

PAYMENT SYSTEMS AND INCENTIVES IN PRIMARY CARE: IMPLICATIONS OF RECENT REFORMS IN ESTONIA AND ROMANIA

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ABSTRACT

Since the early 1990s major reform in healthcare has been adopted in former communist countries in Central and Eastern Europe. More than twenty years later, reform in healthcare still draws much interest from policy makers and academics alike. One of the dynamic components of reform has been the reform of payment systems in primary care. This paper looks at recent developments in payment systems for primary care providers in Estonia and Romania. The paper discusses comparatively possible implications of these recent changes on the basis of literature on expected effects of the main existing payment systems - capitation, fee for service and salary. We conclude that finding the appropriate mix in paying and incentivizing primary care providers in a transitional context is not an easy task for healthcare policy makers who need to carefully weigh the advantages and inherent problems of various payment arrangements. In a transitional, rapidly changing healthcare system and society, and a context of financial stringency, the theoretical effects of payment mechanisms may be more difficult to predict and manage than it is expected.

KEYWORDS

Primary care, payment systems, financial incentives, Estonia, Romania

INTRODUCTION

After the collapse of the Soviet Union radical reforms of the health care systems were impelled in the newly independent countries to move away from the Semashko-type health care arrangement¹ based on universal coverage and centralized planning of care. Starting from the early 1990s also in Estonia and Romania health care systems have undergone significant changes through several waves of reforms. An essential part of the health care reform in both countries has been the rearrangement of the primary care and establishing the system of family medicine with the family physicians acting as the gate keepers and main coordinators of primary care. In a nutshell the values aimed at in both countries have been the central values of the primary care as also put forth in the literature e.g. to serve as the first point of contact equally accessible to all patient groups, provide continuous and comprehensive high quality care and entail a coordinating function (Boerma and Fleming, 1998; Gosden et al. 2001). Along the way an important area of reform in both countries has been (and still is) the use of adequate payment levels, systems and incentives to steer the behaviour of providers and patients in line with system-wide policy goals.

It is assumed that payment systems and incentives are influential (policy) instruments in steering the provision of healthcare (Gosden et al. 2001; Jegers et al. 2002). While they are an important component of any healthcare system, scholars agree that no clear-cut and easy models exist as different payment systems such as fee for service, salary and capitation all present inherent trade-offs. Even more, researchers have argued that little is known about the effects, implications and causal patterns of different payment systems and incentives (Conrad, 2009; Scott and Hall, 1995). As Conrad puts it ‘to date, no published research has compared the effects of ... incentives within capitation, per case and fee-for-service payment regimes’ (2009: 592). How the incentives paly out in a transitional context is a further issue that has received hardly any attention in the academic literature.

This paper investigates the implications of recent reforms in payment systems and incentives in primary care in two new EU-member states Estonia and Romania, where health sector reforms have been essential large-scale public sector reforms. We look at Estonia and Romania as different cases that help to cover variance in the transitional context. The main differences can be traced back to the size, population, economic wealth, etc.², all factors impacting strongly the context of healthcare provision. In addition, Estonia is often treated in international studies as a success story and poster child for carrying out rapid public sector reform. Reforms in Romania, by contrast, have been more incremental (Romanian Ministry of Health, 2010). The paper asks the following questions: what changes in payment mechanisms in primary care have been proposed and implemented in Estonia and Romania in recent years and what are the main implications of these reforms and what can these changes bring along in a transitional context.

¹ In *Semashko* system (named after the first health minister of the USSR) health policy was centrally planned and administered and healthcare to citizens was provided by the government from general public revenues rather than through social insurance or direct payments. It was characterized by the emphasis on inpatient care and hospital based services rather than primary care or preventative medicine; input based planning, rather than needs or cost effectiveness based planning; reliance on funding from the state budget.

² Romania has a population of ca 19 million compared to ca 1.3 in Estonia and a total area approximately five times larger than that of Estonia, in 2009 per capita GDP in Estonia was 19,694 USD compared to 14,278 USD in Romania (WHO, 2012).

The paper proceeds as follows. The first part provides a theoretical framework of the main payment mechanisms and the effects of these mechanisms as found in the literature. Thereafter the country chapters introduce the primary care reform in both countries in general and payment systems and mechanisms applied to the primary care level service providers in particular. In addition we draw implications of recent changes on the basis of theoretical expectations from the literature on payment mechanisms in primary care. The study is based on an analysis of legislation and official policy documents and academic studies from both countries. Inter alia we made use of the database of studies of New Public Management (NPM) reforms in Europe developed within the project *Coordinating for Cohesion in the Public Sector of the Future*³.

