.20A	How many PERSONS are there in your household (incl. you)?	<div>PERSONS</div> <div></div>
Q.20B	How many CHILDREN under the age of 18 are there in your household?	<div>CHILDREN</div> <div></div>
Q.20C	At present, how many persons in your household (incl. you) have a PAID WORK or RECEIVE money (for example, different kinds of social support, money from renting properties, etc)?	<div>PERSONS</div> <div></div>
Q.20D	At present, how many persons in your household (incl. you) have CHRONIC DISEASES or major health problems?	<div>PERSONS</div> <div></div>
Q.21A	<div>SHOW CARD 10.</div> <div>Please take a look at this card. Could you tell me which of the following categories best describes the NET AVERAGE HOUSEHOLD INCOME per month (i.e. after tax income) considering all household members and all sources (wages, social welfare, pensions, rents, fees, etc)?</div>	<div>17= MORE THAN 3000.- EURO 16= R- FROM 2001.- TO 3000.- EURO 15= O- FROM 1501.- TO 2000.- EURO 14= P- FROM 1001.- TO 1500.- EURO 13= N- FROM 751.- TO 1000.- EURO 12= M- FROM 601.- TO 750.- EURO 11= L- FROM 451.- TO 600.- EURO 10= K- FROM 301.- TO 450.- EURO 9= J- FROM 151.- TO 300.- EURO 8= I- FROM 76.- TO 150.- EURO 7= H- FROM 301.- TO 350.- EURO 6= G- FROM 251.- TO 300.- EURO 5= F- FROM 201.- TO 250.- EURO 4= E- FROM 151.- TO 200.- EURO 3= D- FROM 101.- TO 150.- EURO 2= C- FROM 76.- TO 100.- EURO 1= B- FROM 50.- TO 75.- EURO 0= A- LESS THAN 50.- EURO 99= DK</div>
Q.21B	<div>SHOW CARD 11.</div> <div>Which of the following is TRUE regarding your current household income?</div>	<div>4= ALLOWS TO BUILD SAVINGS 3= ALLOWS TO SAVE JUST A LITTLE 2= ONLY JUST MEETS THE EXPENSES 1= NOT SUFFICIENT / NEED TO USE SAVINGS 0= NOT REALLY SUFFICIENT / NEED TO BORROW 99= DK</div>

The last question concerns your PERCEPTIONS about the net monthly household income that would allow managing appropriately your current day-to-day household needs.

SHOW CARD 12.

Which net monthly household income (i.e. after tax income) would you in YOUR CIRCUMSTANCES say to be: Very good? Good? Sufficient? Insufficient? Bad? Very bad?

INSTRUCTION: PLEASE TRY TO AVOID "DON'T KNOW".

		FILL IN BELOW THE INCOME LEVELS STATED BY THE RESPONDENT:	
Q.22A	VERY GOOD MONTHLY HOUSEHOLD INCOME	<div>XXX 99= DK</div>	
Q.22B	GOOD MONTHLY HOUSEHOLD INCOME	<div>XXX 99= DK</div>	
Q.22C	SUFFICIENT MONTHLY HOUSEHOLD INCOME	<div>XXX 99= DK</div>	
Q.22D	INSUFFICIENT MONTHLY HOUSEHOLD INCOME	<div>XXX 99= DK</div>	
Q.22E	BAD MONTHLY HOUSEHOLD INCOME	<div>XXX 99= DK</div>	
Q.22F	VERY BAD MONTHLY HOUSEHOLD INCOME	<div>XXX 99= DK</div>	

This is the end of the questionnaire. Thank you for your participation!

END TIME (USE 24 HOURS CLOCK)

:

Summary

Samenvatting

Összefoglaló

Summary

In Hungary, out-of-pocket household expenditure on health care has increased during the last decades, and now it accounts for around 26% of the total health care expenditure. The major part of these payments is expenditures on pharmaceuticals and medical devices (75-80 percent), where co-payments are substantial and have long been applied. Regarding out-of-pocket patient payments for health care services, which is the focus of this dissertation, the extent of official co-payments is limited, and most of the services covered by the social health insurance is provided free of charge for consumers. However, patients are regularly paying for health care services through informal payment channels to the health care personnel, in the hope of getting better quality services.

In 2007, the government implemented a one-euro user fee for the use of health care services covered by the social health insurance, as one element of a reform package, which aimed at the decrease of the public deficit. According to the policy objectives, user fees were expected to control the utilization of health care services, and diminish informal payments. However, the implementation of the fees met with strong political opposition and unpopularity among the public. Finally, this led to the abolishment of the fees one year after their implementation, in April 2008, as a result of a population referendum initiated by the opposition party in parliament. The implementation of user fees for health care services has proved to be a rather sensitive political issue, not only in Hungary but in other Central and Eastern (CEE) countries as well. Similarly to Hungary, in the Czech Republic and Slovakia user fees were revoked a few years after their implementation due to the political resistance in both countries. Thus, policy makers beware of the (re)implementation of user fees, to avoid becoming unpopular among the public.

Given the complexity and sensitivity of the issue of patient payments for health care services in Hungary, the two main aims of the dissertations are (1) to show the lessons to be learned from the experience with the implementation of user charges in 2007; (2) to identify challenges and perspectives for patient payments in the future, focusing on the public attitudes toward patient payments (formal and informal), as well as the willingness of health care consumers to pay official fees for health care services. The thesis also pays special attention on the relationship between formal and informal payments. We examine the effect of the introduction of user fees on the probability of paying informally, as well as the link between the willingness to pay formally and past informal payments.

