

Payment by Results

How can payment
systems help to
deliver better care?

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Key messages

Based on a review of the English NHS experience of Payment by Results (PbR) and international experience of similar, activity-based payment systems, this report identifies five general lessons about payment systems, draws some conclusions about whether our current Payment by Results system is fit for purpose in view of current and future challenges and presents options for how reforms to PbR could be taken forward.

What have we learnt about payment systems?

- **Payment systems cannot do everything:** Payment systems are not just a means to an end; they are one of many measures used to promote health policy objectives. They may not be as effective as other means of promoting desirable change so they need to be evaluated in relation to what other policy instruments can achieve, or for their incremental impact over and above the effects produced by other measures.
- **One size does not fit all:** Different services require different payment systems. PbR is most appropriate to elective care and is less suited to other services where less rather than more activity is desirable, and where the nature of the service means that competition and choice is limited and the main requirement is to ensure there is the capacity to meet variable levels of demand. It follows that any payment system for the whole of the NHS needs to comprise a number of different approaches.
- **Payment systems need to be flexible:** Systems must be adjusted in the light of experience of their impact, changing objectives and changes in the context in which they operate. It is not policy at national level to anticipate and rapidly respond to all the developments in service provision or to every local context. There is therefore a need to maintain a degree of flexibility.
- **Trade-offs between objectives are inevitable:** There is likely to be conflict arising from the objectives that payment systems promote. The starkest potential conflicts are between cost and quality and cost and maintenance of supply. There is a risk of widespread failure if tariffs are pushed down to a level where even an efficient provider cannot maintain high-quality services. As more and more objectives are loaded on to payment systems, the risk increases that they will conflict and that their impact will be unpredictable and difficult to evaluate.
- **Data and research for payment systems must be strengthened:** There is limited understanding of the impact of payment systems: more research is needed into their effects. Further developments in payment approaches will need to be supported by high-quality data and analysis. Any system that is not underpinned by reliable data and analysis will lack compliance or risks leading to unintended and unwanted side effects.

Is PbR fit for purpose given current and future challenges?

- While the introduction of PbR may have had some positive impacts within the NHS in England, the current system as applied is not fit for our current and future health and social care needs despite efforts to develop and refine it.
- It is not clear how far the process of using the efficiency incentive in PbR to force costs down can go. Providers have limited interest in the profit or loss on individual services, thus PbR does not transmit much, if any, pressure to be more efficient within the individual hospital specialties. If PbR is to continue in more or less its present form then the cost data underlying it and the analysis of the cost drivers must be improved.
- PbR as it stands is not well designed to promote or support larger scale shifts in care from hospital to other settings due to incentives facing hospitals to maintain income and lack of flexibility to vary tariffs to reflect different costs of providing care in different settings.
- PbR is not well suited to promoting continuity and co-ordination of care. In its current form it does not provide payment relating to the costs of co-ordination itself and it does not provide a financial framework that supports or directly incentivises new ways of delivering care for people with long-term conditions.
- A single hospital episode such as an emergency admission may form just one part of an extended treatment cycle for some patients. Where the need for the episode is in part determined by the effectiveness of services in primary and community care, hospital treatment may not be required. Although recent modifications to PbR have reduced the incentive to increase emergency admissions they do not provide an incentive to reduce the underlying demand for this category of admission.
- For the NHS in England, the emphasis placed on giving greater priority to the prevention of illness, the treatment of people with long-term conditions, and the development of integrated care to address the needs of these people requires a radical rethink of the incentives needed.
- Attention should be given to the role of bundled payments that cover care for people with specific long-term conditions as well as those with co-morbidities, and the contribution of innovations such as year of care payments.
- More use could be made of capitated budgets to create incentives for providers to focus on prevention and on the provision of care in the most appropriate and cost-effective settings.

How should the system be developed?

We have identified three scenarios for the development of payment systems by the NHS Commissioning Board and Monitor.

- Monitor and the NHS Commissioning Board continue to develop PbR incrementally alongside other payments such as bundled and year of care payments.
- Monitor and the NHS Commissioning Board develop a wider range of payment systems with the aim of creating a coherent and mandatory national framework to support the implementation of a variety of policy objectives such as the development of systems to support prevention and integrated care.
- Monitor and the NHS Commissioning Board allow and encourage local experimentation within the national framework. Commissioners and providers

would be required to seek approval for, and commit to evaluate the impact of, local variations. The NHS Commissioning Board and Monitor provide technical support and track the innovations adopted.

Our conclusion is that active encouragement of local experimentation is more likely to identify the blend of payment systems needed to support the rapid development of new models of care.

Introduction

The details of payment systems can be technical and involved, but it is important to remember that they are a means to an end – better care, delivered more efficiently, for example – and not an end in themselves.

The payment systems that have operated in the NHS have been designed to ensure that the resources needed for a comprehensive health service were available in all parts of the country. Some payment systems in the NHS – for example, payments to GPs – have been based on incentives that encourage some activity and deter others. This approach has expanded in the NHS, as has the scale of expenditure on incentive-based systems.

The most significant of those forms of payment – Payment by Results (PbR) in secondary care and the Quality and Outcomes Framework (QOF) in general practice – have now been in place for nearly a decade and account for around one-third of the total budget of the English NHS. They have been revised, modified and expanded in the light of their impact on the NHS, the availability of new data, and research findings.

The challenges our health system faces – rising demands, particularly from chronic diseases, limited resources and patients' expectations of an improving service – mean we must look at how our payment system can better deal with these challenges. Changes introduced through the Health and Social Care Act 2012, provide an opportunity to reassess what needs to happen and how that change should be led.

We start this report with a brief look at the policy context in which payment systems, and PbR in particular, fit and, given the technical nature of the subject, provide a short description of the many approaches to paying for health care.

We go on to set out the current systems of payment for secondary care services in the English NHS and, in particular, outline the use, development and impact of PbR.

Section 3 looks at international experience of payments systems, recognising that many countries are introducing new forms of payment that are designed to find the right balance between the familiar competing pressures on health systems.

We then set out the major challenges facing the NHS in the medium term and attempt a broad assessment of whether PbR is fit for purpose.

While in this report we focus on PbR, we recognise that it sits alongside not only the Quality and Outcomes Framework (QOF) in general practice, but also the allocation of budgets to purchasers, the 'off-PbR' locally negotiated payments, the payment of salaries and wages to staff within provider organisations, the setting of budgets within health care organisations and so on. Where relevant and appropriate we touch on these financial arrangements as well as the contractual relationships in which NHS provider payment systems are embedded.

Our conclusions reflect the need for policy-makers to take a broader look at the way in which payment systems relate to each other, and how they need to adapt to changing objectives and to integrate with other policy levers designed to improve NHS performance and the quality of patient care.

1 Payment systems: policy context and description of terms

Payment systems have become increasingly critical elements in health policy, and are used for a number of different purposes. The interest in them has risen as health care systems worldwide have tried to control rising expenditure and costs, improve quality and use available resources more effectively. Importantly, the use of payment systems to promote certain behaviours have increasingly been seen as part of a general desire to decentralise decision-making while also trying to ensure the meeting of overall policy goals (for example, providing effective and efficient care). Put simply, top-down command and control have been replaced by local, bottom-up, decisions shaped by the design of the payment system (or systems).

Interest in developing payment systems has been further stimulated by the introduction of markets into publicly funded health systems. Markets – at least, the separation of purchasing from the provision of care – have been seen as a better way of achieving greater efficiency than tight budgetary limits and have been viewed as part of a package of policy measures designed to decentralise decision-making. At a minimum these require a form of payment that links what each provider is paid to the volume – and also possibly the quality – of the services they deliver. In other words, money follows the patient, who is then free to access care from the provider of their choice.

