
5 Payment by Results

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There is a wide range of mechanisms that can be used to pay for hospital care. In the United Kingdom, hospitals have historically been paid a fixed budget based on the previous years' costs and activity, sometimes adjusted for planned changes in services (Rafferty *et al* 1996). During the first internal market in the 1990s, purchasers mostly used block contracts – a negotiated amount that was paid regardless of volume, although there was some room to renegotiate the terms following delivery of the services – or cost and volume contracts, which paid an amount regardless of activity up to a threshold, and then paid in relation to activity above that level.

Payment by Results (PbR), an activity-driven payment system, was introduced into the English National Health Service (NHS) in 2003/4. It constituted a major change in the financing of hospitals, and introduced a set of incentives that had hitherto not been employed in the hospital sector in England. PbR made a direct link between hospital income and the number and casemix of patients treated.

Similar activity-based mechanisms are widely used in Europe and elsewhere in the world. Medicare in the United States pioneered this approach to hospital financing based on the costs associated with predefined groups of diagnoses and treatments. These groups are known internationally as diagnosis-related groups (DRGs). There are many national variations in the construction of such groupings. The version used in England is known as healthcare resource groups (HRGs).

The structure of the financing mechanism for hospitals affects their behaviour in a number of ways, such as, in terms of how they supply services, what and how much they supply, the cost of services, and the quality of services. At first, the aim of PbR, as a prospective-payment system, was to encourage cost-control and increase activity levels. In 2009, these goals were revised to reflect the Department of Health's aims to incentivise providers to maximise efficiency, improve quality, and shift care outside the hospital, as well as not to reward poor quality or unsafe care.

In this chapter, we outline the different ways in which hospitals can be paid, and discuss what impact we might expect a prospective casemix-based payment system such as PbR to have, drawing on similar experiences in other countries and English evidence. We start by describing the original policy objectives of PbR (and how these have evolved), its implementation and its development. We then consider

whether the objectives of the policy were reasonable given existing international evidence, and summarise the evidence on the impact of PbR. To conclude, we consider the overall effects of PbR and whether the policy has met its objectives.

Objectives

It is useful to consider hospital payment systems along two dimensions. The first dimension is whether the price the hospital is paid is set prospectively or retrospectively. The second dimension is the extent to which reimbursement is linked to the level of activity, ie, whether hospitals are paid a fixed sum for a range of services or whether the funding is activity-based.

Retrospective-payment systems are rarely used today because they do not encourage hospitals to control costs or output. Fixed global budgets based on historical activity are no longer used to pay for NHS hospital care in England. In Scotland, Wales and Northern Ireland, NHS hospital funding levels are related to planned or expected levels of activity. In Scotland, for instance, there are no payments to hospitals for the treatment of individual patients. Global budgets continue to be used in many Organisation for Economic Co-operation and Development countries. For instance, the majority of hospital services in Denmark and the Czech Republic are funded in this way.

When budgets are fixed in advance of the services being provided, there is an incentive for providers to control costs, as they must remain within budget. However, there is no incentive to increase output as the sum paid will not increase with increases in activity.

In the English NHS prior to PbR, providers were able to negotiate for additional payment if their costs or output were higher than previously agreed levels. Under PbR, hospitals are no longer able to negotiate for higher payment. Although there is a local adjustment to the tariff (see below), it is centrally determined and non-negotiable for the individual hospital. The price paid per unit of activity is fixed in advance, giving an incentive for the hospital to control unit costs. If costs of an additional unit of activity are less than the price paid, there can also be an incentive for the hospital to provide more care.

The key document that introduced PbR policy was *Reforming NHS Financial Flows* (Department of Health 2002e). It identified three main objectives in introducing a standard price tariff:

- to enable primary care trust (PCT) commissioners to focus on the quality and volume of services provided (in the absence of price negotiations)
- to incentivise NHS trusts to manage costs efficiently
- to create greater transparency and planning certainty in the system.

The Department of Health expected the introduction of PbR to encourage cost-control and increase activity, and, when combined with other concurrent English health care reforms, such as patient choice and practice-based commissioning (PBC), to mitigate the possible negative impact on quality (so-called skimping) that is often associated with prospective case-based payment systems.

The Audit Commission (2008b) saw the main aims of PbR to be:

- to enable faster access to more appropriate, patient-responsive services
- to drive efficiency
- to enable commissioners and providers to focus on quality
- to ensure fairness and transparency of funding.