PAYMENT SYSTEMS AND INCENTIVES IN PRIMARY CARE

The traditional classification includes the three main systems of payment in primary care, i.e. salary, capitation and fee-for-service (FFS), differentiated on the basis of the unit which is paid for: units of time in the case of salary-based systems, individual patients in the case of capitation systems and units of service in the case of fee-for-service (e.g. Saltman and Figueras, 1997). The first two are often termed prospective systems, while fee-for-service systems are called retrospective meaning that in the first case the payment is received before the provision of care and in case of the latter after the provision of care. While these are the three main systems, varieties of them exist in practice, such as integrated capitation and mixed payment systems. Increasingly mixed payment systems are used to combine the advantages of each system and avoid their disadvantages (e.g. Greß, Delnoij and Groenewegen, 2006; Evans, Leone and Ngarajan 2005).

As some authors have argued it is important to acknowledge that while financial incentives may induce behaviour consistent with policy goals, they may also lead to unintended consequences (Maynard, 2008). It is assumed that different payment mechanisms have different impacts on the behaviour of physicians, and they can be employed to achieve various policy goals such as improving the quality of care, cost containment and recruitment in underserved areas (Gosden *et al.*, 2000). At the same time it is acknowledged that the same incentives can lead to very different effects as their impact depends on the co-variation of numerous factors ranging from the socio-economic and cultural context of the health care system and governments' health care objectives to the personal features of the healthcare provider and the patient in particular (Chaix-Couturier, 2000). We now turn to review and compare the expected effects and inherent trade-offs of each of the main payment systems: fee for service (FFS), capitation and salary based systems.

Fee for service systems

In fee for service systems general practitioners (GP) tend to overprovide services (Ibid) and evidence exists that if not properly regulated or combined with additional systems or

³ It is a European Commission's FP7-funded project. We used this database to supplement our literature search, but we did not analyse all studies in the database since only a portion of them pertains to payment mechanisms in primary care. The purpose of using the database was to gain access to relevant studies in healthcare reform in each country. It is not the goal of this paper to provide a systematic comprehensive review of the literature on the effects of payment systems in primary care in Estonia and Romania. The goal is to seek to draw informed preliminary implications of recent developments in the two countries on the basis of broader theoretical expectations of capitation, fee for service and salary systems. The database is available online at (<http://www.cocops.eu/work-packages/wp1-npm-meta-analysis/database-of-studies-of-npm-reforms-in-europe>).

incentives, FFS can lead to cost escalation and cost unconsciousness (Robinson, 1993) on the patients' side.

Namely, Evans, Leone and Nagajaran (2005) argue that in output-based FFS systems GPs tend to overprovide self-produced services, as their income depends on the amount and type of services provided. When compared to other payment mechanisms, FFS alone do not provide incentives for referral to higher levels of care, but rather the tendency is to hold the provision of care 'in house' (Greß, Delnoij and Groenewegen, 2006, p. 193). This can lead to a situation where patients are provided excessive care and overtreatment *alias* "supplier-induced demand" meaning that patients receive more care than they would choose themselves if they had the necessary knowledge (Gosden *et al.*, 2000). The theoretical impact of the latter on the health status of the patient is not clear, because both under- and overtreatment can have detrimental effects. At the same time, however, more in-house provision of care at the primary level fits into the growing trend towards a greater role of primary care within the healthcare system (Saltman, Rico and Boerma, 2006; Starfield, Shi and Macinko, 2005).

All in all, the congruity of incentivizing the provision of care in FFS systems is strongly dependent on their cost-effectiveness, which as a rule is hard to measure (Maynard, 2008). To mitigate the possible negative effects of FFS a high degree of coordination at the health care system level is required. This, however, can greatly increase transaction costs.