These forms of payment, known generically as activity-based or case-based payment systems, have been introduced worldwide at varying degrees of sophistication and design and for different purposes. In some countries they are used as a modified form of block allocation; the tariff is used to cost the expected workload of a hospital and the funds are made available to the hospital as a single payment. But in others – including England – they have been used to set prices or tariffs for individual procedures based on a *prospective* workload, with the result that hospital income then depends on the precise composition of their *actual* workload. Table 1, overleaf, provides details of payment terms and definitions.

Prospective activity-based payment systems are not without their problems. Incentivising activity may have a detrimental effect on quality as providers seek to maximise income. Providers may also seek to shift costs onto other parts of the health system or onto patients.

Interest has therefore developed in payment systems that promote both efficient financial operation *and* better quality. Attempts to resolve the tension between these two objectives have led to payment systems that ‘pay for performance’ by linking some portion of the payment for activity to the outcomes achieved or, where outcomes are hard to measure or no relevant data are available, to the following of processes (such as care protocols) that are assumed to be linked to better outcomes. In England, pay-for-performance schemes have been used for primary care to encourage take-up of immunisation and vaccination and to incentivise a wide range of activities associated with better patient care.

A further development has been to shift the focus from efficiency or performance within a particular part of the health system – such as the hospital – to overall efficiency. In its

Table 1 A description of payment terms

Payment term/system	Description	Further description and examples
Block	Payment/lump sum for a specific - usually broadly defined - service independent of number of patients	For much of the life of the NHS, payment for hospital services was made in a single allocation, often supplemented by ad hoc payments, to support, for example, the establishment of new specialist services.
Capitation	Lump sum payment per patient/member of population served by a provider for comprehensive services or particular categories of service regardless of treatment	The majority of GPs' income (apart from those with employment contracts) consists of a payment related to the number of patients on their list (weighted by their age and other characteristics). The activities they are intended to carry out is defined in the GP national contract but only in very broad terms.
Pathway/episode of care	Single payment to cover an entire episode/pathway of care	In the case of a pathway, payments may cover all the activities after initial identification of a problem or need from diagnostic investigation through to rehabilitation.
Case-based	Activity-based reimbursement per patient based prospectively on diagnosis/patient characteristics	Under Payment by Results, payment for hospital services is made according to the number of individual procedures and other activities such as outpatient consultations. NB PbR has developed to include other payment forms and modifications.
Per diem	Lump sum payment per patient per day of care regardless of consumption of care	Under Payment by Results, patients staying in hospital longer than the Healthcare Resource Group (HRG) tripoint (the maximum expected length of stay) are paid for on a fixed per diem rate for each day above the tripoint.
Fee for service	Activity-based (prospectively set) unit payment for a defined intervention regardless of patient characteristics	GPs' incomes are in part made up of fees for providing specified services such as vaccinations and inoculations.
Pay for performance	Payment linked to achievement of specific performance targets	The Quality and Outcomes Framework, which supplements capitation payments, is probably the largest scheme of this kind in the world. GPs earn extra payments if they provide specified levels of service.
Bundled payment	A single payment covering multiple elements of a patient's treatment	Bundled payments may involve the aggregation of different elements of care that were previously paid for separately - eg, bundling consultants, drugs and diagnostic tests into a single outpatient payment, or bundling an inpatient stay with elements of care such as an operation and rehabilitation.
Unbundled	Separate payments for disaggregated elements of a patient's care	Unbundling payments for elements of care that were covered by a single payment previously may be allowed so that other organisations can provide some elements in the bundle (eg, in the case of stroke, rehabilitation at home).
Mixed or blended systems	A combination of different payment methods	In practice payment systems may combine some or all of these systems. For example GPs are paid by a mix of capitation, fee for service and performance payments. Payment by Results has also developed to include a number of payment approaches.

simplest forms, activity-based systems focus on a particular intervention (such as a hip replacement). In the United States, this may mean that the insurer or patient has to pay for each of a number of activities making up the whole of an episode of hospital care: surgeon, drugs, theatre, rehabilitation and so on. In England, the hospital tariff covers all of these, but it does not cover all the costs of care outside the hospital. Payments for GP and community services are not included and are paid for in different ways: the total cost of a care episode is typically unknown.

It is now acknowledged that lower costs and/or higher quality may best be achieved through better organisation of the whole episode of care. A simple activity-based system provides no incentive to change the organisation of a whole pathway but a payment for the whole pathway may do so if, for example, all those involved are incentivised through suitable contracts to improve or reduce the cost of the service as a whole.

In this case the assumption is that the providers, if incentivised, will find the best way, or at least an improved way, of providing the services concerned. Alternatively a purchaser may define an optimal pathway or set of linked pathways and set the tariff for that. The presumption is that the purchaser knows how they want care provided and what reasonable remuneration for that service should be (but they may in some circumstances seek competitive tenders to provide the defined service).

These so called 'bundled tariffs' seem particularly relevant where improvements in efficiency and quality must be sought by considering all the treatments and needs of a patient during an extended period of care.

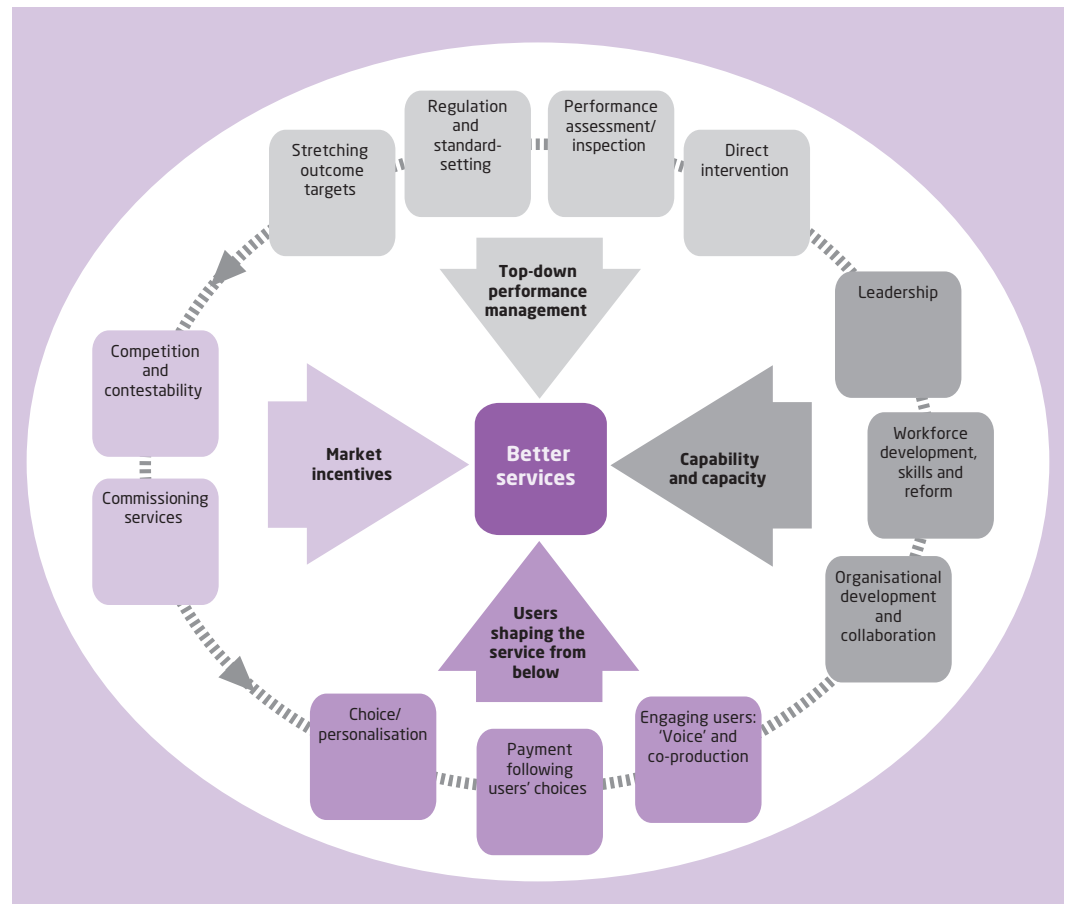
The same logic applies where some hospital services, primarily unplanned admissions, result from poor-quality care outside hospitals. In a simple activity system, the hospital is rewarded for each admission and has no incentive to reduce their number. But the route to a higher performing system may lie in the development of community services that reduce the need for admissions. These activities could be contracted and paid for individually at a suitable activity-based tariff. An alternative is to construct a tariff covering all the costs of a specific group of patients likely to be admitted as emergencies and create an incentive within that to reduce their number.