The dissertation is divided into three main parts, each containing two chapters. The first part focuses on the past experiences with the implementation of user fees in 2007. In particular, Chapter 1 focuses on the impact of user fees on equity and Chapter 2 analyzes the effect of these fees on informal payments of health care consumers. The second part (Chapter 4 and 5) considers the attitude of the population towards

formal and informal patient payments. The third part (Chapter 6 and 7) elicits the willingness of Hungarian health care consumers to pay formal fees for health care services as well as consumer preferences for different services attributes, using stated preference methods, namely contingent valuation and discrete choice experiment.

To study the effects of the implementation of user fees we apply secondary data analysis. In Chapter 2, we analyze expenditure data from the Household Budget Survey carried out by the Central Statistical Office of Hungary for a four year period (2005-2008). To study the effect of the introduction of user fees on informal payments in Chapter 3, we use cross-sectional data on about 2500 respondents collected in April 2007, two months after the implementation of user fees. To study attitudes as well as willingness to pay, we have collected (1) qualitative data in 2009 via focus group discussions and in-depth interviews as well as (2) quantitative data from a country representative sample among 1037 respondents collected in 2010. Below, we present the findings of the Chapters separately.

In Chapter 2, we have presented the scope and magnitude of out-of-pocket payments in Hungary, separately for expenditures on pharmaceuticals, formal and informal payments for health care services. We have also examined the changes in the progressivity of these payments during a four year period (2005-2008), using Kakwani indexes as a measure of progressivity.

Our results confirm the conclusions of previous studies, which found that out-of-pocket payments are a regressive means of raising health care revenues. Out-of-pocket payments on health care are highly regressive in Hungary with a Kakwani index of -0.22. In particular, households from the lowest income quintile spend an about three times larger share of their income on out-of-pocket payments (6-7 percent of income) compared to households in the highest income quintile, who spent 2 percent of their income on health care. Expenditures on pharmaceuticals and medical devices are the most regressive types of expenditures (Kakwani index -0.23/-0.24), and at the same time they represent a major part of the total household expenditure on health care (78-85 percent of total out-of-pocket household expenditure on health care). Informal payments are also found to be regressive, which implies that these payments impose a relatively higher burden on worse-off households. At the same time, expenditures on formal payments for health care services are the most proportional to income, as we can assume that households with higher income use proportionally more private services.

The burden of formal payments significantly increased after the implementation of user fees. Moreover, expenditures on formal payments became regressive (Kakwani index -0.1). This is in accordance with the findings of previous studies that health care reforms, which increase the role of out-of-pocket payments in health care financing, lead to a relatively greater burden falling on the low-income groups. In parallel, we observe a decrease in the expenditure on informal payments, which became less

regressive as well, i.e. the decrease was higher in the lower-income households. This finding may suggest that worse-off households tried to compensate the increasing burden of formal co-payments with a decrease in their expenditure on informal payments. However, due to the lack of utilization data in the Household Budget Survey, we cannot really claim the causality of this association.

In **Chapter 3** we have focused on the effect of the introduction of user fees in 2007 on informal payments. As mentioned before, in CEE countries, where informal payments are widespread, the introduction of user fees is also motivated by their potential to eradicate or “formalize” informal payments. However, there is no evidence in the literature, which clearly supports this expectation. In Hungary, one of the main policy objectives of the introduction of user fees in 2007 was also to diminish informal payments, besides the objective to control the utilization of the services. In Chapter 3, we have addressed this issue. First, we have presented the pattern of informal payments in primary, out-patient specialist and in in-patient care in the period before and shortly after user fees for health care services were introduced. We have also examined the changes in the probability of paying informally in the short run using probit regression analysis. For the analysis we have used data on informal payments for the last visit to physician/last admission to hospital, collected in April 2007, two months after the implementation of user fees.

In accordance with the literature on informal payments in Hungary, we have found that Hungarian patients pay informally for medical services on a routine basis. According to our results, for GP care, 9 percent of the patients paid informally during their last visit (2 euro on average), 14 percent paid informally for specialist care (35 euro on average), and 50 percent paid informally for hospitalization (58 euro on average). We have not found significant changes in the probability of paying informally for the last physician visit/hospitalization in the short run after the implementation of user fees, except for elderly patients for hospitalizations, where we observe a decrease in the probability of paying informally. This group is associated with lower household income in Hungary, thus, they might be less able to pay for the double burden.

Our findings suggest that formal payments are not substitutes of informal payments, at least in a short run, but these payments rather co-exist and complement each other. However, it is probable, that a longer period is needed to perceive changes in patients’ behavior regarding informal payments. Furthermore, we have to consider that neither the objectives, nor the beneficiaries of informal payments are the same as those of the user fees. It is quite probable that patients, who are able to pay, continue to pay informally directly to their physician, in the hope of getting extra services or more personal attention.

Chapter 4 has been focused on the attitude of health care stakeholders towards formal patient payments. In this chapter, we have combined qualitative and quantitative methods to reveal the experiences and expectations of health system stakeholders in Hungary related to user fees as well as their approval of such fees.

We have found that consumers do not support the stated policy objectives of the introduction of user fees in 2007, i.e. the decrease of unnecessary visits and the eradication of informal payments. A group of consumers (mostly pensioners and families with children who are the most frequent users of services), do not agree that a decrease in the utilization of services is essential in Hungary. Furthermore, health care consumers doubt that user fees in 2007 could substitute for informal payments, as neither the measure nor the objectives, nor the beneficiaries of informal payments were the same as those of user fees. The lack of support of the stated policy objectives might be one of the reasons why the fees were rejected by the population in the referendum.