By 2009, the Department of Health (2009a) had revised its aims for a tariff-based system. These were to incentivise providers to:

- maximise efficiency
- offer the highest quality care
- shift care out of hospital settings
- not provide poor quality or unsafe care.

Implementation

PbR was introduced in 2003/4 for elective care in foundation trusts only. Prices were set for elective care based on average costs within the NHS. The intention was to move, over time, to a system in which all NHS activity would be commissioned against a standard tariff using HRGs or other appropriate measures that differentiated activity according to casemix.

By 2006/7, the tariff had been extended across all NHS providers, to cover admitted patient care and attendance at and treatment in outpatient clinics and accident and emergency (A&E) departments. However, even within the acute hospital sector, some activities remained outside the PbR structure.

Since then, progress to extend the system has been slow, with a number of major services still not being incorporated, including critical care, mental health care (which is discussed below), community health services, ambulance services and primary care. In 2009/10, only £26 billion of English NHS activity, out of a total of £103 billion, was paid for under PbR (House of Commons Health Committee 2010b).

In order to give providers time to adjust to the new national tariff, which would have resulted in many of them receiving less income than their actual costs, PbR was implemented in a phased manner. Similarly, many PCTs had to pay a higher

price than they previously had and needed time to adjust. The Department of Health set up transitional arrangements in which gains and losses were mitigated over a period of four years. These protections were phased out gradually so that by 2008/9 the full PbR tariff structure applied.

The 2010/11 national tariff for admitted patient care, outpatient procedures and outpatient consultations was based on 2007/8 NHS reference costs (Department of Health 2010f). The 2010/11 national tariff for A&E is based on earlier reference costs (HRG 3.2) updated to reflect increased costs in A&E since 2009/10. With this exception, a general uplift has been applied to the tariff each year reflecting assumptions about price pressures. Thus, between 2007/8 and 2008/9 the increase was 2.3 per cent, between 2008/9 and 2009/10 it was 1.7 per cent. However, between 2009/10 and 2010/11 there was no increase as it was assumed that pay and other pressures would be met by efficiency gains as the NHS entered a period of major financial stringency.

The national tariff is also adjusted by a market forces factor (MFF) to account for unavoidable differences in costs across different parts of the country (eg, regional variation in wages and other costs of service delivery). As a result of the application of the MFF in 2010/11, there was a difference in tariff of up to 32 per cent between the hospital with the lowest and that with the highest MFF.

Structure of the tariffs

Admitted patient care

Admitted patient care consists of elective treatments (known as an ordinary admission if the patient is admitted for an overnight stay, or as a day case if not) and non-elective treatments – mainly emergency and maternity services. Tariffs are based on HRG spells.

In 2009/10, separate tariffs were introduced for admitted patient care involving an overnight stay and those not (ie, day cases), but this was changed back to a combined tariff in 2010/11, although separate day case and ordinary elective tariffs remain in a few cases. Tariffs are based on the weighted average costs of spells. These include all clinical costs (eg, costs of diagnostics and monitoring interventions), and all non-clinical costs (eg, capital charges, food, cleaning and maintenance). In 2010/11, there were 1,056 elective tariffs and 1,074 non-elective tariffs. In the same period, the tariff for different HRGs for elective care ranged from £161 to £33,531, with a median price of £1,416. For non-elective care, the range was also from £161 to £33,531 with a median price of £2,294.

A number of adjustments are then made to these tariffs, key among which are emergency tariff adjustments, long-stay payments, top-ups for specialised services and, most recently, best-practice payments – an extra payment for treatments demonstrably in line with evidence.

Outpatient attendances and procedures

Outpatient tariffs are set at specialty level for first and follow-up attendances, which may take place in a hospital or in an outreach clinic. There are 47 specialty tariffs, and these are based on the specialty of the consultant responsible for the outpatient clinic. For 2010/11, these ranged in price from £121 to £437 for first attendance, and from £63 to £348 for follow-up attendance. No national tariff has been set for non-consultant-led outpatient attendances, eg, those led by nurses or physiotherapists. In addition, for multi-professional consultations, separate tariffs are applied in each case.

The tariff has been structured to load the payment towards the first attendance so as to provide a financial incentive to minimise follow-ups. There are also HRG tariffs for 49 procedures that may be carried out in an outpatient clinic, replacing the outpatient tariff in those instances. In 2010/11, these ranged in price from £117 to £308. In all cases, these were considerably less than the equivalent admitted-patient care tariff.