In England and elsewhere these considerations have led to the development of tariffs covering more than a single hospital episode. The main variants under development within the English NHS are pathway tariffs and year of life tariffs. The aim in both cases is to set prices in relation to a bundle of services covering (in the first case) an episode of care involving a number of providers, and in the second case all the care episodes a patient receives over a period of 12 months.

While the NHS grapples with the design of its payment systems to deal with perverse incentives and the changing policy and health environment, it is important to remember that payment systems are simply one among a number of instruments and policy levers designed with the same objectives in mind. As Figure 1, opposite, shows, payment systems form part of a battery of (often overlapping or complementary) measures designed to improve public services.

So, while payment systems form an important part of the drive to improve public services, their effectiveness depends critically on the context in which they are used, the objectives they are designed to promote and their cost-effectiveness relative to other policy instruments. Both the context in which Payment by Results now operates and the objectives it serves have changed over the years, bringing into question whether it is now 'fit for purpose'.

Figure 1 Payment systems are one of many policy levers to improve public services



Source: Adapted from Cabinet Office (2006)

2 Payment systems in the NHS and the development of Payment by Results

Payment by Results (PbR) is the latest, and arguably the most significant, development in the financial flows in the secondary care sector since 1948. In this section we first outline the broad system of payments in the NHS before detailing the origins and development of PbR and its evolution since its phased introduction in 2003/4. We then report on the evidence evaluating the impact of PbR before describing more recent developments and planned changes, primarily as a result of the reforms embodied in the Health and Social Care Act 2012.

A complexity of payment approaches

Tables 2 (below) and 3 (opposite) provide a flavour of the complexity of current payment systems in the English NHS. They show that PbR – covering the bulk of elective inpatient/outpatient and emergency activity payments – is part of a bigger financial flows system. Different sectors – secondary and primary – and different services within these areas are subject to a broad range of payment approaches. The detail is not exhaustive – for example, Table 2 does not cover every source of hospital income, such as money for teaching and research, or ad hoc patient income.

Table 2 Secondary care payment systems

Service type	Payment methods	Contract models	Flexibility to shift resources across settings	Extent of implementation
Elective inpatient/outpatient	Centrally set, prospective, national, fixed (average NHS provider cost) tariff Case type-based per admission/attendance Some performance and unavoidable costs variations allowed (see Table 5 Payment by Results variations and flexibilities, p 13)	No volume limits permitted according to Payment by Results and patient choice rules 'Any qualified provider' patient choice NHS providers subject to activity plans in standard contracts; trigger levels for tight control; non-payment for non-compliance with management plan	Restricted: tariff payable only if same service and case mix In other cases detailed unbundling and costing supported by transparent documentation and information flows is required for shifts of care to primary health care/community providers	Half or more commissioners not complying fully with payment and choice guidance
Emergency	Activity-based per admission or accident and emergency visit Marginal cost (30% or 21% for short stay) above 2008-9 activity level	Activity plans in contracts; trigger levels for tight management control; non-payment if providers don't comply with activity management plan	None	Widespread, though modified by commissioners who use block contracts or negotiate payments to cross-subsidise loss-making services
Specialist	Top-up payments based on specialist provider-type (% addition to national tariff) Additional payments (eg, for high-cost drugs) Local service specification and local price for non-tariff services; marginal cost pricing for activity above 2008-9 level Some market-determined prices through tendering	Local activity-based payment incorporated in activity plans; can set activity caps or contract for eg, capacity	Possible through tendering for whole pathways or new care models, but transaction costs high	Tendering for integrated models is infrequent; block contracts or caps applied by some commissioners for non-tariff services

Table 3 Community and primary care services

Service type	Payment methods	Contract models	Flexibility to shift resources across settings	Extent of implementation
General medical services for practice population	Blend of payments for infrastructure plus weighted capitation and pay-for-performance for essential core primary care services to registered patient list	UK-wide general medical services (GMS) nationally negotiated, locally managed contract terms cover around half of England GP practices negotiated with BMA Locally negotiated and managed personal medical services (PMS) contracts cover remainder (around 40% of GPs) Rising share of GPs are salaried within practices and practice nurses employed by partners (who have autonomy over their human resources)	No	Universal
Enhanced services	a) National standards and payment schedule for Directed Enhanced Services (DES) and National Enhanced Services (NES) b) Locally specified services, standards and payment rates for Locally Enhanced Services c) Tendering of broader range of services under Alternative Primary Medical Services contracts d) Public provision by primary care trust (PCT) provider arms (now by public community health service providers)	a and b: Few of the DES or NES involve activity-based payment; some are performance related (eg, to access measures); enhanced services are voluntary for GPs – though all commissioners have to ensure coverage of DES c and d: Can cover both essential core primary care and enhanced services	No, but b and c can be used by local commissioners to contract primary care providers to develop substitutes for hospital services	a) implemented everywhere but with local variation in provider arrangements b) limited innovation in local enhanced services (LES) though increasing in final years of PCTs c) minority of commissioners use this option; unpopular with most GPs d) small minority of commissioners use this option
Direct access diagnostic imaging and interventions	Unbundled fee for service from Payment by Results tariff for outpatient visits Limited list of diagnostic imaging and diagnostic procedures National tariff	Standard NHS acute contract applies (unless services only provided to patients of own general practice)	Yes	Few examples identified Transaction costs seen as a major deterrent
Commissioning of services that combine primary and specialist care	Market-determined price through tendering Specialist Provider Medical Services (SPMS) contract	Wide flexibility over tender process and contract design: can use gain-sharing, alliance contracts etc	Yes	Not implemented everywhere
Dentistry	Blend of fee for service, capitation and patient charges (with exemptions). Pilots currently being conducted to move to capitation plus quality/outcome payments	Nationally negotiated contract, locally managed	No	Universal
Community health services	Locally negotiated global sum based on predicted activity (with variations)	Block contracts, with volume variations/limits	Yes	Widespread

Payment by Results (PbR): Origins and development

The main stimulus to payment reform for hospital services was provided by the last Labour government's targets for reducing waiting times for planned operations. Achieving these required an increase in activity levels. But as *Delivering the NHS Plan* (Department of Health 2002a), a follow-up document to *The NHS Plan* (Department of Health 2000) noted, block contracts based on an essentially fixed total annual payment or budget provided no incentive for hospitals to attract extra patients by increasing activity over the level agreed in the contract. Following examination of other countries' payment systems, a decision was made to implement an activity-based payment system – PbR – in a phased

way beginning in 2003/4. The new system was designed to provide a closer link between the work hospitals did and the payments they received. As *Delivering the NHS Plan* put it, the aim was to construct a payment regime under which:

- ‘...all providers will be contracted for a minimum volume of cases to achieve waiting time reductions;
- providers will lose money on a cost per case basis for failure to deliver;
- providers will earn extra resources on a cost per case basis for additional patients that move to them.’