We have also found that health care consumers are not against paying user fees. However, consumers would rather accept these fees if the revenues were reinvested in health care provisions to increase the quality of health care services. This attitude can be explained by the discontent of the population with the quality of health care services, also expressed during the focus group discussions carried out for this dissertation. Nevertheless, consumers noticed no improvement in service quality and found that the revenues were not reinvested into the improvement of the quality of service provision in 2007. This might also contribute to the rejection of these fees. Furthermore, consumers do not trust the government that such fees will be reinvested in service provision.

In Chapter 5, we have analyzed the attitudes and perceptions of health care consumers towards informal payments using data from a country-representative quantitative survey. We have combined cluster analysis with multinomial logistic regression to identify the main perception groups of informal payments.

We have identified three main different attitudes towards informal payments. Those who accept informal payments (either young or elderly people, living in the capital) consider these payments as an expression of gratitude and perceive them as inevitable due to the low funding of the health care system. Those who doubt about informal payments (respondents outside the capital, with higher education and household income) also consider these payments inevitable, but perceive them as similar to corruption rather than gratitude, and would rather use private services to avoid these payments. We found that the opposition to informal payments (mostly among men from small households and with low income) could be explained by lower ability and willingness to pay.

Overall, Hungarian health care consumers tolerate informal payments as they consider these payments inevitable due to the lack of resources in the health care system. This perception is in accordance with the economic explanation of informal payments and supports the theory of Gaál and McKee (2004), who interpret informal payments as a reaction to the declining performance in the health care system²⁵. The positive attitude of consumers is enhanced by health care providers as well. According to the Ethical Codex of the Medical Chamber in Hungary, informal payments are legal and legitimate because of the low salary of physicians and dysfunctioning of the health care system. So far, national regulations have not explicitly forbidden informal patient payments either.

In Chapter 6, a contingent valuation method has been used to elicit information on the willingness of the Hungarian health care consumers to pay formal fees for health care services. Besides, we have also examined the relationship between willingness to pay formal fees and past informal payments.

Based on an earlier qualitative study (see Chapter 4), we expect that health care consumers are not against paying an extra contribution to the cost of health care services if these services are provided with good quality or access. In this chapter, we confirm this expectation. We have found that the majority of the Hungarian population is willing to pay official fees for health care services with certain service attributes. We have found that 66 percent of the respondents are willing to pay formal fees for specialist visits and 56 percent are willing to pay for planned hospitalizations, if these services are provided with certain quality and access attributes.

We have also found that the willingness to pay formal fees is positively associated with past informal payments. The probability that a respondent is willing to pay official charges for health care services is 22 percentage points higher for specialist examinations and 45 percentage points higher for a hospitalization if the respondent paid informally during the last 12 months. Furthermore, the results suggest that some population groups (e.g. elderly and respondents from the capital) might prefer to pay informally, as we have found that they are more likely to pay informally, but less likely to be willing to pay formal fees.

In Chapter 7, we have used data from a discrete choice experiment to elicit preferences of health care consumers about the choice of health care providers. We have examined the effect of the improvement of service attributes (quality, access, and price) on patients' choice, as well as the differences in preferences among different socio-demographic groups. We have also estimated the marginal willingness to pay for the improvement in attribute levels by calculating marginal rates of substitution.

25 See Gaál and McKee, 2004

The results of this chapter show that the choice of respondents from a village or the capital, with low education and bad health status are more sensitive to the changes in the price when choosing between health care providers. While for young respondents with higher education and higher household income, we observe higher marginal willingness to pay for service attributes. Regarding service attributes, we observe the highest marginal willingness to pay for the improvement of the skills and reputation of the physician, as well as the attitude of the health care personnel. This means that health care consumers value the quality attributes connected to the health care personnel the most. Medical equipments and the maintenance of the health care facility are also considered as important factors. However, waiting time in front of the office and travelling time to the health care facility are less likely to affect the choice of health care consumers. In other terms, consumers are ready to travel or wait more for the service provision in order to be treated by skilled and polite personnel.

To conclude, we can learn from previous experiences with user fees in 2007 that out-of-pocket payments are already relevant, and further, that an increase of co-payments may lead to greater burden falling into low-income groups. Thus, more attention should be paid to the protection of low-income households when implementing or extending patient charges, to avoid inequalities in access, which can lead to higher morbidity, as the health status of the Hungarian population is already lagging behind other European countries.

We have also shown that formal and informal payments are complements rather than substitutes as the beneficiary and objective of the two types of payments are different. It is quite probable that despite the formal charges, patients continue to pay informally directly to their physician as an expression of their gratitude or in the hope of getting extra services, better access or more personal attention. This is not surprising, as we have found that for consumers, physicians' competence, skills and reputation are the most important attributes of health care services. This is also the reason, why some population groups (e.g. elderly, or people from the capital) prefer to pay informally. We have also learned that formal payments might lead to the decrease of informal payments for those who have budget constraints, as lower-income households may try to compensate the increasing burden of formal payments with decreasing their expenditure on informal ones. In 2007, the introduction of user fees in Hungary was also associated with a reduction of informal payments among the low-income households. However, if the decrease of these payments occurs only among the lower-income households, who are not able to pay for the double burden, inequalities in access can increase, i.e. those, who continue to pay informally, may have better access to health care services compared to those who are not able to pay. Thus, the implementation of user fees is hardly a sufficient tool on its own to "formalize" informal payments. Furthermore, due to this controversial mechanism, it is suggested not to emphasize the potential of user fees to eradicate informal payments in policy discussions.