A&E attendances

A&E tariffs are set at three levels: high, standard and minor. High relates to the use of high-cost investigations and imaging; standard to low-cost investigations or if the patient is dead on arrival; and minor to cases where there is no investigation, or where the patient attends a non-24-hour A&E unit or a minor injury unit (MIU).

Prior to 2006/7, the lowest level applied only to MIUs, but in that year a combined minor A&E and MIU tariff was introduced that reflected the average cost of minor attendances at A&E departments and attendances at MIUs. Attendances are costed at the same rate whether a patient is admitted or not. In 2010/11, the A&E tariffs for minor, standard and high activities were £59, £87 and £117, respectively. Although the Department of Health stated an intention to include attendances at primary health care walk-in centres in the P&R structure, this has yet to happen.

Unbundling care pathways

HRGs are one way of taking account of the very different types and quantities of activity that may constitute treatment for different medical conditions. However, each HRG can be disaggregated further into a combination of different elements of the care delivered (frequently called the care pathway) that drives that particular treatment. Known as unbundling HRGs, it breaks the care pathway into distinct components (eg, diagnostic imaging, rehabilitation) that can often be delivered in different ways and in different settings.

The Department of Health has tried to encourage the unbundling of care pathways so that commissioning and payment can reflect the fact that care can be delivered in a multitude of different settings apart from acute hospitals. However, unbundling

has not been a mandatory part of the PbR structure. Thus, unbundled HRGs were introduced in 2009/10 for the rehabilitation element of care for a small number of HRGs (stroke, pneumonia, hip replacement, and fragility hip fracture) to encourage care to be delivered outside hospitals whenever possible. The tariffs for the rehabilitation phase in 2010/11 ranged from 42 per cent to 94 per cent of the full tariffs, but use of these is not mandatory.

Another area in which unbundling has been applied is that of diagnostic imaging within outpatient consultations. In 2009/10, non-mandatory prices were introduced for this part of the outpatient consultation pathway. However, these were withdrawn in 2010/11 on the basis that separate pricing of imaging did not provide an incentive for providers to keep the number of images requested to a minimum. On the other hand, non-mandatory indicative prices were published in 2010/11 for directly accessed imaging (eg, those requested by a GP).

Impact of casemix-based funding

There is a large literature documenting the design, implementation and, in some cases, the impact of casemix-based payment systems for hospitals. In most European health care systems, these payments replaced global budgets and per diem payments, whereas in the United States, the system replaced fee-for-service payments. As a result, the change in incentives and the objectives of the schemes differ. In the United States, the initial aim was to control total costs and discourage unnecessary treatments. In Europe, there has been greater emphasis on reducing unit costs and, in some countries, such as Norway and Sweden, reducing waiting lists through greater patient throughput.

Much of the literature is based on the US experience, but there is a growing literature on the experience of European health care systems. In this section, we review some of the evidence, highlighting contextual differences where appropriate.

Costs

Fixed-price payment systems incentivise providers to control costs and increase efficiency. Evidence of the impact on costs is mainly focused on unit costs, although there has been interest in the impact on total expenditure. This was of particular interest in the United States when DRG pricing was introduced into a system where the increasing total expenditure on health care was regarded as problematic (Sood *et al* 2008). However, the focus has generally been on improving efficiency through reductions in unit cost. Length of stay is known to be correlated with hospital charges (or price) (Polverejan *et al* 2003), and is commonly used as a measure of the inputs consumed (Chalkley and Malcomson 2000).

There is conflicting evidence about the impact that prospective payment had in the United States. Some early evidence suggested large decreases in the length of stay (for

example, Kahn *et al* 1990), but Newhouse and Byrne (1988) and Carey (2000), using better-constructed analyses, found more modest reductions in the length of stay.

Casemix-based payments to hospitals are now widespread across Europe, and, despite the differing contexts into which DRGs have been applied, the findings are broadly similar. For example, Sweden was one of the earliest European adopters of DRG-based hospital financing during the late 1980s and 1990s (Kastberg and Siverbo 2007). County councils have implemented different hospital financing systems providing an opportunity to evaluate changes over time and between councils. Fosberg *et al* (2000), among others, observed an initial reduction in the length of stay in a number of councils adopting activity-based financing in the early 1990s. Charpentier and Samuelson (1996) found that these early productivity gains disappeared when examined over a longer period. Kastberg and Siverbo (2007) concluded that productivity gains were lost when the rules surrounding the new financing systems were relaxed over time.