Fixed payment for work done

Payment reform was a key component of the then government’s wider policy of creating a market in health care services. Despite this commitment to market forces, no competition on price was allowed. The intention was that hospitals would compete on quality of care, including waiting times, even though information on quality was very limited.

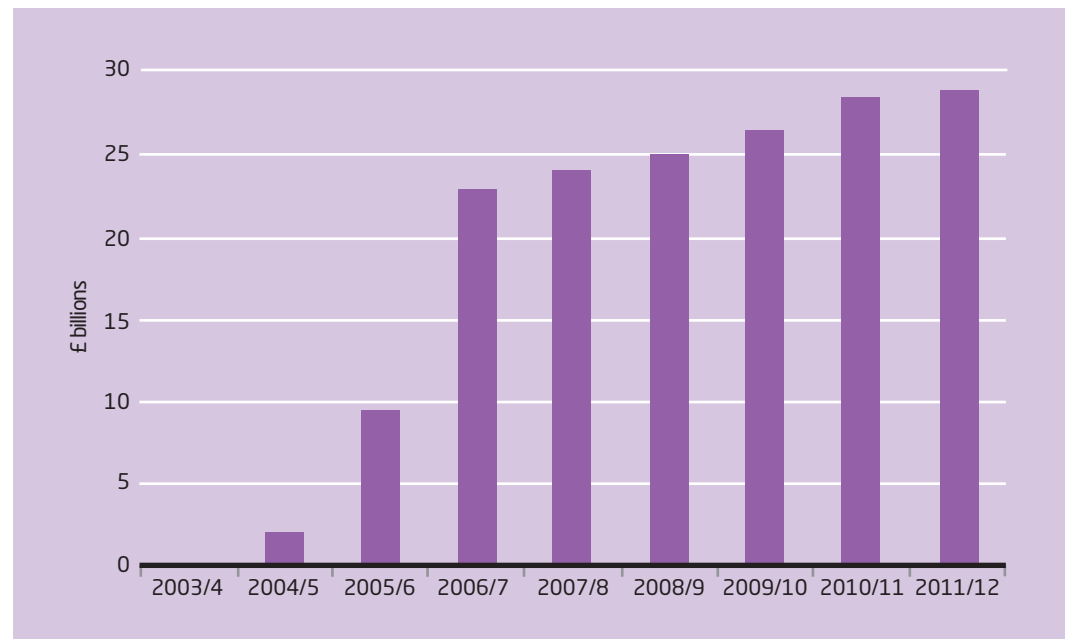
As in similar activity-based systems, hospital services which, in principle at least, shared similar cost and clinical characteristics, were divided into ‘currency’ units – healthcare resource groups (HRGs). A national fixed price or tariff for each HRG was established on the basis of the average level of hospital costs for each HRG. Some variation in what hospitals actually receive (but not what commissioners pay) compensates for ‘unavoidable’ cost variations due to regional pay and price variations as calculated by the Market Forces Factor. A further adjustment has been introduced to allow for the higher costs of services in specialist centres. It has undergone a number of other changes since its introduction (see Table 4) as well as growing in terms of total funding covered (Figure 2).

Table 4 Payment by Results development

2000	NHS Plan (Department of Health 2000) announces intention to introduce a new payment system linking payment to elective care activity.
2002	Delivering the NHS Plan (Department of Health 2002a) made a more specific commitment to introducing PbR. Consultation paper <i>Reforming NHS Financial Flows</i> (Department of Health 2002b) published.
2003	Department of Health response to <i>Reforming NHS Financial Flows</i> consultation published (Department of Health 2003b). Further paper <i>Payment by Results Consultation: Preparing for 2005</i> (Department of Health 2003a) published.
2003/4	Tariff applied to extra activity over 2002/3 plan for 15 HRGs.
2004/5	As in 2003/4 but applied to 48 HRGs. Some early implementer foundation trusts.
2005/6	NHS Trusts - the tariff covers admitted patients for elective care (day cases and inpatients). Foundation trusts additionally include non-elective admitted patients, outpatients and accident and emergency (A&E) services. A three-year transition process is put in place to smooth implementation for both providers and commissioners. Providers and commissioners used national tariffs but the actual impact of moving to tariff was moderated so that organisations moved only one-third of the way toward national price.
2006/7	For NHS trusts, tariff additionally applied to non-elective, outpatient and A&E services. Differential tariff (50% of average cost) for extra emergency admissions above a threshold. Top-ups for specialised services introduced. Short-stay emergency tariff introduced.
2007	Consultation published: <i>Options for the Future of Payment by Results</i> (Department of Health 2007).
2007/8	Indicative tariffs made available to support local flexibility on unbundling.
2008/9	Transition process complete. Further support for unbundling. Specialist top-ups limited to specific organisations.
2009/10	New currency introduced (HRG 4). New tariffs introduced for planned same-day and short-stay electives. Differential tariff removed.

2010/11	Commissioning for Quality and Innovation (CQUIN) and best practice tariffs introduced. Planned same-day tariff dropped in favour of combined day case/inpatient tariff; outpatient procedure tariffs introduced. Specialist top-ups revised. 30% marginal tariff rate set for emergency admissions above 2008/9 activity level. Introduction of mental health currencies (not mandated).
2011/12	Tariff set at 1% below average cost. Common prices set for some procedures in all settings. Provision made for prices below national tariff and for hospitals to take financial responsibility for 30 days after discharge. Additional best practice tariffs introduced.
2012/13	Maternity pathway introduced in shadow form (Department of Health 2012b). New arrangements introduced for payments for emergency readmissions involving clinical review. Mental health currencies mandated with local prices. Further additions made to best practice tariffs. Four post-discharge tariffs introduced. Year of care tariff for cystic fibrosis introduced.

Figure 2 Value of activity covered by Payment by Results



Source data: Department of Health (2011a)

Initial implementation focused on a small number of elective procedures and was expanded to include nearly all elective and emergency care. Over time the proportion of activity included has gradually risen: it is now about 60 per cent of an average hospital's activity (depending on the type of hospital and its activity mix), accounts for around one-third of total PCT spending and comprises around 1,300 mandatory tariffs. Despite substantial development work, it has not yet proved possible to bring mental health care and a number of smaller specialised services within the scope of the tariff.

Apart from supporting the government's wider policies, payment reform was also expected to promote a number of other objectives including in particular greater financial discipline and transparency of NHS organisations. The intention was to make clearer the traditional brokerage and financial support for trusts in difficulty. The government saw PbR as a means to put trust finance on a sounder footing – paying each hospital the same amount for the same volume of service – and making it clearer whenever subsidies were required to balance the accounts.