We have also learned, that public acceptance of the policy aims of the implementation of user fees is crucial to the successful implementation of the fees. However, in Hungary the two main policy objectives of the implementation of user fees in 2007 were not entirely supported by the public, which might be one of the reasons why the fees were rejected. Thus, close communication with the public about their expectations and about the policy objectives of the fees is essential before the implementation of such fees.

Qualitative results have shown that the Hungarian population is rather discontent with the quality of health care services provided by the social health insurance. Consumers consider user fees as a potential solution to raise revenue for financing health care in order to improve the quality of health care provision. The results of the stated preference methods also indicate that Hungarian health care consumers are not against official payments for health care services, but they expect value for their money. However, we have found that those, who are willing, are already paying for health care services. In this way informal payments indicate a willingness to pay formal fees as well. Thus, it seems that the incentive behind the willingness to pay formal fees and informal payments are similar, namely the desire to achieve better quality care. The introduction of formal payments in future, should assure the improvement in quality and access, otherwise, user fees will remain unpopular among the public similarly to the introduction of user fees in 2007. For this, it would be essential to measure and monitor the quality of the services and settle the quality requirements in regulations. This would also help to reduce the informal payments channels.

Finally, we have found that informal payments are not only the heritage of the socialist period but the concomitant of the present health care system as well. These payments reflect the deficiencies of health care provision (e.g. poor service quality, low salary of the health care workers, poor governance). Furthermore, Hungarian health care actors have a rather positive attitude towards these payments, as for them, the perceived “poor service quality and low salary of physicians” legitimate the existence of informal payments. However, these payments are not the solution to the wage problems of physicians, as only a small group of physicians benefits from these payments (mostly head physicians and managers), who have the power to block important changes in health care system to maintain the status-quo. For the other physicians and health care workers, salary levels remain below the average wages in Hungary, which induce an outflow of health care workers from the country. In order to deal with informal payments it is necessary to address the positive attitude of health care actors towards these payments, and these payments should be strongly discouraged in order to improve equity in health care financing and to avoid inequalities in access to health care.

Samenvatting

In de laatste decennia is in Hongarije het percentage eigen betalingen ('out-of-pocket payments') van huishoudens aan de gezondheidszorg toegenomen. Momenteel bedragen de eigen betalingen 26% van de totale uitgaven voor de gezondheidszorg. Het grootste deel van deze eigen betalingen bestaat uit de uitgaven aan geneesmiddelen en medisch hulpmiddelen (75-80 procent), waar eigen bijdragen een substantieel onderdeel zijn en al lange tijd worden toegepast. Deze eigen betalingen van patiënten aan de gezondheidszorg is de focus van dit proefschrift. De omvang van officiële eigen bijdragen is beperkt en de meeste diensten die vergoed worden door de sociale ziektekostenverzekering worden gratis aan de consument verstrekt. Echter, patiënten betalen regelmatig voor gezondheidszorg door middel van informele betalingen aan het personeel, in de hoop betere kwaliteit van diensten te krijgen. Als onderdeel van een breder pakket aan hervormingsmaatregelen, heeft de overheid in 2007 een één-euro eigen bijdrage geïmplementeerd voor het gebruik van de gezondheidszorg die vergoed wordt door de sociale ziektekostenverzekering. Deze vergoeding was bedoeld om de kosten van de gezondheidszorg te beheersen en om informele betalingen te verminderen. Echter, de implementatie van de eigen bijdrage ondervond sterke politieke oppositie en was zeer impopulair bij het publiek. In 2008, een jaar na de implementatie, heeft een referendum onder de bevolking op initiatief van de oppositiepartij in het parlement geleid tot het afschaffen van de eigen bijdragen.

De implementatie van eigen bijdrage voor de gezondheidszorg is een nogal gevoelige kwestie gebleken, niet alleen in Hongarije maar ook in andere Centraal - en Oost-Europese landen. Beleidsmakers schrikken terug voor (her)invoering van de eigen bijdragen om te voorkomen dat ze impopulair worden bij het publiek. Gezien de complexiteit en gevoeligheid van eigen bijdragen voor de gezondheidszorg in Hongarije, zijn de twee doelstellingen van dit onderzoek: (1) welke lessen moeten worden getrokken uit deze ervaring met de implementatie van een eigen bijdrage in 2007 (dat wil zeggen wat zijn de herverdelingseffecten van de invoering van de eigen bijdrage alsmede het effect van de eigen bijdrage op informele betalingen van zorgconsumenten). (2) wat zijn de perspectieven voor toekomstige invoering van eigen bijdragen, met de nadruk op de houding van het publiek tegenover een eigen bijdrage (formeel en informeel), alsmede de bereidheid van zorgconsumenten om te betalen voor het gebruik van gezondheidszorg. Daarnaast besteedt het proefschrift ook bijzondere aandacht aan de relatie tussen formele en informele betalingen. We onderzoeken het effect van de introductie van de eigen bijdrage op de kans op informele betalingen, evenals het verband tussen de bereidheid tot formele en informele betalingen.