Salary-based systems

Salary-based systems are commonly thought to provide few incentives to encourage the delivery of services as salaries commonly depend on the qualification and task profile of the physician and not on performance (Gosden *et al.*, 2000). The main advantage, however, is a high degree of income security (in well-paid systems) for the service provider and high access to the patient (Greß, Delnoij and Groenewegen, 2006). In case of low incomes the cost security is often outweighed by a discontent of limited opportunities to increase revenues, frequently accompanied by ill-mannered service provision, low motivation and satisfaction, treatment of private patients and informal charges. In addition, salary systems tend to create incentives for under treatment. The salary systems therefore can include high societal costs which even out one of the main advantages of the system at the general health care organisation level – the low transaction costs facilitated by the easy administration and control of salaries (Greß, Delnoij and Groenewegen, 2006). The salary based systems provide marginal information about the cost, quantity and quality of services delivered (Maynard, 2008). They have the potential, however, to reduce the use of services and to increase general cost containment as the payment is received before any care is provided but this can lead to possible under treatment (Gosden *et al.*, 2001).

Capitation systems

In capitation systems primary care providers face different incentives: first, to provide preventive care and promotional services because in this way they can reduce future costs (most commonly meaning increasing the future budget). Second, capitation tends to create incentives to refer patients to specialists rather than treat them in house to contain costs (Gosden *et al.*, 1999). This, however, could lead to overutilization of the specialist care and inefficiencies at the healthcare system level (Evans, Leone and Nagajaran, 2005). Capitation is intended to ensure access to primary care to the registered patients (Greß, Delnoij and Groenewegen 2006). Nonetheless, Gosden *et al.* (2000, p. 3) argue that capitation systems may lead to and risk selection and unequal access reflected in reduced admission for high-risk patients. This may be due to concerns about keeping within the limit of the capitated amount

per patient. The latter is directly connected to possible undertreatment. In addition, capitation payment typically incentivizes GPs to hold large patient lists, resulting in longer working hours and shorter consultation times. Therefore creating a reputation of high quality or access to care may become “key” tasks for service providers (Gosden *et al.*, 2001). The capitation systems are believed to decrease incentives for supplier induced demand and provide ground for continuous and coordinated care (Greß, Delnoij and Groenewegen, 2006). The latter is facilitated because of fixed patients’ lists and restricted choice of service providers and the GP’s role of coordinating care. Lastly, regulation costs in primary care systems based on capitation tend to be lower than in FFS systems as the cost-benefit ratios are easier to calculate and risk adjustment is easier (Greß, Delnoij and Groenewegen, 2006).

Table 1: Main characteristics and expected effects of the main payment systems

		<i>FFS</i>	<i>Salary</i>	<i>Capitation</i>
<i>Main characteristics</i>	Unit of payment	Amount and type of services	Hours worked	Number, age, risk level of patients
	User charges	Yes	No	No
	Fixed patient lists	No	No	Yes
	Gate-keeping function	No	Yes	Yes
	Form of payment	Retrospective	Prospective	Prospective
<i>Incentive effects for primary care providers</i>	Increase activity	Yes, increase volume	No, rather underprovide	No, rather underprovide
	Shift costs	No	Yes, refer to other providers	Yes, refer to other providers
	Control costs for patients	No	Yes	Yes
<i>Incentives for central values of primary care</i>	Accessibility	Negative incentives	Positive incentives	Positive incentives
	First contact	Neutral	Neutral	Positive incentives
	Continuity	Negative incentives	Negative incentives	Positive incentives
	Comprehensiveness	Negative incentives	Positive incentives	Positive incentives
	Coordination	Negative incentives	Neutral	Positive incentives

Source: Compiled by the authors, based on Greß, Delnoij and Groenewegen (2006); Kutzin (2001) and Maynard (2008).

Most commonly *mixed systems* are put in place to balance the inherent disadvantages of each payment system. Mixed systems are often presented as superior to any system alone, but if not carefully designed they can present drawbacks. The mixed systems may entail several trade-offs between cost and quality – for instance, a physician remunerated both by capitation and quality bonuses is concurrently paid to improve quality and reduce costs (Evans, Leone and Nagajaran, 2005). Policy makers need to carefully weigh the various possible options to maximize their advantages and reduce their inherent problems. Achieving this goal, however, is no easy task.

PAYMENT SYSTEMS AND INCENTIVES IN PRIMARY CARE: THE CASE OF ESTONIA

After regaining independence from the Soviet Union in 1991, the Estonian healthcare system has undergone significant changes through several waves of reform. In the early 1990s rapid and radical legislative reforms brought along major changes in that time *Semashko*-type health care system followed by more incremental developments from the late 1990s (Jesse *et al.*, 2004; Koppel *et al.*, 2008).