The incentive for providers is to increase activity where their prices exceed their marginal costs of production. Conversely, of course, providers also face a number of alternative

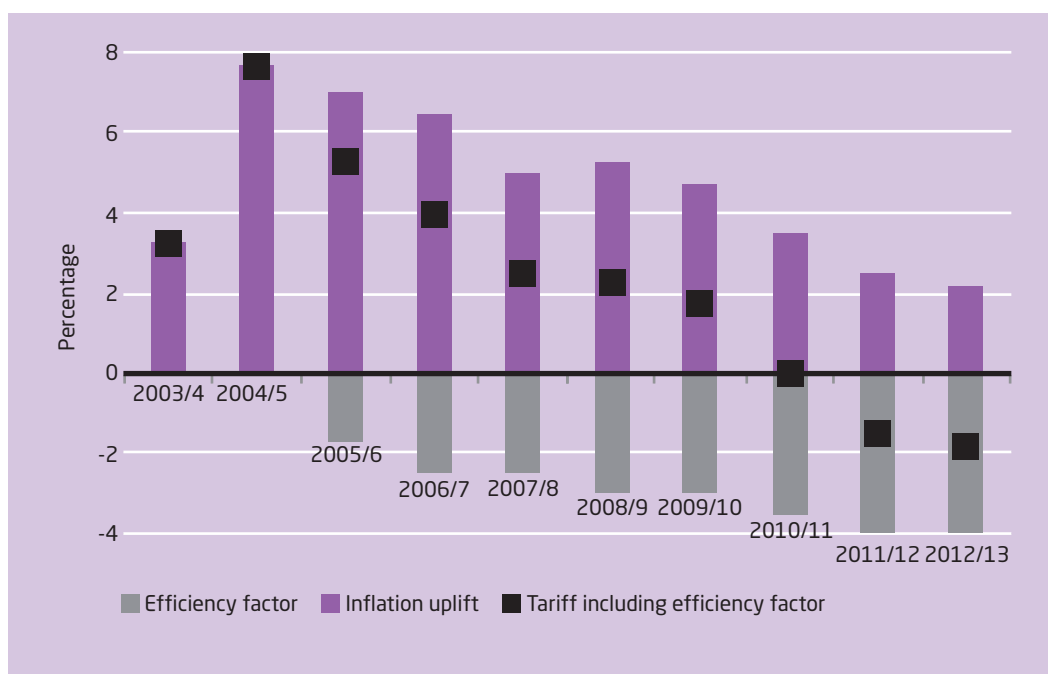
incentives where costs exceed prices; either to *reduce* production costs, or to cross-subsidise between profitable and non-profitable areas or, ultimately, to stop providing loss-making services. While it is presumed that activity-based payment systems will encourage more work – and this has been the experience of similar systems in other countries – the logic of the incentives in PbR means the *actual* impact on the level and mix of activities it encourages is somewhat uncertain.

The need for ‘flexibilities’ to Payment by Results

While an activity-based tariff obviously makes sense if more activity is needed, this is not the case if more activity is not desirable: for example, there is little or no compelling argument why the NHS would want to increase the number of emergency admissions. Payment for emergency admissions was initially set at the same rate as elective procedures, although the costs would on average be higher. Subsequently, payment for admissions over a nationally specified threshold was set at 50 per cent (later 30 per cent) of the tariff rate for such admissions. In principle this encouraged hospitals to try to reduce admissions. In addition, a separate discharge payment – not part of PbR – was introduced to encourage local authorities to prepare support for patients who were ready to leave hospital.

While tariffs are based on national average costs, they do not reflect them exactly. Reinforcing the cost-reducing incentive of a tariff fixed at average cost, the Department of Health further reduces all tariffs each year (see Figure 3 below) to encourage greater efficiency. In this way the tariff became a key part of the government’s attempt to improve use of NHS resources.

Figure 3 Trends in percentage annual change in Payment by Results tariff and efficiency factor



Source data: Department of Health (2011a)

How to promote quality?

Constantly reducing tariffs, however, runs the risk of a reduction in the quality of care as hospitals seek to cut costs. PbR in itself contains no safeguards to prevent this. However a number of changes have been made to the tariff explicitly to promote quality of care. For example, contracts between commissioners and NHS providers contain a list of so-called ‘never events’ for which no payment should be made (*see* Table 5, p 13). The most recent list (Department of Health 2012e) contains 25 items such as wrong site surgery and maladministration of potassium-containing solutions.

In addition, a number of ‘best practice tariffs’ have been introduced where the costs are below the national average for the procedure concerned, where there is significant unexplained variation in current practice and where the evidence base defining good practice is strong. The current list includes cholecystectomy, cataract, fragility hip fracture care and acute stroke care, interventional radiology, primary total hip and knee replacements, adult renal dialysis, Transient Ischaemic Attacks (TIAs), paediatric medicine and day cases in breast surgery, general surgery, gynaecology, orthopaedics and urology. The box below summarises the process of constructing the best practice tariff for cataracts.

Best practice tariffs: Cataracts

Establishing a best practice tariff (BPT) first requires establishing what is considered to be best practice. For cataracts – a very high-volume operation – best practice guidelines had already been developed and published by the NHS Institute in its *Focus on Cataracts* (NHS Institute for Innovation and Improvement 2008) report. In addition, the Royal College of Ophthalmologists had also produced guidelines on best practice. As the 2010/11 guidance for Payment by Results summarised this guidance:

In cataract treatment, an important element of best practice is to treat patients in a joined-up and efficient way, by carrying out all assessments before surgery at the same time, operating as a day case procedure in all but exceptional cases, and then carrying out all follow-up assessments on one day around two weeks later. (Department of Health 2010b)

Establishing the value of the national tariff first involved breaking down the new, streamlined cataract pathway into existing HRG units – from initial assessment in outpatients through to surgery (as a day patient) in hospital and then follow-up in outpatients. The overall tariff for this new pathway was essentially the sum of the average national costs for each element of the pathway (Department of Health 2010b).

As a further incentive, the Commissioning for Quality and Innovation (CQUIN) payment framework (introduced in 2009/10) means providers can earn an additional 2.5 per cent of income if they meet specified standards in any of four services: in the case of venous thromboembolism (VTE), one of the two nationally determined services, this is defined as ensuring that at least 90 per cent of inpatients have a VTE risk assessment in admission. The other nationally determined service, patient experience, is based on the results of a questionnaire administered annually to a large sample of hospital patients. Another two services are locally selected.

Redefining the 'product' and the price

Given that the tariff as it stands routinely covers a large number of activities such as diagnosis as well as treatment, it has been recognised that a case for unbundling exists to allow competition for separate elements of a care pathway. The initial focus was unbundling the costs of scans from: joint replacement HRGs (including hip and knee replacements); general surgery, ENT, orthopaedics, urology and gynaecology outpatients; and post acute rehabilitation after stroke, fractured neck of femur, elective hip replacement and (community acquired) pneumonia HRGs.

Unbundling of hospital tariffs is also allowed so that care can be delivered closer to home and to prevent primary care trusts (PCTs) paying twice for services commissioned outside the acute hospital.

It has also been recognised that the tariff might not fit local circumstances or all types of care or service. For the 2011/12 financial year, flexibility was introduced allowing commissioners and providers to agree prices lower than the tariff in exceptional circumstances (Department of Health 2010a). In order to 'protect' the national tariff, the flexibility may be used only where:

- it supports the provision of better patient care
- it supports services redesign
- it results from local agreement
- there is an audit trail
- time limits are set.

Local commissioners have also been given freedom to make innovation payments, providing that the following criteria are met:

- payment should be for a fixed period
- relevant cost-effectiveness information should be reviewed
- the price should be agreed in advance
- there should be appropriate procurement arrangements.

These 'allowed' flexibilities appear to provide a great deal of local freedom: what is not clear is whether the Department of Health has ever intervened to ensure these freedoms are not abused.

Table 5, opposite, summarises these and other variations to the PbR payment approach that have been introduced since its implementation. Many of these flexibilities are subject to conditions and time limits. The overarching condition is that any variation – whether varying the tariff (generally downwards, but exceptionally upwards) or changing the nature of the 'product' (eg, by bundling up elements of care) – needs to be clearly beneficial to patients and the NHS. In addition, there is a very broad flexibility or safety valve in the system that allows strategic health authorities the freedom to 'manage risks and pressures associated with PbR' (Department of Health 2012c).