In The Netherlands, prices are negotiated between private insurers and (mainly) public not-for-profit hospitals. Under this flexible price regime, the negotiations were dominated by price and volume. The Netherlands introduced a casemix-based payment system for around 20 per cent of acute hospital activity. As with PbR, one aim was to shift the emphasis in negotiations between insurer and provider away from price and towards quality improvements. Van de Ven and Schut (2009) reported that payments for activity funded according to DRGs was reduced by more than the price paid for other acute activity not covered by the fixed-price scheme.

The international literature generally supports the expectation that adoption of a prospective casemix-based payment for hospitals reduces unit costs as measured by length of stay, even if the effect is only temporary and perhaps small. Although there are exceptions, this evidence is drawn from a range of contexts. The experience of other countries suggests that the objective of encouraging efficiency is achievable, even in a system like the NHS in England that is characterised by public commissioners and providers and was previously funded by mainly prospective block grants.

Indeed, Farrar *et al* (2009) found strong evidence of reductions in unit costs after the introduction of PbR. They exploited the fact that PbR was introduced in phases in England and not at all in Scotland to conduct an analysis using data from England and Scotland for 2002–6. They used two measures of unit costs or patient-resource use: the proportion of patients treated as day cases; and the length of stay. Length of stay fell more quickly and the proportion of day cases increased more quickly where PbR was implemented. Similarly, an early study by Appleby *et al* (2005) using data from the first year after implementation of PbR (2003/4) attributed an increase in day-case activity to the introduction of the PbR tariff.

However, Mannion *et al* (2006) reported increased administrative costs associated with the new contracting process. Interviews with provider trusts and primary care

trusts revealed an estimated increase in administrative costs per organisation of £100,000–180,000 and £90,000–190,000, respectively in 2006. Similarly, the Audit Commission (2005), drawing mainly on qualitative analysis from interviews plus some additional basic analysis of 2004/5 activity data, found that the costs of implementation were higher than expected (at around £100,000 per organisation), towards the lower end of the range reported by the respondents in the study by Mannion *et al* (2006).

Quality of care

Use of casemix-based payments may lead to skimping on the quality and intensity of treatment, which may later lead to readmission or higher mortality after discharge. International evidence is inconclusive on the effects on the quality of care of prospective-payment systems. One of the major challenges is securing the appropriate data to investigate changes in the quality of care. Many studies have used variables from administrative data as measures of quality, such as mortality in hospital and after discharge, and readmission rates after surgery or discharge, or surveys of patient satisfaction.

Again the literature is dominated by the US experience during the 1980s and 1990s. In a review of US research, Rosenberg and Browne (2001) found that the quality of care was not adversely affected by the introduction of prospective payment. Indeed, Kahn *et al* (1990) found that there was evidence to suggest that mortality fell after changes in the hospital-payment system for some types of care.

Other authors investigated patient stability at discharge using measures such as rate of discharge to long-term care (Sloan 1988), and clinical measures of stability (Kosecoff *et al* 1990). These studies found evidence that patients were discharged in a less stable condition under the prospective casemix-based funding.

Dismuke and Guimaraes (2002) examined the effect of a switch from retrospective to prospective casemix reimbursement in Portugal in the early 1990s. They found no change in inpatient mortality. However, their analysis was restricted to one DRG relating to common cerebrovascular disorders. In Sweden, changes have been assessed using health care professionals' perceptions of the quality of care (Charpentier and Samuelson 1996; Fosberg *et al* 2000). In the study by Fosberg and colleagues, doctors working in hospitals funded by prospective casemix considered that patients in their hospital were being discharged too quickly. However, comparisons of hard data on discharge patterns did not support this view.

Farrar *et al* (2009) investigated the impact of PbR on the quality of care in England. They used administrative data to construct standard indicators of the quality of hospital care: rates of in-hospital mortality, 30-day post surgical mortality, and emergency readmissions. The authors concluded that there had been no change in the quality of care as measured by the proxies used. However, it is possible that there may have been dimensions of quality of care that could have been adversely affected by PbR that were not captured in the study.

Activity

Nordic countries adopting activity-based financing have generally done so with the explicit aim of increasing productivity and reducing patient waiting times for hospital care (Siciliani and Hurst 2005). There is some empirical evidence of a positive relationship between DRG payment and output for Norway, although for Sweden the effects appear to have been temporary (Mikkola *et al* 2002; Kjerstad 2003).