The reforms in the early 1990s laid ground for the institutional structure and basic legislation, fundamental changes to the health care financing system were introduced by establishing mandatory and universal health insurance system (based on multiple sickness funds). Also organisational reforms were launched through decentralization of planning, purchasing and provision. Health care institutions were given stronger managerial autonomy and contracting system for service providers and fee-for-service payment schemes were established. (Habicht, Aaviksoo and Koppel, 2006)

The late 1990s witnessed the recentralization of some tasks of the health care planning function decentralized earlier. Additional incremental changes were introduced aimed at greater efficiency and transparency by clarifying and strengthening the existing legislation which regulates the functions and responsibilities of service providers, purchasers and other stakeholders. Efforts to clarify and coordinate the system have continued in the new century (Habicht *et al.*, 2009). The current phase can be described as continuous “fine-tuning”, monitoring and improving the performance of the system and ensuring its sustainability.

Developments in primary health care

In the Soviet era, primary care in Estonia was provided predominantly in polyclinics and health centres owned by municipalities. Family medicine was seen as a possibility to build up a more effective and better coordinated health care system (Habicht *et al.* 2009). The reform started in 1991 with the main aim to establish family medicine as a medical speciality with its own under- and postgraduate training programs. This was followed by the introduction of a country wide family physician (FP) network in 1997 that required people to register with a particular family doctor. By 1998 circa 70% of the population was registered. Thereafter a new legal status of independent contractor and payment scheme for FPs was introduced (1998) and FPs were rendered a gatekeeping role aimed at ensuring continuous and coordinated primary care (Jesse *et al.* 2004; Habicht *et al.* 2009). Since 2001 primary care is organised as the first level of contact in the healthcare system and is provided by family doctors contracted by the Estonian Health Insurance Fund (EHIF) (EHIF, 2007). Other relevant changes include the introduction by the EHIF of a family doctor cost model in 2003, which increased the difference in capitation across age groups. In 2006 a performance-based payment system was launched to increase the quality and effectiveness of preventive medical services and improve the monitoring of chronic illnesses (EHIF, 2007).

The main objectives of primary care in Estonia are summarized in *First Contact Care Development Plan 2009-2015*. The strategic aim set in this document is a functional primary level healthcare system that responds to the needs and expectations of the society. This overarching objective is further elaborated into three strategic goals: 1) primary care services are equally accessible to all citizens; 2) they meet established quality standards and respond to the needs of citizens and 3) the use of primary level resources is rational, efficient and supports the effective functioning of the overall healthcare system.

Primary care practitioners in Estonia are paid through a mixed payment system comprising capitation and additional remuneration. The payment mechanism is designed to provide incentives for FPs to take more responsibility for diagnostic services, treatment and continuity of care and to compensate for financial risks associated with caring for the elderly and working in remote areas (Thomson *et al.*, 2010). The components of the payment mechanism are the following. *Capitation payments* in the Estonian system depend on the number of patients on the list and are aimed at covering main services and expenditures with furnishing, practice pay funds and daily supplies. The capitation payment is adjusted to patients' age in three groups (<2, 2-69 and ≥70 years). Family doctors with less than the minimum of 1,200 patients receive capitation for 1,200 people in order to cover their fixed costs. Initially (starting from 1998) the capitation rates were equal for all age groups, but in 1999 adjustments for age were introduced, while in 2003 the difference in capitation across age groups was further expanded by raising the rate for children under age two by more than 50% (Government regulation, 2001; Thomson *et al.*, 2010). *Base allowance* is aimed at covering the fixed operating costs of the practice while the *fund for medical examinations and tests* is seen as an incentive to provide services not covered by the capitation fee, and is disbursed after the provision of services. This is in fact a fee-for-service payment adding up to 27% of the total capitated amount (32% of FPs took part in quality bonus system in 2011). A *distance allowance* provides additional income depending on the distance of the praxis from the nearest hospital and is aimed at motivating the FP working in faraway places. *Allocations for advisory phone line*, introduced in 2005, give FPs the possibility to register for a contract for providing state wide 24h advisory phone line services. A *pay for performance (P4P) scheme* is paid once a year and depends on the level of provision of certain services, and improve the quality and effectiveness of preventive care and monitoring of chronic illnesses. Joining is voluntary and those practitioners who join are requested to perform certain simple surgical procedures and monitor normal pregnancies. For reimbursement FPs must provide electronic reports on their achievement of performance annually by patients' subgroup and services provided. For meeting the performance indicators a FP can receive up to 48,000 kroon (€3,067) annually in addition to the per capita payment (Government regulation; Thomson *et al.*, 2010).

