

## *Chapter 1*

### **Reforming traditional health care provider payments**

*This chapter presents an overview of the predominant payment systems used in OECD countries to pay health care providers, notably in primary care, outpatient specialist care and hospital settings. These payment methods include fee-for-service (FFS), capitation, global budgets and salary and more recently, payment per case/diagnosis related groups in the hospital setting. Each payment method generates incentives, likely to affect provider behaviour and the predominant payment systems do not always provide the right incentives and tend to encourage volume of services and increases in health spending. These “traditional” ways of paying providers are often not well adapted to contemporary health system challenges, for instance the need to increase co-ordination of care, or provide high quality care for chronic diseases. While some OECD countries have begun to reform their traditional payments, others have introduced payment innovations that are more closely tied to key health system objectives of efficiency and quality of care.*

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## 1.1. Overview

Across OECD health systems a variety of policy levers are used to help meet health system objectives. One such important lever is the way health care providers are paid for services they deliver. Most often, health care providers are paid in the same way they always have been, using the traditional, dominant payment methods common across OECD health systems. However, these ways of paying providers – through fee-for-service (FFS), capitation, salary, global budget or more recently diagnosis-related groups (DRG) – are often poorly aligned with health system priorities. Rather than giving incentives to providers to improve quality, or deliver care more efficiently, these “traditional” payment methods come with a host of built-in incentives for unwanted consequences, for instance over-provision of services or inattention to clinical need.

Traditional payment systems are particularly challenged by the shift in care needs many health systems in OECD countries are currently confronted with. Ageing societies and changes in life styles such as unhealthy diet and physical inactivity have led to a rise in the prevalence of chronic conditions. In addition, more and more patients now suffer from multiple morbidities. New care models centered around the patient have been developed to address the needs of those requiring the co-ordination of activities among different health providers working in various settings. Traditionally, payment systems do little to support these new care models as health service provision is predominantly financed in a “silo” way. This implies a strict separation in the financing of the various health providers with few incentives for co-operation across sectors. Frequently, this contributes to fragmentation of care with poor patient experience and health outcome.

This chapter provides an overview of the traditional payment approaches used in OECD health systems, their use in different parts of health systems, and details some of their shortcomings leading to the question of why there is a need to reform health care provider payment systems. It then goes on to present some recent trends in select OECD countries, where traditional payment mechanisms like FFS or DRGs have been adapted to better align payment objectives with health system objectives. Finally, the chapter presents recent thinking about ways of transforming traditional payment systems, to the more radical and innovative approaches to payment reform in the subsequent chapters.

## 1.2. Why reform provider payment?

How providers are paid is one of the key policy levers that countries have to drive health system performance. Yet, payment systems too often do not pay for improvements in health outcomes, but rather reward providers for increased outputs. Likewise, budget constraints and the structure of the health care provider market in particular countries influence the extent to which payment systems encourage increased productivity or quality. Recent policy development and research have focussed on the idea that payment systems should evolve towards paying providers for the value they add to a patient’s health instead of paying for inputs or providers’ activities.

Overall, payment systems in many OECD countries have evolved beyond simple FFS and global or input-based budgets. Primary care payments have become more heterogeneous as countries seek to combine various elements of payments with differing intensities in out-patient care. FFS has been increasingly supplemented by additional payments to encourage gate keeping and co-ordination of care. Countries using capitation and budgets have added elements to drive quality or increase productivity. In hospitals, there has been a shift to financing on the basis of DRGs (Box 1.1), primarily to encourage providers to increase efficiency by reducing their production costs per case. Beyond these broad trends, there has been increasing experimentation with new ways of paying providers.

### Box 1.1. Diagnosis-related groups in OECD health systems

Payment per case based on diagnosis-related groups (DRG) were first implemented in the 1980s in the United States to finance inpatient services to address the shortcomings of previous dominant modes of payment such as FFS and prospective global budgets. Since then, hospital payment via DRG has become increasingly popular among OECD countries and beyond. DRGs are also increasingly used in low- and middle-income countries and the Asia-Pacific region.

Although DRG has frequently become synonymous with a mode of payment, it is first and foremost a patient classification system. The aim of this classification system is the grouping of patients with similar conditions requiring similar intensity of treatment into the same category. Typically, patients are allocated to one DRG based on their diagnoses and the procedures performed. In many DRG systems, severity is also taken into account when determining a DRG group. Frequently, each DRG group is associated with a relative weighting reflecting the cost of treatment clustered in this group against a benchmark group. Summing up the relative weights per patient treated in a given hospital over a time period defines the case-mix. Comparing the case-mix per hospital or region allows for an assessment of where the more severely affected, cost-intensive patients are treated. With few exceptions, most OECD countries have used existing DRG classifications and adapted them to their country-specific circumstances.

In countries where DRGs are used as a payment system, the relative weights per DRG are multiplied by a nominal base rate – a monetary conversion rate – to define the amount of money a hospital receives from the payer for the treatment of a patient. The nominal base rate can differ between regions and even between hospitals. The relative weights per DRG are calculated by countries using national cost-accounting data from all or a subset of hospitals, except where countries decided to import cost weights from other countries with the assumption that relative costs between the same patient groups would not differ between countries (Siok Swan et al., 2011). The average costs across hospitals (or a sub-set) are used as the basis of the calculation. Alternatively, in some health systems, DRGs are directly translated into a monetary tariff without the use of relative weighting.

DRG tariffs are frequently adjusted in case of outliers and, in many cases, hospitals can receive additional payments for costs which are not factored in a DRG tariff such as expensive medication or capital costs. A central characteristic of a DRG tariff is that it is known prospectively and independent of the length of stay of a patient. Hence, hospitals have a strong incentive to provide care efficiently and to discharge the patient as soon as possible after recovery.

*Source:* Kobel et al. (2011); Siok Swan et al. (2011); Mathauer and Wittenbecher (2012); Mathauer and Wittenbecher (2013); Kwon and Shon (2015).

In this context, it is worthwhile to take stock of the profile of payment systems in the OECD and highlight promising innovations that could shed light on how provider payments might evolve in the next ten years, and beyond.