Het eerste deel van dit proefschrift richt zich op de eerste doelstelling (Hoofdstuk 2 en 3), met name op de ervaringen uit het verleden met de invoering van de eigen bijdrage. In Hoofdstuk 2 hebben we, met behulp van gegevens van het huishoudbudgetonderzoek uitgevoerd door het centraal bureau voor de statistiek van

Hongarije, gekeken naar de veranderingen in progressiviteit van deze bijdrage gedurende een periode van vier jaar (2005-2008). Onze resultaten bevestigen de conclusies van eerdere onderzoeken die vonden dat eigen bijdragen een regressief middel zijn om inkomsten van de gezondheidszorg te verhogen (met een Kakwani index van -0.22). De last van formele betalingen is aanzienlijk toegenomen na de invoering van de eigen bijdrage en bovendien werden deze uitgaven meer regressief (dat wil zeggen dat de toename hoger was onder de lagere inkomens). Tegelijkertijd zien we een daling van de informele betalingen, deze werden minder regressief (dat wil zeggen dat de daling hoger was onder de lagere inkomens). Deze bevinding suggereert dat huishoudens die slechter af zijn getracht hebben om de toenemende last van formele eigen bijdragen te compenseren met een afname van hun uitgaven aan informele betalingen. **In Hoofdstuk 3** hebben we ons gericht op het effect van de invoering van de eigen bijdragen van 2007 op informele betalingen. In Oost Europese landen (zoal Hongarije), waar informele betalingen wijdverbreid zijn, is de invoering van de eigen bijdrage ook gemotiveerd doordat het mogelijk leidt tot uitroeping of “formalisering” van informele betalingen. In Hoofdstuk 3 hebben we met behulp van een probit-regressie-analyse gekeken naar de veranderingen in de kans op het betalen van informele betalingen op korte termijn. Voor deze analyse hebben we gebruik gemaakt van gegevens van een steekproef van 2500 respondenten verzameld in april 2007, twee maanden na de invoering van de eigen bijdrage. Deze gegevens hadden betrekking op informele betalingen voor het laatste bezoek aan de arts/laatste opname in het ziekenhuis.

In overeenstemming met de literatuur over informele betalingen in Hongarije, vinden we dat patiënten in Hongarije gewend zijn informele betalingen te verrichten voor medische diensten. We hebben geen significante afname gevonden op korte termijn na de invoering van eigen bijdragen van de kans op informele betalingen voor het laatste arts bezoek / ziekenhuisopname, behalve voor oudere patiënten die werden opgenomen in het ziekenhuis. Omdat ouderen in Hongarije veelal een lager inkomen hebben kunnen ze minder goed in staat zijn om deze dubbele lasten te dragen.

Het tweede deel van dit proefschrift (Hoofdstuk 4 en 5) onderzoekt de houding van de bevolking ten aanzien van formele en informele betalingen door patiënten. **In Hoofdstuk 4** worden met behulp van een combinatie van kwalitatieve en kwantitatieve methoden de ervaringen en verwachtingen van de stakeholders in de gezondheidszorg in Hongarije met betrekking tot de verdeling van de kosten van zorg onderzocht.

We vinden dat in 2007 consumenten de gestelde beleidsdoelstellingen van de invoering van eigen bijdragen, dat wil zeggen de afname van onnodig zorggebruik en de uitroeiing van informele betalingen, niet ondersteunden. Een groep zorgconsumenten (voornamelijk gepensioneerden en gezinnen met kinderen die de meest frequente gebruikers zijn van de gezondheidszorg), is het er niet mee eens dat een daling van het zorggebruik in Hongarije noodzakelijk is.

Bovendien betwijfelen zorgconsumenten in 2007 of een eigen bijdrage ertoe leiden dat informele betalingen verdwijnen, omdat noch de maatregel, noch de doelstellingen noch de begunstigen van formele en informele betalingen hetzelfde zijn. Het gebrek aan steun voor de genoemde beleidsdoelstellingen is wellicht een van de redenen waarom in het referendum de eigen bijdragen werden verworpen door de bevolking.

We vinden ook dat zorgconsumenten niet tegen eigen betalingen zijn. Zorgconsumenten zouden deze kosten accepteren als de opbrengsten werden geherinvesteerd in de gezondheidszorg en gebruikt om de kwaliteit van de gezondheidszorg te verhogen. Deze houding is te verklaren uit de ontevredenheid van de bevolking over de kwaliteit van de gezondheidszorg, hetgeen ook werd uitgedrukt tijdens de focusgroep interviews die voor dit proefschrift zijn uitgevoerd.

In Hoofdstuk 5 hebben we met behulp van gegevens uit een landelijk representatief kwantitatief onderzoek de attitudes en percepties over informele betalingen geanalyseerd. We hebben hiervoor clusteranalyse met multinomiale logistische regressie gecombineerd. We vinden dat drie belangrijke percepties met betrekking tot informele betalingen kunnen worden onderscheiden: personen die informele betalingen accepteren, die er aan twijfelen en zij die zich ertegen verzetten.

Over het geheel genomen vinden we dat zorgconsumenten in Hongarije informele betalingen tolereren als ze deze betalingen als onvermijdelijk ervaren en als een gevolg van het gebrek aan middelen in de gezondheidszorg. Deze waarneming is in overeenstemming met de economische verklaring van informele betalingen. De positieve houding van de consument wordt ook versterkt door zorgverleners. Volgens de Ethische Codex van de Medische Kamer in Hongarije, zijn informele betalingen legaal en legitiem vanwege de lage salarissen van artsen en de slechte werking van het zorgstelsel. Tot nu toe heeft de nationale regelgeving de informele betalingen niet verboden.