The continuing roll-out and development of Payment by Results

PbR remains a developing project with modifications and expansion planned by the Department of Health as a result of pilots and further changes arising from the Health and Social Care Act 2012.

Table 5 Payment by Results variations and flexibilities

Variation/ flexibility	Payment variation	Contract models	Flexibility to shift resources across settings	Extent of implementation
CQUIN	Penalty of up to 1.5% of whole contract for failure to deliver on set quality goals and targets, rising to 2.5% in 2012	Locally prioritised national targets annually renegotiated	None	Universal
Payments for local service improvement	Other 'consequences' (penalties or rewards) for other mandatory quality requirements, contract breaches, planned service improvements; can include risk-sharing for service redesign	Locally negotiated. In principle could be multi-year if commissioner can be confident of financial flexibility for any rewards/risk-sharing. Can be built into tenders for service redesign	Possible for service redesign	Not well documented. Few examples identified of payment innovation by commissioners for service redesign
Best practice tariffs	Case payment set at day case rate for some procedures. Extra payment conditional on use of specialised units	Same as for other elective or emergency admissions	None	Widespread though modified by block contracts
Penalties	No payment for emergency readmission within 30 days. No payment for occurrence of 'never events'	Mandatory part of standard contract	None	Variation in rigour of enforcement
Unavoidable costs	Market Forces Factor modifies individual hospital income (but not commissioner payment)	Nationally determined and applied	None	Universal within Payment by Results
'Cherry-picking'	Commissioners adjust tariff downwards if provider limits types of patients treated, resulting in lower costs	Optional part of standard contract	N/a	Not known
Outpatient procedures and day cases	Outpatient tariff adjusted locally to reflect actual costs of movement of service from day case to outpatient setting	Commissioners and providers agree variation. Flexibility is time limited	Yes; shift from day case to outpatient or other setting	Not known
Bundling for pathways	Payment for agreed bundling based on aggregation of payments for separate elements of bundled service	Agreed locally	Yes	Not known
Unbundling	Payment based on cost of unbundled elements of care	Agreed locally; certain conditions apply (eg, case needs to be made that unbundling necessary 'to achieve significant policy objectives')	Yes	Not Known
Innovation payments	Additional payments for new devices, drugs, treatments etc over and above tariff	Agreed locally. Time limited	None	Not known
Specialised cardiac top-ups	Additional payments for specific specialised services eg, 24 hour primary percutaneous coronary intervention	Agreed locally	None	Not known

For example, following the results of a consultation carried out in 2005, a number of pilots were established to test the feasibility of tariffs covering all the costs incurred in an extended episode of care or over a specific time period such as a year. The evaluation concluded that some ideas had emerged that could be developed into national tariffs but in many cases lack of adequate data created an obstacle to further development (PriceWaterhouseCoopers 2009).

In 2010 a second pilot phase was begun covering paediatric diabetes, pulmonary rehabilitation (in cases of chronic obstructive pulmonary disease), community services, particularly those associated with a shift in care, pathway projects and outcome-based payments. Results are not yet available.

In 2011 work began on a long-term year of care model (Department of Health 2012d) as a direct response to the growing number of people with multiple long-term conditions. It covers hospital and community health services (but not GP services) as well as social care.

New payment methods are being introduced in a number of areas, notably mental health and maternity services (Department of Health 2012b) as well as specific disease areas such as cystic fibrosis care and young people with diabetes (NHS Diabetes 2012).

Overall, however, while there has been a commitment for some time to develop new forms of tariff, progress has been slow.

New roles for the NHS Commissioning Board and Monitor

The Health and Social Care Act 2012 makes it clear that there will continue to be national tariffs but introduces important changes to the way they will be determined. Currently, overall responsibility for the tariffs lies with the Department of Health – although much of the day-to-day development work is carried out in the local NHS. The Act transfers responsibility for PbR to the NHS Commissioning Board and to Monitor. Broadly, the role of the Board is to set out general principles and the role of Monitor is to devise a payment system in the light of these.

Monitor has a specific responsibility for the approval of local tariffs and for determining exceptional tariffs where the services of a loss-making provider are to be retained. Monitor must publish a national tariff document which sets out:

- which health care services are covered by the national tariff
- the national price of those services
- the method used to determine that price.

It *may* also set out:

- proposed variations to national prices and rules governing when variations can be agreed
- rules on making the payments to providers
- rules for determining the price payable for services not covered by the national tariff.

From 2013/14, the Secretary of State will set a formal mandate to the Board every three years, updated annually. The mandate will be subject to public consultation and Parliamentary scrutiny, including by the Health Select Committee. It will include the Board's responsibility for outcomes – as based on the NHS Outcomes Framework – and the financial allocation for NHS commissioning. The draft Mandate (Department of Health 2012a) is structured round some high-level objectives: the Board's task will be to determine how the existing payments systems should be modified to promote or support these objectives.

Impact of Payment by Results

Evaluation of any financial incentive system in health care is essential given the complex work/culture/economic environment in which such schemes must operate. As Glasziou *et al* (2012) note, financial incentives can improve the quality of clinical practice, but a review of the evidence reveals that such schemes can also be an expensive distraction. Table 6, below, adapts a checklist of nine questions to ask of financial incentive schemes aimed at clinicians – but adapted here to read more generally for payment schemes such as PbR (note that comments are ours, not the original authors’).

Table 6 A checklist for the introduction of financial incentives

	Question	Comment
Is a financial incentive appropriate?	Does the desired action improve performance?	There is clearly little point in incentivising a health care organisation to carry out an activity for which there is little or no evidence of patient benefit. PbR’s general incentive to increase activity may lead to increases in areas where there is less benefit to patients than other activities.
	Will undesirable performance persist without intervention?	It is important to quantify the extent and trends (getting better, getting worse?) of the problem the incentive scheme is intended to fix. The problem may be reducing anyway.
	Are there valid, reliable and practical measures of the desired performance?	PbR measures activity to calculate payment. But other options are available, including metrics based on outcomes. However, are these reliable? Can they be independently verified?
	Have the barriers and enablers to improving behaviour been assessed?	The organisational/clinical environment in which the financial incentive scheme operates will help and hinder its impact. For example, the impact of PbR on a trust’s efficiency may be reduced if incentives are not passed down through the organisation to clinical teams.
	Will financial incentives work, and work better than other interventions, to change performance, and why?	As there are many ways to change the performance of individuals and organisations, which approach to use will not just depend on its effectiveness...
	Will benefits clearly outweigh any unintended harmful effects, and at an acceptable cost?	...but on whether benefits outweigh costs. Costs and benefits will include the unintended (harmful and beneficial) side effects too.
Implementation	Are systems and structures needed for the change in place?	While a PbR may in theory provide an incentive to increase activity, for example, some providers may find it difficult in practice to respond given constraints on, for example, investment to expand facilities at the margin.
	How much should be paid, to whom, and for how long?	Setting the PbR tariff at the national average cost per HRG – but allowing cross-subsidisation within providers is likely to reduce the effectiveness of the scheme.
	How will the financial incentives be delivered?	The measures used to ascertain payment – in the case of PbR, primarily activity – are clear. But the rules for flexibility (on price and the activity being paid for) are less so.

Source: Adapted from Glasziou *et al* (2012)

NB Comments are ours not the original authors’. We have also taken the liberty of generalising the questions to refer to ‘performance’ (of the system) rather than ‘patient outcomes’ or ‘behaviour of clinicians’ as originally used by Glasziou *et al*.