The discussion in this publication focusses on financial incentives for providers and does not explore other forms of incentives of health professionals which also influence health system performance. Non-financial health system levers include performance feedback or public reporting of health professionals' performance to drive quality improvements and can be used as an element to accompany payment reforms or implemented independently (see for example *OECD Health Care Quality Review* series).

Like other economic actors, health providers can be expected to respond to financial incentives, however, they are not exclusively motivated by monetary considerations. Economic actors are also intrinsically motivated (Gneezy et al., 2011). They care about their reputation, can get satisfaction out of an activity they enjoy doing and may also be motivated by altruistic motives. This is important to bear in mind when discussing whether – paradoxically – financial incentives may have negative consequences for performance by


crowding out intrinsic motivation. This phenomenon has been observed in particular in cases where incentives were targeted at individuals to encourage contributions to public goods (Gneezy et al., 2011). With regards to health care provision this hypothesis suggests that economic incentives to encourage certain activities, for example, making bonus payments dependent on meeting quality objectives, could potentially backfire and lead to worse health outcomes. Health professionals may be demotivated by limitations in their clinical autonomy. Monetary incentives may also damage the self-esteem of doctors who perceive financial rewards for quality as a “de-valuation” of their professional code (Marshall and Harrison, 2005). Whether this translates into worse health care performance is unknown. Analysing impact of financial incentives in the P4P programme in the United Kingdom, McDonald et al. (2007) find no reduction in intrinsic motivation of general practitioners (GPs).

### 1.3. Traditional provider payment systems and misaligned incentives

#### *Traditional payment methods defined*

In OECD countries, the most commonly used approaches to pay health care providers are payment i) per consultation/procedure (FFS), ii) per registered patient (capitation), iii) for services carried out over a defined period of time (e.g. salary, global budget), and iv) payment per case (e.g. diagnosis-related groups). Some of the main features distinguishing these methods are whether payments are defined before health care delivery (prospective) or after (retrospective) and the extent to which different services are bundled in a single tariff (Table 1.1).

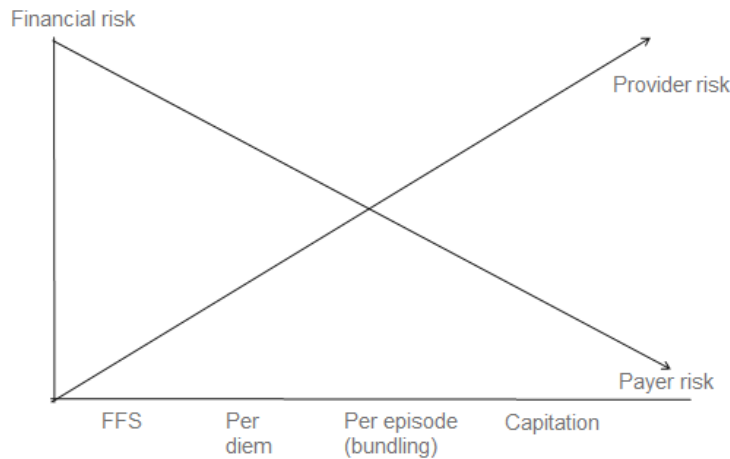
**Table 1.1. An overview of traditional payment methods in health care systems**

Payment method	Description	Setting	Degree of bundling
Fee-for-service (FFS)	Retrospective activity-based payment: billing of individual services and patient contacts	Predominant mode of payment for GPs and for outpatient specialist services	unbundled  bundled
Payment per case (diagnosis-related groups)	Prospective activity-based payment per patient, patient classified into groups based on diagnoses and resource use	Payment for hospital inpatient cases in many countries	
Capitation	Prospective lump-sum payment per enrolled patient covering a range of services	Mode of payment for GPs in a number of countries	
Global budget	Prospective lump-sum payment covering a range of services independent of actual volume provided	Payment for public hospitals in a number of countries	

*Note:* The predominant method of payment was determined by countries based on its share of total spending, number of contacts or number of providers (*OECD Health Systems Characteristics Survey 2012*).

*Source:* Adapted from Charlesworth et al. (2012).

FFS is the most unbundled payment as every activity performed under this scheme can be billed separately. Global budgets on the other hand represent the most bundled form of payment with a lump sum covering a range of services independent of actual volume provided. Another important characteristic of payment mechanisms refers to the extent health providers are exposed to the financial risk of service provision (Figure 1.1).

**Figure 1.1. Exposure to financial risk for payers and providers**

Source: Adapted from Jegers et al. (2002).

From the perspective of a general practitioner, FFS and capitation are at the opposing ends of the risk spectrum. FFS schemes bear no financial risk to the provider while the payer is exposed to all risk. This means the payer encounters the risk of covering all costs for service provision in case the patient requires more health care than envisaged. Conversely, under capitation schemes it is the provider who is exposed to most risk as he will only receive one payment but may have to face high number of visits per patient without additional payments.

Other types of “traditional” payment such as line-item budgets or per diem payments are still marginally used in OECD health systems, but have been mostly phased out from systems because of the negative incentives associated with them. Indeed, payment using per diems or “bed days” is widely understood to incentivise excessively long lengths of stay in inpatient settings, presenting a greater financial burden to the system with no therapeutic benefit to the patient. Per diem payments still remain more common in some settings where DRG implementation has been particularly challenging, notably mental health care (OECD, 2014a) and long-term care.

Depending on the health systems context and organisation, payments are made out to individuals or various types of entities for the provision of specific types of service. Primary care services could be provided by a self-employed general practitioner, by a small practice combining several health professionals, or a multi-disciplinary clinic. The provider of specialist or tertiary services is often a hospital, but could also be an independently practicing specialist. If a payment is made out to an entity, it will in turn compensate the health professionals. Incentives created by the payment to the institution and to actual provider can conflict.