In het derde deel van het proefschrift (Hoofdstuk 6 en 7) wordt met behulp van stated preference methoden, te weten contingent valuation en een discrete keuze-experiment, de bereidheid van de Hongaarse zorgconsumenten tot formele betalingen voor de gezondheidszorg en de voorkeur van consumenten voor verschillende attributen van zorgdiensten onderzocht. **In Hoofdstuk 6** is een contingent valuation methode gebruikt om gegevens te verzamelen over de bereidheid van de Hongaarse zorgconsumenten tot formele betalingenvoor gezondheidszorg. De verwachting wordt bevestigd dat zorgconsumenten niet tegen het betalen van een extra bijdrage voor diensten van de gezondheidszorg zijn als deze diensten worden geleverd met een goede kwaliteit of de extra bijdrage leidt tot betere toegankelijkheid van zorg (zie hoofdstuk 4). We hebben gevonden dat de meerderheid van de Hongaarse bevolking bereid is om voor diensten van de gezondheidszorg te betalen als de diensten een bepaalde kwaliteit en toegankelijkheid hebben. We hebben ook ontdekt

dat de bereidheid tot formele betalingen positief samenhangt met eerdere informele betalingen. Bovendien suggereren de resultaten dat sommige bevolkingsgroepen (bijvoorbeeld ouderen en respondenten uit de hoofdstad) misschien liever informeel betalen, omdat we vinden dat ze vaker informeel betalen, maar minder vaak bereid zijn om formeel te betalen.

In Hoofdstuk 7 hebben we gebruik gemaakt van gegevens van een discrete keuze-experiment om de voorkeur van de zorgconsumenten over de keuze van zorgverleners aan het licht te brengen. Wij hebben het effect van de verbetering van de dienstverlening (kwaliteit, toegankelijkheid en prijs) op patiënten keuze geanalyseerd, evenals de verschillen in voorkeuren tussen verschillende socio-demografische groepen. We vinden dat respondenten het meest bereid zijn om te betalen voor meer vaardigheden en een betere reputatie van de arts en voor een positievere houding van het gezondheidszorg personeel. Medische apparatuur en het onderhoud van de zorginstelling worden ook als belangrijke factoren beschouwd. Echter, wachttijd en reistijd naar de zorgfaciliteit zijn minder van invloed op de keuze van de zorgconsument. Met andere woorden, de consument is bereid om te reizen naar of te wachten voor de dienstverlening indien ze worden behandeld door ervaren, kundig en beleefd personeel.

Concluderend, de resultaten van de stated preference methoden geven ook aan dat de Hongaarse zorgconsumenten niet tegen officiële betalingen voor gezondheidszorg zijn, maar dat ze waar voor hun geld verwachten. Echter, we hebben gevonden dat degenen die bereid zijn om te betalen, al betalen voor gezondheidszorg. Op deze manier wijzen informele betalingen op een bereidheid om ook formeel te betalen. Zo lijkt het erop dat de prikkel achter de bereidheid voor formele vergoedingen en informele betalingen gelijk zijn, namelijk de wens om zorg van betere kwaliteit te verkrijgen. In de toekomst moet de invoering van formele betalingen zorgen voor verbetering van de kwaliteit en toegankelijkheid, anders zullen vergoedingen impopulair blijven bij het publiek net zoals de invoering van eigen bijdragen in 2007. Daarvoor zou het van essentieel belang moeten zijn om de kwaliteit van de dienstverlening te meten en te bewaken en kwaliteitseisen in wet-en regelgeving vast te leggen. Dit zou ook helpen om informele betalingen te verminderen.

Összefoglaló

Magyarországon az utóbbi két évtizedben a lakosság közvetlen (out-of-pocket) kifizetéseinek aránya folyamatosan növekedett az egészségügy finanszírozásában, és ma az egészségügy kiadások 26%-át teszik ki. Ezen kiadások többsége (75-80 százalék) a gyógyszerekért és gyógyászati segédeszközökért fizetett térítési díj. Ezzel szemben az egészségügyi ellátásokért fizetett térítési díjak mértéke elhanyagolható, mert a társadalombiztosítás keretében az egészségügyi ellátások többsége ingyenesen vehető igénybe. Ennek ellenére a betegek mégis rendszeresen fizetnek az egészségügyi ellátásokért, mégpedig informális csatornákon keresztül, hálapénz formájában. 2007-ben a kormány a Konvergencia Program keretében kísérletet tett egy 1-eurós vizitdíj bevezetésére. A vizitdíj bevezetésének célja az „indokolatlan vizitek csökkentése” mellett a hálapénz visszaszorítása, „kifehérítése” volt. A vizitdíj bevezetése azonban társadalmi és politikai ellenállásba ütközött, és az akkori ellenzéki párt által kezdeményezett népszavazáson a válaszadók közel 80%-a támogatta a vizitdíj eltörlését. A népszavazás eredményeképpen a vizitdíj és a kórházi napidíj, 2008 áprilisában, a bevezetésük után egy évvel, eltörlésre kerültek. A tapasztalat azt mutatja, hogy a vizitdíj és egyéb térítési díjak bevezetése, növelése kényes politikai kérdés, nemcsak Magyarországon, de más közép-és kelet-európai országokban is (pl. Csehország, Szlovákia). Éppen ezért a téma komplexitása és szenzitivitása további kutatásokat igényel, melyre e disszertáció keretében vállalkoztunk. A kutatás két fő célkitűzése a következő volt: (1) a 2007-es vizitdíj és kórházi napidíj bevezetésével kapcsolatos tapasztalatok feltárása (konkrétabban a vizitdíj bevezetésének a lakosság közvetlen kifizetéseiére gyakorolt hatásának, valamint a hálapénzre gyakorolt hatásának vizsgálata); (2) a jövőbeli kihívások és lehetőségek azonosítása, különös tekintettel a lakossági attitűdökre, valamint az egészségügyi szolgáltatások iránti fizetési hajlandóság feltárására. A disszertáció kiemelt figyelmet fordít a hálapénz és a hivatalos térítési díjak közötti összefüggések elemzésére. Megvizsgáltuk a térítési díjak bevezetésének a hálapénzfizetésre gyakorolt hatását, valamint a hálapénzfizetés és a térítési díj-fizetési hajlandóság összefüggéseit.