While this checklist provides a useful set of preliminary questions, it is more difficult to establish how PbR has operated in practice. A major obstacle to assessing the impact of PbR is that since its introduction the NHS has been subject to a vast range of measures designed to improve its performance; the impact of any one is necessarily hard to detect.

Evaluation of Payment by Results in practice

To avoid the difficulty of assessing PbR against the background of other changes in the NHS, Farrar *et al* (2010) took advantage of the fact that PbR was not introduced in Scotland and compared the performance of the two systems. They concluded that the introduction of PbR in England appeared to have led to more rapid reductions in lengths of stay and in the proportion of day cases than in Scotland, resulting in cost savings of one to three per cent. However, they were unable to determine its impact on the volume of activity since they could not disentangle the impact of the tariff from the effect of the rise in financial resources that became available to the English NHS during the same period. In another analysis they compared NHS trusts and foundation trusts in the period when PbR only applied to the latter and also identified an impact on length of stay and day cases.

The introduction of PbR may, however, have had a less tangible impact. The Audit Commission (2008) concluded that the introduction of PbR had 'encouraged a more business-like approach from many providers [including] tighter financial planning financial management and performance management' (p 33). Given that until recently the NHS did not operate within a competitive environment these might be considered important benefits and an essential precursor to the effective creation of a market in health care services. However, there is no quantitative evidence of their importance or impact.

There is very little evidence on the impact of PbR on quality. One of the original expectations of PbR was that it would, by removing the need to negotiate on price, help commissioners and providers to focus on the nature and quality of care. The Audit Commission found little evidence that it had had this effect. However, in its review (2008) of the early years of PbR it identified no evidence that quality had been compromised. While noting the rise in readmissions during this period, it concluded that they could not be attributed to the introduction of PbR.

There is evidence that the potential for hospital trusts to earn extra payments through CQUIN has not been fully exploited (Health Mandate 2012), which suggests its *positive* impact has been limited. Farrar *et al* (2010), using a limited range of indicators, at least found no *detrimental* impact on care quality. A study of treatment of hip fracture, for which a best practice tariff exists, found that since it had been introduced standards of care had rapidly improved (National Hip Fracture Database 2012). However this could be attributable simply to the publication and audit of the standards.

Not playing by the PbR rules and other problems

Any estimate of the impact of PbR has to be tempered by the fact that nearly a decade after its initial introduction, PbR has not worked as originally intended. A recent study (PriceWaterhouseCoopers 2012) found that the downward pressure on costs imposed by the tariff was mitigated in practice by cross-subsidy from other sources of income, including non-tariff services (ie those lying outside the scope of the tariff such as mental health), payments for training medical and other staff, and income from research contracts, for example, for clinical trials, from both public and private sources.

The PriceWaterhouseCoopers (PwC) study also suggests that the system is often ignored by purchasers and providers at local level. Since its publication examples have emerged in the trade press of block contracts and other forms being agreed that are not consistent with PbR. Not surprisingly, in recent years the proportion of income hospitals earned from tariff payments has actually fallen.

PwC concluded that the basic flaw in the system as it stands is that the cost information underlying PbR is weak. In particular they found that:

- providers reported very different unit costs for the same services
- some of this variation arose from difference in costing methods, although national guidelines are available
- some cost drivers such as the age and morbidity of patients are not taken into account.

Not surprisingly the report's main technical recommendation was that cost information had to be improved.

The PwC report showed that the current system produces both under- and over-payment in an apparently random way. On this basis there is no reason why local providers should invest/disinvest in profit- or loss-making services. It is rational for hospital management simply to focus on the overall financial viability of the organisation as a whole and not concern themselves with whether or not particular 'product lines' appear to be profit- or loss-making at a particular point in time. As a result, incentives effects at the speciality or directorate level are reduced if not negated.

These findings led to the conclusion that the system as a whole had lost credibility. The Audit Commission reached a similar conclusion in an earlier report (2008), finding that 'the credibility of the tariff is an issue for primary and secondary clinicians alike' (p 46). Because of this lack of credibility PwC concluded that providers and commissioners 'are increasingly deciding to negotiate reimbursement locally, and to "work around" the tariff by, for example, agreeing levels of activity within specified budgets' – more or less the system in place before PbR came in – or simply removing parts of the tariff through amendments to contracts. The report also found that there had been no attempt by the Department of Health to assess the scale of compliance or non-compliance.

Overall, the policy does not appear to have much bearing on the reality. On the one hand, the Department of Health has remained committed to developing PbR to include all hospital services as well as community-based services such as physiotherapy, and for it to remain a national tariff. On the other hand, the national tariff seems to have only a loose relationship to what happens on the ground.

Before considering what might be the best way forward, and whether or not PbR is the right payment system for the NHS in the coming years, we review the experience of other countries with similar systems.

3 The international experience of paying for health care

Internationally, there is now more than three decades' experience of the use of activity-based systems for measuring and/or paying for hospital care. The Medicare system of social health insurance for the elderly introduced activity-based payment in the 1980s – using Diagnostic Related Groups (DRGs) as its activity measure – to replace traditional fee-for-service payment, with the objective of increasing incentives for efficiency in acute hospital care and better controlling growth in overall expenditure.

Throughout the 1990s and 2000s, more than half of all Organisation for Economic Co-operation and Development (OECD) countries and a growing number of developing countries introduced activity-based payment systems of one sort or another. In most of these countries, the new payment systems replaced global budgets or input-based budgets, and the objective of reform was most often to increase hospital productivity and activity; other objectives included reducing waiting times, supporting patient choice or other forms of hospital competition.

Despite superficial similarities, there is considerable variation across countries in key dimensions of their case-mix systems, from the way the unit of currency is defined and the costs covered by payments, to the way prices or tariffs are set and the way payments are integrated into the contracting system. Below we describe the many payment system variants, summarise some of the evidence of impact on health care performance and management and conclude with some lessons to be learned and current experiments with alternatives to activity- or case-based payment systems. (We use the term 'activity-based' to encompass 'case-based' payment systems. The 'activity' or 'case' is defined differently in different systems (and changes over time) but in essence defines the 'product' being paid for, eg, a particular surgical procedure or diagnostic test.) We also include selective references to the English Payment by Results (PbR) approach for comparison.

Defining the 'currency': patient classification systems

DRG systems for classifying acute hospital admissions in Europe, for example, range from using around 500 to more than 30,000 groups, and adopt a range of ways of adjusting for complications and co-morbidities. Countries using smaller numbers of groups typically have to make more adjustments to DRG prices (eg, for outliers and for high-cost drugs, devices and diagnostics). Some systems give more weight to procedures, length of stay and care setting; others give more weight to patient characteristics associated with higher care costs. In theory, these differences might be expected to lead to differences in the extent to which case-payments create incentives for minimising costs per case, for under-treatment, for risk selection, for innovation and for 'up-coding' and 'DRG creep' (where hospitals find it financially advantageous to classify patients to groups attracting higher payments).

Most of the major case-mix classification systems have a programme of refinement and updating. This usually leads to increases in the number of payment groups and increased complexity over time, driven by objectives of fairness in payment across providers and

avoidance of incentives for risk-selection or under-treatment. An exception to this trend is the Netherlands, which began with a disaggregated system of more than 30,000 hospital payment groups for different patient pathways. The Dutch are now consolidating these to around 3,000. Some, but not all, countries are expanding the range of health care covered by activity-based payment, including: hospital outpatient services, rehabilitation and mental health services. In theory, applying similar principles and methods for payment to different settings of care can help to reduce incentives for cost-shifting (Busse *et al* 2011).