### ***Traditional and widely used provider payment mechanisms often bring unwanted incentives***

There is little doubt that the overwhelming majority of health providers care about the well-being of their patients and are motivated by improving their health status, but it is generally acknowledged that they also respond to financial incentives (McGuire, 2000; Chandra et al., 2012). Hence, health providers adjust their clinical decisions according to the way they are paid. This can incentivise health providers to an inefficient over- or under-

provision of medical services. The impact of traditional payment systems on provider behaviour has been shown theoretically as well as empirically (Gosden et al., 2000; Street et al., 2011; Iverson, 2015; or Murakami and Lorenzoni, 2015). All modes of payment have strengths and weaknesses when it comes to meeting policy objectives and in their “pure” form; that is, as standalone payment methods without additional forms of blended payments or adjustments, traditional modes of payment face particular challenges to meet some of today’s health system priorities. Table 1.2 displays the expected effects of FFS, capitation, global budget and case-based payment (diagnosis-related groups) on some key dimensions of health system performance.

**Table 1.2. Expected impact of payment systems on dimensions of health system performance**

Payment method	Activity		Expenditure control	Technical efficiency	Quality
	Number of cases	Number of services/case			
Fee-for-service	↑	↑	↓	0	0
DRG-based payment	↑	↓	0	↑	0
Global budget	↓	↓	↑	0	0
Capitation	↑	↓	↑	↑	0

Note: Legend: ↑ increase; ↓ decrease; 0 neutral or unclear.

Source: Adapted from Geissler et al. (2011).

Table 1.3 provides a summary of some expected advantages and some possible unintended consequences of traditional payment systems in their pure form. The impact of payment systems also depend in part on the setting in which they are used and other policy measures that can affect care delivery and utilisation.

**Table 1.3. Theoretical advantages and disadvantages of traditional payment systems**

	FFS	Capitation	Global budget	DRG
Reasons to implement	<ul style="list-style-type: none"> <li>• Better compliance to guidelines with required number of visits</li> <li>• Quicker uptake of innovative activities</li> <li>• Less risk selection issues</li> <li>• Improving access</li> <li>• Transparency</li> </ul>	<ul style="list-style-type: none"> <li>• Cost control</li> <li>• Low transaction costs</li> <li>• Higher focus on preventive activities</li> </ul>	<ul style="list-style-type: none"> <li>• Cost control</li> <li>• Low transaction cost</li> </ul>	<ul style="list-style-type: none"> <li>• Increasing activity when replacing global budget</li> <li>• Decreasing activity when replacing FFS</li> <li>• Increased technical efficiency</li> <li>• Reduction in average length of stay</li> <li>• Equity</li> <li>• Reduction in waiting time</li> <li>• Transparency</li> </ul>
Possible unintended consequences	<ul style="list-style-type: none"> <li>• High clinical activity (number of visits and services per patients)</li> <li>• Associated with higher costs</li> <li>• High transaction costs</li> </ul>	<ul style="list-style-type: none"> <li>• Increase in number of patients</li> <li>• Possible skimping of care (fewer visits per patient and less activity per patient)</li> <li>• Quicker referrals to other providers</li> <li>• Possible risk selection</li> </ul>	<ul style="list-style-type: none"> <li>• Rationing of services with increased waiting time</li> <li>• Possible skimping of care (fewer visits per patient and less activity per patient)</li> <li>• Budget allocation may be less transparent</li> </ul>	<ul style="list-style-type: none"> <li>• Hospitals trying to attract additional patients</li> <li>• Focus on more profitable activities</li> <li>• Associated with higher total costs</li> <li>• High transaction costs</li> <li>• Early discharges</li> <li>• Upcoding</li> <li>• Possible risk selection</li> </ul>

Source: Authors’ compilation.

### *Fee-for-service can lead to volume and cost inflation*

FFS encourages the provision of high volumes of services. Theoretically, providers have the incentive to increase the number of patients or patient visits and also the number of services performed per patient if no additional activity-limiting measures are in place. This hypothesis was confirmed in a number of studies. For example, a systematic review of studies by Gosden et al. (2000) concluded that in primary care the number of visits was higher under a FFS scheme compared to capitation or for salaried physicians. The same result was found by Peckham and Glousia (2014). In Norway, prior to 2001, primary care physicians paid through a mix of FFS and block grant were found to have a higher number of visits than their salaried colleagues (Sorensen and Grytten, 2003). Similar results are found in Canada (Dumont et al., 2008; Kantarevic and Kralj, 2013). One study in the province of Ontario found that physicians under FFS relative to other payment schemes saw more patients (Devlin and Sarma, 2008). A cross-sectional survey of a sample of physicians in the United States found that physicians paid by capitation were more likely to be conservative in the use of resources than physicians paid using FFS (Shen et al., 2004). If no volume caps are in place, FFS can lead to inefficient over-provision of services and thus, rising costs.

### *Capitation and global budget impose limits on cost and volume*

Capitation or global budgets help to control costs as they do not encourage increasing volumes of services, but they come with other challenges. In the case of capitation, providers are encouraged to increase the number of enrolled patients (within the bounds of any cap on patient numbers), but also to reduce the number of services provided to each of them. This can increase technical efficiency in service provision as it encourages providers to make better use of available resources. Yet, capitation payments are associated with a level of clinical activity below patient preferences making them not socially optimal (Iverson, 2015).

The incentives for providers paid via global budgets and salaried physicians are similar. Providers receiving a global budget and salaried professionals are both encouraged to provide fewer services than under FFS. Unlike capitation, global budgets do not motivate physicians to increase the number of patients. Global budgets are not associated with an efficient use of resources if they are based on historic spending or inputs used. Global budgets and salaries are effective in putting a cap on provider costs, but this may in turn lead to rationing of services and extended waiting times.

### *Quality objectives not easily met by traditional payment systems*

Incentives to improve the quality of care are not inherent in FFS, capitation and global budget (salaries) and their effects on quality are not clear. In theory, capitation payments should encourage health providers to engage patients in preventive activities to avoid more costly treatment later. But if limited to the primary care sector, capitation payments can incentivise GPs to refer patients early to less appropriate care settings. This may translate in reduced quality and negative patient experience.