Appleby *et al* (2005) examined whether there were increases in activity and associated reductions in waiting times in the first 15 HRGs subject to PbR in 2003/4. They hypothesised that because prices were based on average costs, low-cost providers would be more likely to respond to the incentive to increase activity. They found that while there were increases in admissions in some of the 15 HRGs, others experienced a fall, and there was no association between waiting times and the use of the tariff as provider costs did not appear to affect their response to the incentives. They identified a number of possible reasons for a lack of association: the small proportion of hospitals' income affected by the tariff at the time; the effects of waiting-time targets swamping the PbR effects; and the lack of information within trusts on their costs.

Mannion *et al* (2006) examined the use of demand-management methods following the introduction of PbR and patient choice in South Yorkshire. They noted a rise in acute elective and non-elective activity, although their methods did not allow them to attribute this to the introduction of PbR as they could not control for the effects of other factors.

The study by Farrar *et al* (2009) examining data up to 2005/6 found evidence of an increase in the volume of care, but this was sensitive to the control group used in the analysis. Using Scotland (where PbR was not implemented) as a control group, English hospitals experienced higher growth in spells of care, which appeared to be associated with the introduction of PbR. However, when using comparisons within the English system, the difference in growth between hospitals operating under tariff and those outside the tariff system disappeared. The authors concluded that other policies, such as waiting-time targets, may have been more important in driving the growth in the volume of care in England relative to that in Scotland.

Unintended effects

Gaming

One concern with prospective-payment systems is the potential for upcoding, where hospitals systematically categorise patients into HRGs that have a higher level of reimbursement.

Carter *et al* (1990) investigated upcoding following changes in Medicare payments in the United States. They used a private coding firm to recode a sample of medical

charts between 1986 and 1987 and compare the hospital DRG assignment to recoded DRGs. They concluded that one-third of the change in casemix was attributable to upcoding, but this could be due to more accurate coding.

Dafny (2005) investigated the response by hospitals to a price change in 1988, when the age criterion that was attached to some DRGs was abolished, as a result of which the price-weighting of some DRGs increased. Following the policy change, there was an increase in upcoding, which was done in a sophisticated manner through the upcoding of DRGs that would give the greatest financial return.

Silverman and Skinner (2004) examined the US Medicare system over the period 1989–96, concentrating on respiratory-related DRGs by employing the chart-review method devised by Carter *et al* (1990). They found evidence that upcoding behaviour was related to hospital ownership (ie, for-profit or not-for-profit).

However, studies examining the impact of casemix-based payments in health care systems where the hospitals are predominantly publicly owned and the ability to retain surpluses is limited have found similar results. Serdén *et al* (2003) found that the introduction of case-based systems in Sweden led to a comparatively greater increase in the number of secondary diagnoses among hospitals paid under prospective-payment systems.

Aakvik and Kjerstad (2005) used Norwegian patient-level data from a group of hospitals paid by the prospective-payment system as well as from a control group of hospitals that were not. They looked at the percentage of complications, and compared the length of stay for patients between the two groups of hospitals. A small but significant increase in the percentage of complications was found in hospitals that had implemented prospective-payment systems. However, there was no significant difference in the length of stay between the two groups.

In general, the PbR tariff for HRGs ‘with complication’ receive a higher level of payment than those ‘without complications’, indicating a potential incentive to upcoding in England’s NHS. Shortly after PbR was introduced, Rogers *et al* (2005) analysed activity data for evidence of upcoding. They found no evidence that there was a higher proportion of HRGs being coded ‘with complications’ at this early stage.

Yi *et al* (2007) examined the evidence of upcoding using data from English and Scottish hospitals, and compared coding of HRGs before and after the introduction of PbR in England. They found a higher rate of growth of spells in HRGs with complications in England compared with Scotland. However, the number of diagnoses in such HRGs decreased after PbR in comparison with the number of diagnoses in HRGs without complications. Furthermore, lengths of stay for HRGs with complications were shorter after the introduction of PbR, suggesting increased efficiency under PbR rather than unjustified upcoding. This work provides preliminary evidence of upcoding in the system.

Equity

So-called cream-skimming, or adverse selection, means selection by providers of patients who are expected to be (more) profitable, in this case in relation to the risk-adjusted payments based on average costs of treatment. When hospitals are able to decide the service mix (eg, foundation trusts), they could also choose to provide more of the profitable HRGs than the less profitable ones, and even get rid of specific specialties, which could be disadvantageous to specific local patient groups.