A disszertáció első része (2. és 3. fejezet) az első kutatási célra fókuszál, azaz a vizitdíj 2007-es bevezetésével kapcsolatos tapasztalatok feltárására. A **2. fejezetben** KSH adatok alapján vizsgáltuk a háztartások egészségügyi kiadásainak progresszivitását egy négy éves periódus alatt (2005-2008). Az elemzés során különböző típusú egészségügyi kiadások Kakwani indexét számítottuk ki. Eredményeink megerősítik a korábbi kutatások eredményeit, miszerint a közvetlen (out-of-pocket) kifizetés regresszív módja az egészségügy finanszírozásának (a Kakwani index -0,22), vagyis az alacsonyabb jövedelmű háztartások a jövedelmük nagyobb hányadát költik egészségügyre, mint a magasabb jövedelmű háztartások (2 vs. 6 percent). A háztartások terhei szignifikánsan nőttek a 2007-es reformok ideje alatt, a gyógyszerek és gyógyászati segédeszközök díjának emelése és a vizitdíj bevezetése után. Sőt, ezek a kiadások egyre regresszívebbé váltak (azaz a jövedelemarányos terhek növekedése nagyobb volt az alacsonyabb jövedelmű háztartások körében). Ezzel párhuzamosan

csökkentek a háztartások hálapénz kifizetései, és ezen kifizetések regresszivitása csökkent (azaz a terhek jövedelemarányos csökkenése nagyobb volt az alacsonyabb jövedelmű háztartások körében). Ez az eredmény arra utalhat, hogy az alacsonyabb jövedelmű háztartások megpróbálták kompenzálni a növekvő térítési díjak terheit a hálapénzre fordított kiadásaik visszafogásával. **A 3. fejezetben** a vizitdíj bevezetésének a hálapénz-fizetésre gyakorolt hatását vizsgáltuk. A közép- és kelet-európai országokban (mint például Magyarországon is), ahol elterjedt a hálapénz, az egészségpolitikusok a térítési díjak bevezetését gyakran azzal indokolják, hogy a hivatalos térítési díjak hozzájárulnak a hálapénz megszűnéséhez, „kifehéritik” a hálapénzt. A 3. fejezetben probit regresszióval vizsgáltuk, hogy tapasztalunk-e csökkenést rövidtávon a hálapénz-fizetés gyakoriságában a vizitdíj és a kórházi napidíj bevezetése után. Az elemzés használt adatok a legutóbbi vizit/kórházi tartózkodás alatt fizetett hálapénzre vonatkoztak, az adatgyűjtés 2007 áprilisában történt, két hónappal a vizitdíj bevezetése után. A minta 2500 válaszadó adatait tartalmazza. A szakirodalommal összhangban azt látjuk, hogy a hálapénz fizetése „mindennapos” Magyarországon. Az idős betegeket kivéve nem találtunk szignifikáns csökkenést a hálapénz fizetés gyakoriságában a vizitdíj bevezetése után. Mivel idősek általában az alacsonyabb jövedelműek közé tartoznak Magyarországon, így elképzelhető, hogy ők nem képesek kifizetni a kettős terhet.

A disszertáció második része (4. és 5. fejezet) a térítési díjakkal és a hálapénzzel kapcsolatos attitűdök feltárására fókuszál. **A 4. fejezetben** kvantitatív és kvalitatív módszertan kombinálásával megvizsgáltuk a lakosság vizitdíjjal kapcsolatos tapasztalatait, elvárásait és hogy milyen feltételek mellett tartják elfogadhatónak a térítési díjak bevezetését. Azt találtuk, hogy a lakosság a 2007-es vizitdíj és kórházi napidíj bevezetése kapcsán nem értett egyet a kitűzött egészségpolitikai célkitűzésekkel, a vizitek számának csökkentésével, és a hálapénz „kifehéritésével”. A lakosság egyes csoportjai (többnyire a nyugdíjasok és a gyermekes családok, akik a leggyakrabban veszik igénybe az egészségügyi ellátásokat), nem értenek egyet azzal, hogy szükséges lenne a vizitek számának csökkentése. Továbbá, a magyar lakosság kételkedik abban, hogy a vizitdíj meg tudná szüntetni a hálapénzt, mivel a kétféle kifizetés eltérő a célt szolgál, más a kedvezményezettje és a mértéke. Az egészségpolitikai célkitűzések támogatásának hiánya részben magyarázhatja a vizitdíj népszerűtlenségét és a népszavazás eredményét. Azonban a kutatási eredmények azt is mutatják, hogy a magyar lakosság nem ellenzi a térítési díjak bevezetését, viszont elvárják, hogy a beszedett díjak visszaforgatódjanak az ellátásba, és az ellátás minőségének javítását szolgálják. Ezt a hozzáállást jól magyarázza a lakosság elégedetlensége az egészségügyi ellátások minőségével. **Az 5. fejezetben** a hálapénz megítélését vizsgáltuk a magyar lakosság körében egy országos reprezentatív mintán végzett saját felmérés alapján. Klaszterezés és multinomiális logisztikus regressziós eljárások kombinálásával három fő csoportba soroltuk a válaszadókat: akik elfogadják, akik ellenzik a hálapénzt, valamint a kételkedőket. Összességében azt találtuk, hogy a magyar lakosság pozitív a hálapénzzel kapcsolatban, és a hálapénz-fizetést elkerülhetetlennek tartja az egészségügyben jellemző forráshiány miatt. Ez a felfogás összhangban van a