FFS schemes can encourage GPs to comply with guidelines in case these foresee a recommended number of visits. This finding was reported by Gosden et al. (2000) comparing the compliance to guidelines for GPs paid by FFS to those paid under capitation or salaried physicians. Gosden et al. (2000) also found fewer referrals and more continuity of care for physicians paid for by FFS. Sorbero et al. (2003) find that chronic patients are less likely to switch primary care physicians when their physician is paid by FFS than under

capitation. This could be an indication of better care quality, at least in terms of patient experience. Analysing physician's behaviour under managed care contracts in the United States, Melichar (2009) finds that physicians spend less time with those patients for whom they receive a capitation than with those patients for whom they are paid for differently. Whether this is due to skimping of care for capitated patients or due to a reduction of unnecessary services that do not affect health outcomes – and thus improving efficiency – is not clear. In a systematic review of the impact of payment systems in dental care, Brocklehurst et al. (2013) found evidence that dentists under capitation provide more advice on prevention, but had less frequent appointments with their patients and restored their teeth at later stages of the disease process than dentists paid under alternative schemes. However, to what extent physicians under FFS are engaging in preventive activity will also depend on the relative prices in the fee schedule. In the case of the United States, the National Commission on Physician Payment reform recommended to increase the fees for preventive activities and other undervalued services at the expense of procedural diagnosis to address a perceived under-provision of specific services (Schroeder and Frist, 2013).

#### *FFS with no apparent access problem*

FFS is a relatively transparent way of paying providers for listed services and can be adapted relatively easy to changes in care provision, such as the addition of a new pharmaceutical, service or procedure. From an administrative point of view, billing each activity per patient is typically more burdensome for providers with higher transaction costs than other more bundled modes of payment, such as capitation or global budgets.

Typically, there are few issues with access to care under a FFS system. Physicians have no reason to select or cherry-pick patients if they are rewarded for all services they provide. This is different under capitation or global budget. If capitated payments are not risk-adjusted, providers will try to select positive risks by enrolling predominantly healthy patients. Potentially, this presents a real barrier to access for chronic patients. Under global budgets cherry-picking can also be an issue, as well as rationing of services and increased waiting times.

Overall, a number of authors advocate the use of blended payment, for example a mix of FFS and capitation in primary care (Iverson, 2015) to achieve the socially optimal volume of services. While many countries experiment with blended forms of payment in primary care, there is no clear evidence on the optimal blend of payment schemes (Peckham and Glousia, 2014; Rudoler et al., 2015).

#### *Payment per case focusses on efficiency*

In the hospital sector, payment per case such as for diagnosis-related groups (DRG) can have mixed incentives, depending on the design and implementation in a payment system. A prime motivation behind the implementation is to improve the efficient use of hospital resources. Receiving a single tariff per patient, hospitals will be eager to reduce their production costs to generate profits.

Reviewing a wide range of studies, Street et al. (2011) conclude that in the majority of cases, the introduction of DRG systems led to higher total costs, whereas the growth in total costs slowed down after the introduction of DRG in the United States. Summarising recent evidence in OECD countries, Murakami and Lorenzoni (2015) report mixed evidence with regards to a decrease of costs per discharge.

A reduction of the average length of stay after the implementation of DRG-based payments – at least initially – is generally found in OECD countries and beyond (Moreno-



Serra and Wagstaff, 2010; Street et al., 2011; Murakami and Lorenzoni, 2015). The impact on overall activity and costs is less clear. Depending on the mode of payment DRG payments were seeking to replace, this change has led to an increase (Australia, Denmark, England, France, Germany, Norway, and Spain) or a decrease (United States) in hospital activity (Street et al., 2011; Schreyögg et al., 2014). This suggests that hospitalisation volumes increase in countries where case-based payments replace general budgets or where DRG are used to set hospital budgets. However, analysing data from Central and Eastern European countries and Central Asia, Moreno-Serra and Wagstaff (2010) find no increase in hospital admission for countries that replaced historical budgets with case-based payment. Activity tends to decrease where DRG replace cost-based reimbursement schemes such as FFS.

The possible rise in hospital activity after introduction of case-based payment in a number of OECD countries may be systematic. There is some evidence that hospitals bring up activity in domains which are most profitable for hospitals (Busse et al., 2011). This is the case for those clinical areas where the DRG tariffs based on average hospital costs lie above the cost of service provision for a particular hospital. There is also some evidence of spill-over effects to other sectors as a consequence of the introduction of case-based payment. This can refer to a general increase in discharges to post-acute facilities as concluded by Palmer et al. (2014) in a systematic review of recent evidence from ten OECD countries, or to shifts from inpatient to day care or outpatient settings (Street et al., 2011). Hence, the introduction of DRG can influence total hospitals costs as well as health spending in general, but whether the effect is positive or negative will also depend on the payment system case-based payment is seeking to replace. Street et al. (2011) conclude that in the majority of cases the introduction of DRG systems has led to higher total costs whereas total cost growth was slowed down after introduction of DRG in the United States. Wagstaff and Moreno (2010), too, find overall increased health spending after the introduction of case-based payment.

The reduction of waiting times is also frequently named as an objective when introducing case-based payment in hospitals. This has been achieved for example in Sweden (Serden, 2011). However, causality may be difficult to establish if the introduction of case-based payment is accompanied with other initiatives to bring down waiting times, as seen in England (Appleby et al., 2012).

### *Quality effects are less clear for payment per case*

The impact of the introduction of DRGs on quality is unclear. DRGs make payment transparent, which should lead to a greater standardisation of care and improved comparability (Or and Häkkinen, 2011). Striving to find efficiency gains, DRG implementation may also lead to a faster adoption of new technology. Confronted with a single tariff, hospitals in a competitive environment may start to compete for patients by driving up quality. On the other hand, in their quest to achieve efficiency gains, hospitals may skimp on care and discharge patients too early if paid under a DRG regime. Supplementing DRGs with additional payments for outliers, high cost input or the adoption of new technology can be a policy measure to address issues around under-treatment or risk selection by hospitals (Appleby et al., 2012).

Summarising the existing studies, Or and Häkkinen (2011) report that there is evidence in the United States that the implementation of DRG has led to improvements in organisational efficiency and quality of care in some areas by developing home-based care and ambulatory care options. However, they also found some limited evidence for increased readmission and mortalities in the United States. They found no confirmation of

these negative effects in Europe. The review of Palmer et al. (2014) suggests a possible increase in readmission but no consistent impact on mortality in acute or post-acute care. Summarising recent evidence, Murakami and Lorenzoni (2015) could not observe any general detrimental impact on quality of care after the introduction of case-based payment, but highlight that existing evidence is very limited.