Table 2 depicts the trend since 2005 of the share (percentage) of each component of the payment system in the primary health care budget.

	2005	2006	2007	2009	2010	2011
<i>Basic allowance</i>	11.0	9.5	12.0	11.0	11.0	11.5
<i>Qualification allowance</i>	1.5	1.6	0.8	-	-	-
<i>Capitation fee</i>	72.0	73.0	69.0	68.0	66.0	65.0
of which						
up to 2 years	2.0	3.0	3.0	4.0	3.0	4.0
2-70 years	60.0	60.0	56.0	54.0	53.0	52.0
over 70 years	10.0	10.0	10.0	10.0	10.0	9.0
<i>Fund for examinations and tests</i>	14.5	14.5	16.5	18.5	20.0	20.4
<i>Distance allowance</i>	0.5	0.5	0.5	0.5	0.5	0.5
<i>Pay for performance</i>	-	-	0.4	1.1	1.6	1.7
<i>Advisory phone line</i>	0.5	0.9	0.8	0.9	0.9	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Authors' calculations on the basis of the Annual reports of the Estonian Health Insurance Fund, 2006-2011.

The capitation payment has accounted for the largest proportion of the income in the last six years, making up 72% in 2005 and 65% in 2011. The largest share of capitation payments has steadily been allocated to the broadest age group (2-70 years), followed by the elderly and the infants. The second important component of the overall budget is the fund for examinations and tests, which has been steadily increasing, making up more than 20% in 2011 compared to 14.5% in 2005. Third, basic allowances hold a stable share of circa 11% of the budget. Pay for performance, allocations for advisory phone line and distance allowance add marginal revenue with less than 2% each.

PAYMENT SYSTEMS AND INCENTIVES IN PRIMARY CARE: THE CASE OF ROMANIA

Reforming the health care system to improve the status, role and use of primary health care services was and still is one of the main goals of health care reform in Romania. Although interest in reform permeated the Romanian society after 1989, major reform in primary care was only implemented starting in late 1990s. In comparison with other countries in the region, such as Estonia, which took more rapid steps for reform, reform in Romania overall was more incremental.

As in the Estonian case, the reforms adopted after 1989 were first aimed at creating a legal framework that would reshape health care on the principles of social health insurance based on contractual relationships between purchasers and providers with the right of patients and families to select a family physician of their choice. Family medicine gained an autonomous, recognized professional identity and FPs became private, independent contractors with the newly created National Health Insurance Agency and local health insurance agencies in each county. FPs gained a gate-keeping role and increasingly more responsibilities and professional recognition.

This trend of greater emphasis placed on the use of primary care has continued recently and is considered a key goal of current healthcare reform plans (Romanian Ministry of Health, 2010). As stated in official policy documents, such as the *National Strategy for the Rationalization of Hospitals* (Romanian Ministry of Health, 2010), a key current goal of reform is to “remodel” the demand for health services. According to the current strategy this involves a greater use of primary care and a rationalization of the use of hospital care. The underlying objective is to increase savings and efficiency at the system level starting from the observation that a greater reliance on primary care can reduce referral rate to higher (and presumably more expensive) levels of care (Memorandum to HG 303/2011). In proposing this shift central policy makers argued that hospital care is still considered in Romania by some as the “primary method of intervention,” a legacy of the communist regime (Romanian Ministry of Health, 2010). While current financial stringency is driving this wave of reforms, quality considerations are presented as complementary (Romanian Ministry of Health, 2010).

Both capitation and FFS are currently used to remunerate primary care providers in Romania. The specific provisions are established in the methodological norms of the framework contract concerning healthcare provision within the social health insurance system. Although not officially considered a distinct payment mechanism in the relevant legislation, there are special provisions towards financial incentivization. They cannot be considered pay for

performance incentives since, unlike in the Estonian case, there are no specific provisions in the law currently for the use of pay for performance in primary care in Romania.