The risk of widening inequality in the use of services, given that PbR gave hospitals incentives to adjust their costs towards the national average, was examined by Cookson and Laudicella (2011). They studied whether hospital patients living in small areas of low socio-economic status cost more to treat than patients living in better-off areas to see if cream-skimming was to be expected. They looked at hip replacement as a tracer treatment, and used length of stay as an indication of cost. They showed that patients from the most deprived areas (the lowest 10 per cent of small areas on a standard measure of deprivation) stayed 6 per cent longer than those from the least deprived (the top 10 per cent of small areas) in 2001/2, but that this difference had fallen to 2 per cent by 2007/8. The major determinants of length of stay were age and number of diagnoses. Thus under the NHS fixed-price payment system, there were potential incentives for competing hospitals to cream-skim.

However, in a subsequent analysis, Cookson *et al* (2010b) found no obvious change in socio-economic equity of use from 2001/2 to 2008/9 for elective procedures, and some signs that equity might have improved slightly, since inpatient admission rates had risen slightly faster in low-income areas than elsewhere. This study found that socio-economic disparities in health care utilisation in the English NHS were relatively impervious to changes in the supply-side brought about by health care reforms affecting hospital reimbursement methods.

These conclusions reinforced similar findings from studies of health care equity in the 1990s, which found little or no change during a period of pro-competitive health reform coupled with much slower expenditure growth (Cookson *et al* 2010a). They concluded that as long as the NHS continued to provide universal and comprehensive care free at the point of delivery, policy-makers could safely embark on major programmes of efficiency-oriented reform without undermining socio-economic equity in health care.

Conclusion

There is only limited evidence available on the impact of PbR on the performance of the English NHS, and determining whether PbR has achieved its objectives is further complicated by the need to disentangle the effects of PbR from those of the other reforms introduced during the same period. Much has been written about the likely effects of the policy (Appleby and Renu 2004; Street and Sawson 2004; Street and Maynard 2007), but there has been only a limited amount of analysis based on

empirical findings. The empirical studies have investigated a number of areas of impact: unit costs; quality of care; volume and waiting times; administrative costs; upcoding and cream-skimming.

The evidence broadly supports the conclusion that PbR (alongside the other New Labour reforms) was associated with reductions in unit costs as indicated by reductions in length of inpatient stay and increases in the proportion of patients treated as day cases. For such reductions to be interpreted as increases in efficiency, would require that quality remained unchanged or improved over the same period. Quality of care, as measured using patient-level administrative data, appeared not to have been adversely affected by the introduction of PbR. While there is no direct evidence that fixed prices led commissioners to focus on quality, the available evidence does at least suggest that providers focusing on cost reduction was not to the detriment of quality of care in the NHS in England. On the other hand, such analysis may not capture the wider impact on costs: while the transaction and administrative costs of operating PbR have not been fully documented, these are likely to have been quite large.

The fears that PbR would lead to widespread gaming and that certain (more expensive) patients would be dumped or deterred from accessing care have also proved to be ill-founded with respect to cream-skimming. The evidence to date on upcoding suggests that such fears may be justified.

Finally, although one objective of PbR was to encourage providers to increase activity, there is little evidence that it was the main reason for increased growth in activity during this period. Commissioners have had a tendency to blame PbR for rising hospital activity (*see* Chapter 8) and the expenditure associated with it, but in fact it would seem that other factors, such as waiting-time targets, might have been responsible.

In future, under the coalition government's proposals, the structure of tariff will be determined by the NHS Commissioning Board, and prices will be set by the new Monitor (*see* Chapter 10). Concerns have focused on the move away from fixed prices. The legislation allows future tariffs to be 'bundled', that is, to cover one or more specified services. There is a need to consider the applicability of HRGs to other sectors of the health system, and to seek alternative ways of defining pathways and packages of care, particularly ones that stretch beyond the confines of the hospital to include community and intermediate care services.

It is likely that the trend for setting prices at an efficient price or 'best-practice tariff' will continue rather than reverting to the basis of average costs. Prices also need better to reflect the true underlying costs (of both public and private providers), and the casemix adjustment needs to be sufficiently sophisticated to remove potential incentives for cream-skimming. If fixed prices and prospective-payment systems are to be extended to new specialties, this will require more patient-level costing data and more sophisticated methods for setting prices in future.