#### *Administrative burden with DRGs*

DRG payments are administratively very complex and hospitals have incentives to “up-code” their patients to overstate the severity of a case to trigger higher payments. Up-coding was identified as a concern in France, for example, where outpatient cases were wrongly recorded as day cases instead of outpatient care (Or and Häkkinen, 2011). Typically, up-coding can be addressed by better auditing and systematic control of hospital billing.

#### *Wider health system effects*

There may also be a possible interaction between payment of the institution and payment of health professionals working within the institution. In some cases, payment schemes for the institution delivering care and professionals working in this institution may bear conflicting incentives, for instance a hospital that receives case-based payments (volume incentives) with salaried physicians (no volume incentives) but little is known of any potential overall effect.

In general, the strengths and weaknesses of traditional payment systems in their “pure” form led countries to respond in three ways: i) blending payment methods to counterbalance their individual shortcomings; ii) adapting traditional modes of payment in an intelligent way; iii) developing new innovative ways to pay providers.

### **1.4. The use of blended payment methods across health care settings and recent trends**

Despite their inherent challenges, traditional payment methods remain the main mode of paying providers in OECD countries. They are used to varying extents in OECD health systems, and their implementation or ongoing use is usually determined by the care setting, the type of provider and other health system characteristics.

Clear patterns in the way traditional payment methods are used can be observed across OECD health systems. Table 1.4 summarises the main modes of payment by countries’ key purchasers in the year 2012. Notably, capitation is used exclusively in primary care, while FFS is common for both primary and outpatient specialist care. In primary care, and to a slightly lesser extent in outpatient specialist care, many countries employ more than one traditional payment mechanism simultaneously. Compared to the results of the 2008 OECD Health Systems Characteristics Survey, the number of countries that use a mix of payment systems for primary care and outpatient specialist care appears to be growing (Paris et al., 2010). In inpatient care, too, most countries apply a mix of payment schemes. For service provision in public hospitals DRGs and global budgets are the most commonly used main methods of payment. The use of multiple payment forms for given care setting can mean either a blending of payments (i.e. a GP practice which is paid through a combination of FFS and P4P) or different providers paid in different ways (i.e. some primary care clinics paid by capitation, while others are paid with FFS). Finally it can mean that different key payers use different payment methods for the same type of service.

**Table 1.4. Use of traditional forms of provider payment by care setting in OECD countries**

	Provider payment		
	Primary care	Outpatient specialist care	Inpatient <sup>1</sup>
Australia	FFS/P4P	FFS	DRG
Austria	FFS	FFS	DRG
Belgium	CAP/FFS	FFS	Global budget
Canada	CAP/FFS/P4P	FFS/Global Budget/Other	Global budget
Chile	CAP/FFS	FFS/Global Budget	Procedure service
Czech Republic	CAP/FFS/P4P	FFS	DRG
Denmark	CAP/FFS	Other	Global budget
Estonia	CAP/FFS/P4P/Global	FFS	DRG
Finland	Global Budget	FFS	DRG
France	FFS/P4P/Other	FFS/P4P/Other	DRG
Germany	FFS	FFS	DRG
Greece	FFS	FFS	DRG
Hungary	CAP/P4P/Global Budget	FFS	DRG
Iceland	Global Budget	FFS	Global budget
Ireland	CAP/FFS	Global Budget	Global budget
Israel	CAP/Global Budget	Global Budget	Procedure service
Italy	CAP	FFS/Global Budget	Global budget
Japan <sup>2</sup>	FFS	FFS	DRG/Procedure service
Korea <sup>3</sup>	FFS/P4P	FFS/P4P	Procedure service
Luxembourg	FFS	FFS	Global budget
Mexico	CAP/Global Budget	FFS/Global Budget	Global budget
Netherlands	CAP/FFS/P4P/Global	FFS/P4P	DRG
New Zealand	CAP/FFS/P4P	Global Budget	Global budget
Norway	CAP/FFS	FFS/Global Budget/Other	Global budget
Poland	CAP	Other	DRG
Portugal	CAP/P4P/Global Budget	P4P/Global Budget	Global budget
Slovak Republic	CAP/FFS	FFS	Procedure service
Slovenia	CAP/FFS	FFS	DRG
Spain	CAP/P4P	FFS/Global Budget	Line-item remuneration
Sweden	CAP/FFS/P4P	FFS/P4P/Global Budget	Global budget
Switzerland	CAP/FFS	FFS	DRG
Turkey	CAP/P4P	Global Budget	Global budget
United Kingdom	CAP/FFS/P4P/Other	P4P/Global Budget/Other	DRG
United States <sup>4</sup>	CAP/FFS/P4P/Other	FFS/P4P/Global Budget	DRG

*Note:* CAP refers to capitation; FFS refers to fee-for-service; P4P refers to pay for performance. The predominant method of payment presented was determined by countries based on its share of total spending, number of contacts or number of providers. Table 1.4 displays all main modes of payment for primary care and outpatient care by key purchasers but only the most important method to pay public hospitals in inpatient care.

1. Refers to public hospitals (only the main mode of payment identified).
2. No predominant mode of payment exists for inpatient care services in public hospitals in Japan.
3. It is difficult to distinguish between primary care and outpatient specialist care in Korea.
4. Information on inpatient payment refers to the Medicare programme.

*Source:* OECD Health Systems Characteristics Survey 2012 and OECD Secretariat's estimates.

In primary care, blended forms of payment are used in 25 out of 34 OECD countries. Only nine countries use a single payment form for primary care (capitation, FFS or global budget). All other countries report that at least two forms of payment are used for primary care, either with different payment mechanisms applied to different primary care providers, or individual providers being paid through a blended mix of payment types. The increasingly blended forms of payment in primary care likely indicate a shift towards combining different elements of payments as incentives to meet more specific health policy objectives, or to balance the negative and positive incentives of different payment mechanisms. In Denmark, for example, GPs receive roughly one third of their income from capitation and the remaining from FFS. Service paid via FFS includes after-hours consultations, phone consultations and home visits (Olejaz et al., 2012). In France, the vast majority of income of primary care physicians stems from FFS but additional annual capitated payments for patients with long-term conditions (“*affection de longue durée*”) and bonus payments for meeting pre-defined quality targets are also possible. These pay-for-performance (P4P) elements complement traditional payment modes in primary care in 14 countries (see Chapter 2).