The system of payment is based on “points” which providers can accumulate depending on the number and age of patients registered on their list (the capitation system) and the amount and type of services provided (for the FFS payment). By summing the two parts a total number of points is obtained which then is multiplied by the value per point to form the monthly income. A key recent development has been a change in the ratio between the budget allocated centrally to capitation and FFS payments. Traditionally, capitation constituted the main component, until recently the ratio was 70% capitation compared to 30% FFS. However, currently the ratio is 50% capitation and 50% FFS, which reflects a greater reliance on co-payments to increase providers’ income (Methodological norms, framework contract 2012, annex 2, p. 18). The components of the payment system are presented below.

Capitation payments in primary care in Romania are designed to remunerate providers for a wide variety of services. The actual amount paid is a function of the number of capitated points and the value established for a point. The capitated points depend on the number and age of registered patients with greater points allocated to infants and senior citizens. *Fee for services* have been increasingly used in primary care in Romania so that currently funds allocated through this mechanism constitute 50% of the total budget. As in the case of capitation, for each type of service reimbursed, providers accumulate points. The points are subsequently multiplied by the value of a fee for service to obtain the total amount. Primary care providers can be reimbursed up to a certain number of capped services (or consultations) – capped currently at a maximum of three home consultations per day and twenty per month (in the case of home consultations). There is a clear difference in the number of points with an embedded incentive provided for stimulating home consultations. *Special provisions and incentives* embedded within the two main payment mechanisms are designed to change provider behaviour in some sense or to cover for possible additional costs. What is more common in the Romanian primary care system is the prevalence of incentives meant to increase access of disadvantaged populations or to improperly covered areas:

- a) *Incentive to register “institutionalized” patients.* Depending on age group the capitated points are increased by 5% if primary care providers choose to register patients (typically children) who live in public or private social placement institutions
- b) *Incentive to open a practice in a disadvantaged or underserved area*
- c) *Incentive for higher education and qualification.* Depending on qualifications, a “chief physician” (the highest qualification in the Romanian system) can earn 20% more points compared to a “specialist physician” and 10% fewer points without the qualification of a specialist physician
- d) *Incentive for opening a new practice.* This forms the allocated amount for a new provider for a period of three months considered by legislators to be necessary for a doctor to enlist potential patients. It consists of i) an amount equal to the average of the minimum and maximum salary within the public healthcare system for a given qualification; ii) a “start-up” amount to account for administrative and other personnel costs as well as for costs with medication and basic medical equipment equal to the amount in i) multiplied by 1.5.

IMPLICATIONS OF RECENT CHANGES: A DISCUSSION

In the following we put forth a number of conjectures based on recent developments in payment systems pointed to earlier in the light of theoretical expectations and try to gasp how these aspects play out in a transitional context.

First, the increasing use of FFS, particularly salient in Romania, can “remodel” demand for healthcare services – as envisaged by Romanian health policy makers – to strengthen the role of primary care and improve efficiency at the healthcare system level. Under FFS, primary care providers are encouraged to provide more services “in house” which can reduce referral to higher and more expensive levels of care. Therefore the efficiency of the overall healthcare system can be expected to improve. While theoretical expectations point in this direction, it is important to note that a broader range of services provided in primary care requires greater capacity, both human and physical, which is still a major need in certain areas of the country (see for example Vlădescu, Scîntee and Olsavski, 2008; WHO, 2012). The lack of the previous has emerged as a problem in the Estonian case, where broadening the scope of primary care services has been problematic in rural areas where a primary care provider can rarely practice special procedures. Complex and new services require experience, therefore, enhancing the range and quality of services concurrently appears to be contradictory. Most fundamentally, in the Romanian case it may require cultural change on the part of the population, who is still in general accustomed to viewing hospitals as the main, and superior, care-giving unit, and healthcare as being free at the point of delivery (Romanian Ministry of Health, 2010; WHO, 2012). Cultural changes typically take time to become effective, longer than a needed improvement in capacity and infrastructure (for example Pollitt and Dan, 2011).