hálapénz közgazdasági magyarázatával. A lakosság pozitív hozzáállását az orvos-szakma álláspontja csak erősíti. A Magyar Orvosi Kamara Etikai Kódexe szerint „a hálapénz legfőbb oka az orvosok megalázóan alacsony fizetése. Mögötte az egészségügyi rendszer működésének zavara áll.” Ezen kívül a hazai szabályozás sem tiltja egyértelműen a hálapénzt.

A disszertáció harmadik része (6. és 7. fejezet) a magyar lakosság egészségügyi szolgáltatások iránti fizetési hajlandóságát és preferenciáit vizsgálja, feltárt preferenciaértékelési módszerek (feltételes értékelés és diszkrét választás) segítségével.

A 6. fejezetben, a feltételes értékelés módszerét használtuk a lakosság egészségügyi ellátások iránti fizetési hajlandóságának feltárására. Az eredmények megerősítették korábbi várakozásainkat, miszerint a lakosság többsége hajlandó lenne térítési díjat fizetni az egészségügyi ellátásokért, ha azok jó minőséggel és hozzáféréssel biztosítottak (lásd 4. fejezet). A térítési díj fizetési hajlandóság és a hálapénz fizetés között pozitív az összefüggést találtunk. Továbbá, az eredmények arra utalnak, hogy a lakosság egyes csoportjai (pl. idősek, és a fővárosiak) szívesebben fizetnek hálapénzt, mint térítési díjat. **A 7. fejezetben**, a diszkrét választás módszerét alkalmaztuk a lakosság preferenciáinak feltárására. Megvizsgáltuk, hogy az egészségügyi ellátás jellemzőinek (minőség, hozzáférés, és az ár) megváltozása hogyan befolyásolja a válaszadók választását az egészségügyi ellátások között, valamint a preferenciák eltérését a különböző társadalmi csoportokban. A legmagasabb fizetési hajlandóságot az orvos szakértelme és hírneve, valamint az egészségügyi dolgozók attitűdje iránt találtunk. Az orvosi műszerek és a rendelő, kórház állapota is fontos tényezők voltak a választásban. Azonban, várakozási idő a rendelő előtt, és az utazási idő a kórházba/rendelőbe kevésbé befolyásolta a válaszadókat a választásban. Más szavakkal, a magyar lakosság hajlandó többet várakozni és többet utazni azért, hogy szakképzett és udvarias egészségügyi dolgozók lássák el.

Összefoglalva, a feltárt preferenciaértékelő módszerekből származó eredmények azt mutatják, hogy a magyar lakosság nem ellenzi a térítési díjnak, de értéket várnak a pénzükért. Ugyanakkor azt találtuk, hogy azok, akik hajlandóak lennének térítési díjat fizetni, jelenleg is fizetnek az egészségügyi ellátásokért, hálapénz formájában. Ily módon a hálapénzfizetés egyben a lakosság fizetési hajlandóságát jelzi. Úgy tűnik, hogy a fizetési hajlandóság - mind a hálapénzfizetés mind a térítési díjak esetében - a jobb minőségű ellátás iránti igényből fakad. Így a térítési díjnak, amennyiben bevezetésre kerülnek a jövőben, biztosítania kell az egészségügyi ellátások minőségének javulását, különben ezek a díjak továbbra is népszerűtlenek maradnak a lakosság körében, a 2007-es vizitdíjhoz hasonlóan. A minőség javítása érdekében elengedhetetlen lenne az egészségügyi ellátások minőségének mérésére és monitorozása, valamint a minőségi követelmények rögzítése a szabályozásban. Mindez a hálapénz felszámolásában is fontos szerepet játszana.

Thank you words

“It’s done, the great act of creation. The maker rests. The wheel’s in motion.” (Imre Madách: The Tragedy of Man)

I had more than hundred pages to present my professional interest and my capability to carry out independent research. At the end, two pages are left to write about the “*great act of creation*” and to thank all who supported me during the years of my PhD study.

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Curriculum Vitae

Petra Baji was born on 24 September 1985 in Kaposvár, Hungary. She finished secondary education in her home town, and moved to Budapest in 2004 to start her studies in economics at the Corvinus University of Budapest. She specialized in finance, actuary studies, as her major, and in health economics as her minor. In 2009, she obtained her diploma with a degree summa cum laude.

Since July 2009, she has been working as a PhD researcher within the project ASSPRO CEE 2007, funded by the European Commission and coordinated by Maastricht University. Her research within the project has been focused on out-of-pocket patient payments and willingness to pay for health care services, which has provided the base for this dissertation.

During her 3-year PhD research, she published about 15 research articles, policy papers, and policy briefs, and she participated in various national and international research conferences and policy seminars.

Currently, she is an assistant lecturer at Health Economics and Health Technology Assessment Research Center at Corvinus University of Budapest. Besides teaching in Bsc and Msc programs, she participates in cost-of-illness and quality of life studies as well as in health technology assessment projects. Her future research interest is related to health insurance and value based purchasing.

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