The predominant payment method for outpatient specialist care is FFS, used in 26 out of 34 countries. A much smaller variety of payment types are used within individual countries’ outpatient specialist care sector than in the primary care sector. Nevertheless some countries such as Sweden and the United Kingdom have incorporated global budgets for outpatient specialist care along with combinations of P4P. Canada, Norway, Sweden, the United Kingdom and the United States use three main forms of payment for outpatient specialist care.

In the acute inpatient sector, 16 out of 34 countries use case-based funding such as DRG payments as the main method to pay public hospitals. Payment per case is typically associated with hospitals, mainly for inpatient curative treatment but increasingly for day cases, outpatient or rehabilitative treatment. It can be considered as a bundled payment as it combines in a single tariff the payment of a range of services provided during the patient’s stay. In about a dozen OECD countries, global budgets are the predominant mode of payment for hospital services. Less common is the use of line-item budgets and payment by procedure as the main form to pay public hospitals.

Some differences in the use of payment mechanisms can be observed between health systems with residence-based health coverage (e.g. the National Health Service in England) and those where coverage is based on contributory payments (e.g. Statutory Health Insurance in Germany). There appears to be a stronger tendency towards DRG-type payments in countries with contributory coverage, while in residence-based coverage systems, there appears to be a tendency towards broader forms of payment for inpatient services in public hospitals (e.g. global budget), though DRG-type payments are also used (Australia, Finland, United Kingdom). Even in systems that predominantly use global budgets to pay public hospitals, DRGs may still exist. In some cases, countries use DRGs as a patient classification tool to allocate budgets rather than explicitly for payment.

These differences in payment between contributory-based and residence-based health systems may in part be related to some of the main financing dimensions of health systems. Countries with contributory-based coverage provided by health insurers may have a more explicit benefit basket where each service has an associated tariff. Differences can also be related to the way services are purchased in health systems. In countries with contributory-based coverage, there typically exists a clear split between purchaser and provider. Here, billing health insurers for the provided services via DRG can be more transparent than negotiating a global budget. On the other hand, in health systems with residence-based coverage, the provider and purchaser of hospital services can be identical (e.g. the Health

Service Executive in Ireland). In these cases, allocating global budgets may be administratively simpler than billing each inpatient case.

Overall, the vast majority of OECD countries use mixed modes to pay for inpatient care in hospitals (Paris et al., 2010). This can mean a combination of DRG and global budgets but also include FFS payments for certain procedures, per-diem rates or line-item payment. An ongoing trend, however, seems to be the increasing interest to implement case-based payment systems.

In Ireland, for example, the implementation of DRG (also called activity-based funding) as a mode of payment is a central element of a more substantial health system reform shifting population coverage from residence-based entitlement towards universal health insurance (UHI)<sup>1</sup> provided by multiple, competing insurers (Department of Health, 2012). Until 2013 hospitals in Ireland were paid for by block grants with some retrospective adjustments for case-mix irrespective of their actual activity. The move towards activity-based funding is to ensure a fairer system of resource allocation where hospitals are encouraged to provide high quality health care, to improve efficiency and increase transparency in the provision of hospital services (Department of Health, 2013).

Greece started using DRGs as part of a large public sector reform which followed the financial and economic crisis. In the health sector, Greece committed to a series of measures to keep public health spending below 6% of GDP, including the modernising management and accounting systems of the hospital sector (European Commission, 2012). Before 2011, public Greek hospitals had fixed budgets covering operational costs and investments but were paid retrospectively for the services they delivered, with little incentive to stay within budget (Economou, 2015). In 2011, Greece began to work on the implementation of a DRG system adapted to the Greek context based on the German DRG system. The main objectives of the introduction of DRG were a reduction of operational expenditures with a specific focus on controlling prices of medical products and services and pharmaceutical consumption; accelerating the invoicing procedure and revenue collection; reducing annual hospital deficits; and balancing expenditure (Polyzos et al., 2013).

In Korea, the move towards case-based payment was more gradual and had to be adapted, mainly because of strong provider resistance. A DRG system was adopted in 2002 to replace a FFS system following concerns about rapidly increasing health care costs in the wake of the introduction of universal health care coverage. The introduction of the K-DRG payment system was limited to seven disease categories referring to a total of 78 DRGs (Kwon and Shon, 2015). Although payment under DRG was more generous compared to fee for service, uptake by hospitals was slow. Hospitals feared constraints in clinical autonomy by not rewarding the use of certain technologies and practices, and that the introduction of DRGs would lead to centrally-driven cost control and a deterioration of quality of care (OECD, 2012). Billing using DRGs was made mandatory to all hospitals and clinics in 2013, but limited to seven disease categories (Kwon and Shon, 2015). In 2009, Korea introduced an alternative payment system called the Korean Case Payment System (KCPS) or “new DRG” which responds to some of the criticism of the K-DRG payment system. Payment under the KCPS combines a DRG base payment with FFS and per diem components. The KCPS can be considered as a move towards more bundled hospital payment as it aims to replace a predominant FFS regime. The KCPS is applied to 550 disease categories and covers around 95% of all inpatient DRG groups of the K-DRG system. In 2013, KCPS was used in 40 local government hospitals (Kwon and Shon, 2015).

As in the case of Korea, the shift towards case-based payment in Israel has been gradual but has gained momentum in recent years (Box 1.2).

### Box 1.2. Reforming hospital payment in Israel with data constraints

Israel has been moving towards case-based financing in hospitals over the past decade. Payment per case was introduced on a small scale in the 1990s, but the shift towards more activity-based funding has gained momentum in recent years. Historically, per diem payments (to government hospitals) and FFS (to private hospitals) were the dominant modes of payment in the Israeli hospital sector. The use of per diems is somewhat problematic as the current rates are still based on calculations carried out in 1985. The extent to which these per diems still reflect current cost for treatments is unclear, and the disconnect between payments and costs can lead to over- and under-provision of care.