As in the case of Romania, Estonian policy makers have pursued an increased provision of primary care services with the enhancement of the gate-keeping role of primary care (First Contact Care Development Plan 2009-2015; NAO, 2011). The problem of over-referral to specialist care, even in cases where the provision of medical services falls within the competence of primary care, was shown elsewhere to be prominent (First Contact Care Development Plan 2009-2015; NAO, 2011). In both countries a key problem lies in the lack of motivation of FPs to provide all the services pursuant to legislation. The solution in terms of payment system adopted in Estonia was the introduction of the P4P scheme in 2006 to increase the proportion, but also quality and effectiveness of preventive medical services and increase the role of FPs in monitoring chronic illnesses (see for example Thomson *et al.*, 2010). Theoretically, this should at least in part address the problem of over-referral as P4P is considered effective in overcoming under treatment in capitation-based systems (Van Herck *et al.*, 2010). The National Audit Office of Estonia (NAO), however, showed that the system had not been effective in achieving these goals for several reasons. On the one hand, some services that should be provided by FPs are considered too complex and only rarely provided due to lack of needed experience (NAO, 2011). On the other hand, over referral to specialist care is correlated with age and consequently with previous work experience in the communist system. The study showed, for example, that Estonian FPs believed that habitual practices to refer patients with chronic illnesses to specialist care is related to the earlier work culture and main principles of health care provision. A further development in the system foresees a shift towards clarifying and curbing the list of services, and focusing on retraining.

A second implication to be considered is that a mixed system comprising capitation and FFS with a growing FFS component is expected to address the tendency for undertreatment in full capitation systems and overtreatment in pure FFS systems. It is anticipated that recent changes may affect access to services due to a higher portion of user fees and co-payments.

Some recent empirical literature has in part supported this hypothesis although it should be emphasized that most of it does not include recent reforms and reflected only the predominant capitation-based payment structure. Further empirical research needs to be conducted to estimate the effects of FFS on affordability and accessibility of primary care services. On the basis of the little previous work (for example WHO, 2012) there is some evidence that a higher co-payment rate can discourage patients from regular physician visits and needed care, and possibly stimulating informal care. In achieving the policy goal of rationalizing resources, the co-payment rate in primary care in Romania has remained overall lower than in secondary care to encourage greater treatment in primary care (Romanian Ministry of Health, 2010). A lack of culture of paying for health care at the point of delivery combined with poverty and low incomes in certain areas constitute possible barriers that can worsen access to care. These are particularly relevant for the Romanian case. With respect to the need for observing a strong ethical code in day to day practice, it should be noted that recent reform can possibly have further implications analysed through this lens (Gosden, Pederson and Torgerson, 1999). On the one hand, FFS is expected to reduce informal payments since the income of FPs in Romania was foreseen to increase following the greater portion of FFS in the overall payment structure. On the other hand, however, lack of a strong ethical code may facilitate an increase in provider-induced demand as with FFS there is greater incentive to increase the number and type of services. If not supported by strong ethics, this may have negative implications on over- or improper treatment (for example Gosden *et al.*, 2000).

A third implication that we propose concerns the expected improvements in recognition of the role of primary care, and better communication and collaboration between primary care providers and other actors in the health and social care system. Assuming a larger range of services can create an impetus towards this end. It was noted elsewhere in the literature that in Romania primary care has not yet gained the coordinating role that it has in developed systems in the West (Romanian Ministry of Health, 2010). In Romania some evidence exists in favour of improvements in the recognition of the role of primary care since 2006 when a distinct chapter of the comprehensive health care law was devoted to primary care, but inadequate vertical collaboration and coordination is still stressed as a problem (WHO, 2012). The communist legacy, overwhelmingly centred on specialist care, can be one main factor that explains this slow development in combination with the content of medical education which lacks a proper integration across levels of care. The case of Estonia provides further insight into coordination issues between different levels of care and collaboration with other social partners. As in Romania, this has been a crucial element of the reform. NAO (2011) concludes that in Estonia over-referral of patients with hypertension could be improved with greater cooperation and a decrease in duplication and redundancies between FPs and cardiologists. To foster cooperation, different internet-based solutions (such as e-referral to specialists, digital receipt) are in place, but their functionality still needs to be taken full advantage of (First Contact Care Development Plan 2009-2015). A larger shift in general work culture (the attitude and work practices) may be needed to support cooperation. In addition geographical access in a number of villages in the country was shown to be limited (First Contact Care Development Plan 2009-2015) which calls for improved coordination between different levels and actors in the system. Another factor that hinders cooperation is the reputational factor pointed out in the earlier section – often referral to specialist care is insisted upon by the patient due to lack of trust in the expertise of primary care providers (NAO, 2011). This problem may not be able to be solved with any single payment system, but is dependent on broader cultural factors that are difficult to change in the short term.

Fourth, recent trends do not seem to have any direct implications on improving the predictability of incomes of primary care providers. Low income predictability was found to be a main problem in the Romanian primary care system (Vlădescu, Scîntee and Olsavski, 2008). The point system strikes as more complex than the Estonian system, raising other concerns in terms of transaction costs and effective management of the system.

A fifth implication pertains to the potential for the use on a larger scale of P4P schemes. As emphasized elsewhere in the literature there is a need for higher quality and performance of primary care services in both countries. However, monitoring and evaluating quality and performance are still considered to be developing (Vlădescu, Scîntee and Olsavski, 2008; WHO, 2012). Recent reform in Estonia acknowledged the role of P4P although up to this moment it has been used by a small fraction of providers who voluntarily registered for the scheme. P4P schemes have been increasingly used in Western healthcare systems as part of a larger trend towards performance in public services (Saltman and Figueras, 1997; Smith *et al.*, 2009). However, experience in other countries has shown that certain criteria need to be met before a full-fledged P4P scheme can successfully be implemented in a transitional context. While a complete performance-centred scheme has not yet been promoted in any of the two primary care systems, various incentives embedded in the main payment mechanisms have been common in both states. An important question for further empirical research is the assessment of the impact of these incentives. This empirical question is by no means easy to answer. A host of challenges face evaluators such as causality and attribution problems, or lack of before and after data (Pollitt and Dan, 2011; Smith *et al.*, 2009).

Further developments of P4P in Estonia are geared towards a more systematic and broader implementation of the existing schemes. A first step foreseen in the First Contact Care Development Plan 2009-2015 is an increase in participation through a move from voluntary to compulsory participation. On the one hand it may help overcome the self-selection problem pointed out by Van Herck *et al.* (2010, p. 9) according to which voluntary participation leads to overrepresentation of (already) good performers. However, compulsory participation, on the other hand, may place burdens on the FPs with a more sizable proportion of patients with chronic illnesses both in terms of medical and administrative tasks. The latter could reinforce one of the main negative effects of capitation systems – enrolling patients who are less expensive to treat. In addition, a main criticism that providers were found to have with respect to the current P4P in Estonia is high transaction costs. FPs must provide electronic reports on their achievement of performance annually by patients' subgroup and services provided. Since the P4P initiative is not proportional to the extra funds received, increasing the share of providers participating in the initiative seems problematic. This is especially the case since work overload has been brought up as a key problem in primary care. (First Contact Care Development Plan 2009-2015) Hence the further development of the payment system may need to be complemented by additional funds or a greater proportion of P4P in the total funding to provide greater incentives.

CONCLUDING OBSERVATIONS

This paper looked at recent developments in payment systems and incentives in primary care in Estonia and Romania. We described comparatively recent changes in payment

mechanisms, followed by an analysis of potential implications of these changes. The comparison of the two countries reveals a number of similarities and differences between the two cases. In both countries, health policy makers have envisaged a more prominent role for primary care in recent years in line with international trends. Changes in payment systems have drawn increasing attention in both healthcare systems and have been considered one of the key instruments towards greater motivation, satisfaction and performance. While capitation has remained a main component of the payment system in both nations, FFS has gained increasing ground, especially in Romania where currently the proportion of FFS payments equals that of capitation. A number of incentives embedded in capitation and FFS are targeted at increasing access and, particularly for the Romanian case, at motivating the acquisition of higher qualifications and the establishment of new practices. This is particularly needed in rural areas where there is insufficient coverage. In addition to the main payment mechanisms, performance incentives such as P4P have been experimented with, but they are yet insufficiently used. Potential exists for using them on a larger scale to improve prevention, quality and performance, but experience in other countries has shown that such schemes do not necessarily “work” effectively in all settings. Therefore policy makers need to design P4P schemes that take into account the local circumstances of each particular system.

Our discussion has shown that there is no simple recipe to pay primary care physicians especially in under-funded developing systems affected by financial stringency and where cultural factors are likely to inhibit reform. Inherent trade-offs and unexpected effects are likely to become more salient in such a context. Due to the paucity of reliable empirical evidence in both countries, we stress the need for further research. Moreover, as reform is on-going – particularly evident in Romania – new empirical research should capture future developments. As the reform proceeds, it is necessary to evaluate its impact in a more systematic way on the basis of new empirical data.

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APPENDIX