Another issue that led to the payment reform was that public hospitals were facing growing financial deficits. This is partly due to the fact that private hospitals do not provide emergency care and can select low risk patients for treatment, leaving it up to public hospitals to treat the more severe and costly cases.

In 2002, Israel started a reform of hospital payment which aimed to: reimburse public hospitals in a fairer way; reduce inefficiencies caused by the misalignment between prices and costs; strengthen public hospitals while competing with private hospitals; and improve the level of data collection on activity and quality of care. The incremental change in the payment system is part of a broader health reform aimed at shortening waiting times, increasing hospital activity and using hospital resources more efficiently.

Israel adopted a payment system based on procedures because data on diagnosis were rarely available in such a way that enabled the use of DRGs. Patients are clustered into groups (procedure related groups – PRG) according to the main procedures performed in the course of their treatment. The individual PRG prices are the result of an in-depth costing procedure and extensive discussion among stakeholders. To overcome any possible opposition, it was decided from the outset to include the main actors (Ministry of Health, Ministry of Finance, the four health insurers and hospitals) in the payment reform.

The move towards PRGs was designed as a zero sum game, with no additional funding into the hospital system. This had a direct impact on the price setting of the individual PRGs. If prices of PRGs have to be adjusted downward as a result of budget neutrality, they may no longer adequately reflect their costs which may disincentivise hospitals to provide certain procedures. This reform replaced per diem payment for interventional procedures, while for non-interventional procedures per diem payment still applied.

By 2012, 280 PRGs had been defined, accounting for about 50% of all procedures. The objective was to have 500 PRG by 2015. The share of PRG in total public hospital revenues increased from 16% to 23% between 2003 and 2012, while the share of per diem went down from 47% to 39% over the same period with the remaining revenues mainly stemming from FFS for ambulatory and emergency care. PRGs will need to be developed further, notably, as they currently do not take the severity of patients' condition into account.

Likely due to the incremental introduction of PRG payments and involvement of all stakeholders from the outset, the move towards activity-based funding has been widely supported in Israel. In light of possible alternatives such as importing a DRG system, the development of a classification based on procedural information was considered to be the easiest and least costly alternative. It is also believed that the PRG creates incentives for hospitals to promote the use of advanced technology. A key drawback is that non-interventional procedures are still reimbursed on a per diem basis. The current lack of granularity at the PRG level to take into account different levels of severity of patients' conditions could lead to cherry-picking, encouraging hospitals to treat less complex patient cases. Payment based on procedures also incentivises the over-provision of services.

The reform has led to general improvement and harmonisation of data collection in hospitals, and has motivated hospitals to keep better track of their activities. Hospitals now register diagnosis codes (ICD-9) and procedures performed, which was not required under a per diem payment scheme. The method of micro-costing PRGs is currently reviewed to see whether costs for overhead and medical staff are accurately attributed to individual PRGs. The Ministry has also launched some additional initiatives aimed at improving data availability including a national programme to measure quality in hospitals and the collection of data on waiting times in non-profit hospitals.

No systematic evaluation of the reform has yet been carried out. Based on some preliminary data collected over the period of the PRG implementation, the Israeli Ministry of Health concluded that the PRG has generated some efficiency gains. Average length of stay has gone down, particularly in those departments that previously recorded above average length of stay.

*Source:* Brammli-Greenberg et al. (2016).

More innovative approaches to implement case-based payments going beyond standard DRG implementation and other ways to bundle activities into a single tariff is discussed in Chapter 3.

### **1.5. Adapting traditional payment to ensure it is fit for purpose in contemporary health systems**

Most OECD countries have adapted traditional payment systems to overcome some of the theoretical disadvantages and make better use of them.

In primary care, nearly all OECD countries adjust the capitation payment made to providers for risk factors to disincentivise skimping of care and cherry-picking. Most countries consider more than one risk dimension in their adjustment procedure. In the calculation of capitation payments 18 countries adjust for age followed by gender (nine countries), health status (nine countries) and utilisation of services (five countries). Twelve countries adjust for other risk factors, such as geographical or socioeconomic factors. Only in Belgium, Denmark, Mexico and Norway capitation is not adjusted. But in these countries, capitation is complemented with an additional mode of payment (OECD, 2014b).

In many cases, global budgets these have evolved beyond resource-based or historical budgets. In hospitals, budget allocation is frequently done on the basis of case-mix as measured via DRGs. This is true, for example, in Portugal (where the case mix weight is around 50% of the total hospital budget) and in some Swedish regions. In addition to making budget setting more transparent, this can also help to benchmark hospitals and incentivise the efficient use of hospital resources. Budget allocation to primary health care clinics in Iceland is currently reformed to make it more equitable and transparent and to serve as a single financing model for both, public and private clinics. An additional aim is to increase the number of primary care contacts and avoid the number of specialist visits. Under the reform, budget appropriation will account for age, gender, care needs based on socio-economic factors with future plans to also factor in the disease burden in setting budgets for primary care clinics.

Some countries with predominantly activity-based financing such as FFS or DRG have introduced volume thresholds to limit spending increases. In primary care, this is true for example in Germany where payment for services financed from public insurers is reduced once physicians have surpassed a quarterly defined volume threshold per practice. To limit hospital spending, some countries with activity-based financing including the Czech Republic, Israel and Germany have introduced reduced tariffs for treatment once a pre-defined level of volume is surpassed (de Lagasnerie et al., 2015). The similar principle exists in England where reduced tariffs are paid for all emergency activity beyond the 2008/09 threshold (Charlesworth et al., 2012). To reduce any incentives for hospitals to generate profits from premature discharges and higher readmission rates a number of countries including England (United Kingdom), Germany and the United States have defined conditions under which they do not pay for readmission if it occurs within a certain time span (e.g. 30 days) (Appleby et al., 2012). In Japan, where FFS is used across the health system, cost control, more efficient use resources and improvement in quality are sought through frequent updates in the fee schedule. This can include tariff reductions to disincentivise undesired activity, such as the provision of non-acute care in hospitals or activities that have seen recent volume increases. Alternatively, fees are increased to shift resources to areas with more funding needs. In the fee schedule's recent revisions, this

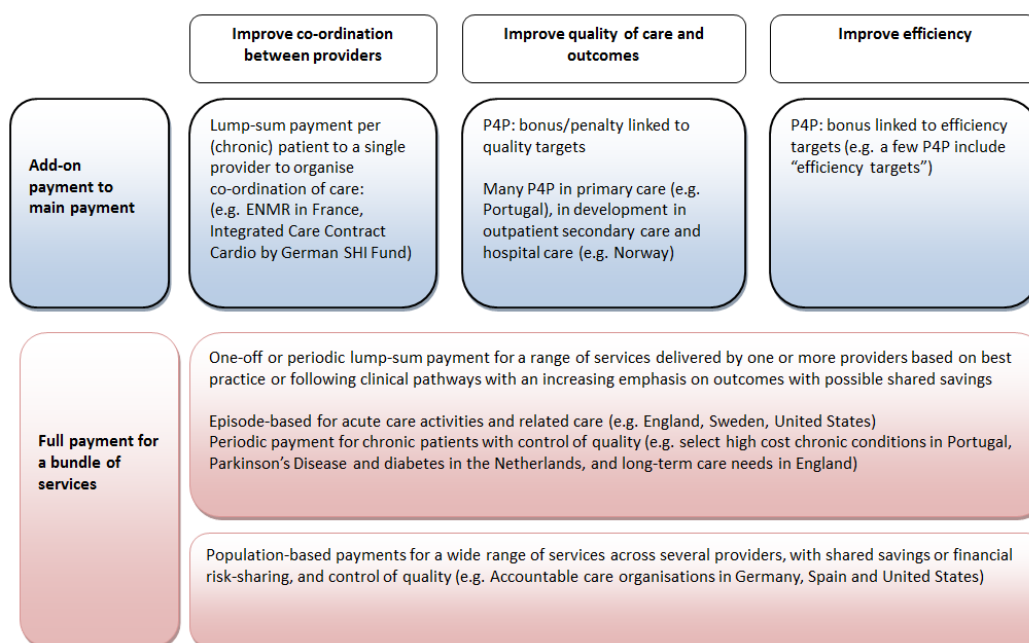
approach was taken for obstetric, paediatric, emergency and surgical care and mental health care (OECD, 2015).

Over and above adjusting traditional modes of payment to better align them with clearly identified policy objectives, countries continue to reform payment systems more comprehensively by moving from one traditional payment mode to embarking on more significant changes in payment.

## 1.6. Innovations in health care provider payments

A number of OECD countries are exploring innovative ways to paying health providers by moving beyond blended or adapted approaches. In particular, three distinct payment trends presented in this publication aim to address all or some contemporary health policy objectives: improve co-ordination, improve quality and outcomes; improve efficiency (Figure 1.2). Payment innovations differ in their complexity: add-on payments which are frequently done ex-post are more limited in scope, payment innovations around bundled and population-based payments demand more full-scale reform, and are more complex in design and implementation. In the chapters that follow, this publication explores the way in which such payment reforms have been introduced in OECD countries:

**Figure 1.2. Innovative payment schemes in OECD countries**



Source: Authors' compilation.



1. Add-on payments made on top of existing payment methods for co-ordination activities (as seen in France and Germany); or pay-for-performance (P4P), focussed on improving quality of care implemented in many countries (e.g. Portugal and Norway);
2. Bundled episode-based payments for specific activities of acute care based on best practice or following clinical pathways (e.g. England and Sweden); and bundled payments for the care of chronic conditions with quality requirements across delivery settings (e.g. diabetes, HIV/AIDS), as seen in the Netherlands and Portugal;
3. Population-based payment to cover a wide range of services by various providers who are encouraged to control costs and meet quality standards (e.g. United States, Germany and Spain).

## 1.7. Conclusion

The most commonly used traditional modes of payment, FFS, capitation, global budgets, salaries and DRGs are often poorly aligned with some of the contemporary health system priorities. Policy makers are in particular concerned that they do little to incentivise the efficient use of resources, promote the co-ordination between health providers and improve health care quality and outcomes. The strengths and weaknesses of traditional payment systems in their “pure” form led countries to respond in three ways: i) blending payment methods to counterbalance their individual shortcomings; ii) adapting traditional modes of payment in an intelligent way; iii) developing new innovative ways to pay providers.

The vast majority of countries use blended payment systems in primary care and hospital care, fewer for outpatient specialist care. In primary care, combining capitation with FFS for specific activities is frequently done. For inpatient care, the trend towards case-based financing such as DRG continues (e.g. Ireland, Greece or Israel). In many countries, hospitals receive additional financing via block grants or FFS.

Many countries have adapted their traditional payment systems to ensure they are fit for purpose. Most countries that rely on capitation payments in primary care adjust it for risk factors (e.g. age, gender, health status) to disincentivise skimping of care and cherry-picking, and the majority of them consider more than one risk dimension in their adjustment procedure. In hospitals, budget allocation is frequently done on the basis of case-mix as measured via DRGs instead of resource-based or historical budgets. Some countries with predominantly activity-based financing such as FFS or DRG have introduced volume thresholds to limit spending increases. This means that tariffs are reduced for all activity over a pre-defined level of volume. Similarly, some countries do not pay for readmission in hospitals if it occurs within a certain time span to reduce any incentives for hospitals to generate profits from premature discharges.

A number of OECD countries are exploring innovative ways to paying health providers by moving beyond blended or adapted approaches to meet health system objectives. These innovations refer to add-on payments made for co-ordination activities or to reward improvement in care quality of efficiency, bundled payments for episodes of care or for patients with chronic conditions, and population-based bundled payments where groups of providers are responsible for the delivery of all or the vast majority of health care services for a defined group of the population.

## Note

1. UHI will define a standard package of services for the whole population and also introduce universal primary care, with GP care free at the point of use (Department of Health, 2012).

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