The scope of costs covered by activity-based payment systems

In countries where some or most hospital specialists work as independent practitioners or medical groups rather than salaried hospital employees (such as in the United States), activity-based payments exclude the costs of these hospital consultants' services. A separate system is then used to reimburse independent hospital specialists. This may be based on fee-for-service or capitation, increasingly combined with pay-for-performance and/or some form of risk-sharing for their patients' other hospitalisation and ambulatory care costs.

Some countries (eg, Ireland, Denmark, Australia and Germany) exclude the costs of major capital expenditure from their activity-based payments, financing capital by separate capital grants, though Australia and Germany plan to incorporate capital into DRGs in future (Wright 2009).

Costing and pricing currency units

Aside from variations in costing methodologies, there are some policy-based differences in approach to setting prices for case-mix currencies. Most countries use the average of actual costs from a sample of providers to set a basic price or relative resource weight for each DRG/Healthcare Resource Group (HRG), with across-the-board adjustments for inflation and expected efficiency gains.

Because this method is 'backward-looking', a number of countries adjust prices of selected units of activity or make additional payments for new technologies or other innovations that increase costs per case. The NHS in England is one of few that have attempted to use 'best practice' to adjust costs and set prices for some activities, both to drive cost reductions (eg, pricing based on day patient treatment costs where appropriate) without affecting quality and to permit quality-improving innovations that increase acute care costs (eg, care in specialist stroke units).

Some countries have used price competition or competitive negotiation to set the prices of some activities – usually routine planned services subject to patient choice or competitive tendering (eg, the Netherlands, Australia (Victoria), Sweden (Stockholm County)). Victoria and Hong Kong invited providers to compete for funds when they had surgery waiting lists above historic levels. In this way they increased elective activity at marginal cost from hospitals with spare capacity (Street *et al* 2007).

Payment systems and contracting

Some countries use activity-based systems primarily for budget allocation, planning hospital services and for monitoring and benchmarking hospital performance. This approach is common in decentralised health systems and in countries that do not have a full purchaser-provider split. They use case-mix tools as one component of their methodology for allocating budgets to sub-national governments (eg, in Australia, Denmark and Sweden) or to regional hospital or health boards (eg, in Finland and

some Canadian provinces), or within a hospital or hospital network (eg, Hong Kong). Decentralised countries may give local authorities flexibility over how to use case-mix payment, if at all, for their local hospitals and only mandate activity-based payment for a relatively small share of hospital activity, for example for patients treated outside of their local area (cross-boundary flows), or to create incentives for regions or boards to increase elective surgery for procedures with long waits.

Many other countries use case mix as their main method of paying for acute hospital admissions (eg, the United States, Germany, some states in Australia, France, the NHS in England, Netherlands and some regions in Denmark). It is important to note that in most of these countries, activity-based payments account for considerably less than 100 per cent of funding for public hospitals. Activity-based payment is combined with other types of payment currencies (global budgets or block contracts, fee-for-service, bundled payments, pay-for-performance). These payments encompass: payments for non-medical services (principally teaching and research), services not covered by case-mix classification systems (eg, rehabilitation), private patient services, and extra payments for patients that attract an activity-payment (eg, limited lists of high-cost drugs, devices and diagnostic tests, per diem payments for delayed discharges).

Global budgets or block contracts continue to account for a significant but varying share of public hospital income (*see* Table 7 below). Rural hospitals that provide critical access but would not be financially sustainable under case-based payment are paid via block contracts in the United States and Australia. Some countries have reduced the share of activity-based funding for hospitals at times. This occurred in Sweden (Stockholm County) and Norway when they needed to control activity growth in order to live within budget constraints (Street *et al* 2007; Busse *et al* 2011). There is a spectrum of practice on global budgets contracting: at one end of the spectrum, global budgets may be set or adjusted over time in sophisticated ways using measures of activity (including cost-weighted case mix), other measures of patient need and measures of efficiency. At the other end of the

Table 7 Approximate percentage of hospital revenue that is activity-based

	Portugal	Sweden (Stockholm)	Ireland	Australia (Victoria)	Norway	Spain (Catalunya)	Denmark	Germany
1990	10							
1991								
1992		100						
1993			20	26				
1994				41				
1995		70						
1996								
1997					35			
1998	20					30		
1999	30							
2000				70			10	100
2001							15	
2002	50							
2003								
2004							20	
2005					60		45	
2006					40			
2007			50					

Source: Street *et al* (2007)

spectrum, global budgets may simply represent historic expenditures on a particular service with negotiated adjustments influenced more by availability of funds and relative negotiating power.

It is important to note that countries (except the United States) that use activity-based hospital payment methods impose some form of volume or budget cap or target on part or all of hospital activity in their contracts with providers. Some countries share risk of variation around activity targets between payers and providers using similar provisions to those used in block contract agreements in the NHS in England. Germany has introduced discounted prices for activity growth above an earlier year's level to reduce incentives for activity growth. It is noteworthy that these methods have been used by some European countries that give patients choice among a mix of public and private hospitals, some of which are likely to be subject to EU competition law.

There is wider variation across countries in the extension of activity-based payment to areas other than acute hospital admissions. Some countries have already implemented activity-based classification systems for paying for specialist outpatient care and others plan to do so. Extension of activity-based payment methods to sub-acute services (such as rehabilitation, palliative care), non-acute services (such as nursing home care) and mental health services has proved much more challenging. Most countries continue to use either global budgets (particularly for services with integrated delivery systems) or fee-for-service payment methods (for services with patient choice and private sector competition) in these areas. Some countries are experimenting with combining global budgets or fee-for-service with outcome-based payments. Case-based prospective payment along PbR lines is not possible for these services because the resources needed for patient care cannot easily be determined in advance on the basis of diagnosis. Some drivers of the costs of patient care may be identifiable in advance by individual needs assessment, but while standardised assessment tools are used by countries as part of social care payment systems, few countries apply this systematically to sub-acute or chronic medical care. Factors that make prospective payment difficult for mental health services, many other long-term conditions and end-of-life care are the unpredictability of the progression of illness and acute exacerbations, variation in the treatment and care models for a given patient profile, and the interaction between health care needs and the psychosocial context of individual patients.

Australia, the United States, the Netherlands and Canada (Ontario) have developed patient classification tools for sub-acute hospital services and/or for mental health services. The US Medicare system and some Australian states now have more than 10 years' experience in using standardised patient functional assessment instruments as a basis for prospective payment for rehabilitation, sub-acute and non-acute inpatient care and some home care. Nonetheless, there are recognised shortcomings and development challenges in these systems (Grabowski *et al* 2012). These countries have proceeded very cautiously in using these tools for activity-based payment for mental health services. The United States, the Netherlands and Ontario found it necessary to keep some elements of per diem payments for longer term mental illness, to make additional or separate payments for acute admissions and to make different payments for different care settings. Service specifications used in the Netherlands and Ontario for mental health services, for example, specify particular staff inputs, which in theory would dilute incentives for providers to innovate and make efficiency gains in the way that is possible under PbR (Mason and Goddard 2009). Australia has so far used global budgets and block contracting for mental health services, because of risks that activity-based payment might jeopardise integrated management of care across settings. However, it plans to update its mental health classification tool and cost mental health services with a view to using activity-based payment from mid-2013 (Health Policy Solutions 2011).

Many countries supplement activity-based payment systems with financial incentives for quality and other dimensions of performance, such as reduction in waiting times and co-ordination between hospitals and doctors practising in the community. Several countries have implemented non-payment for readmissions within a defined period (United States, Germany, England). Denmark, like England, introduced patient choice of alternative provider if waiting times guarantees are not met. A wide variety of designs of pay-for-performance schemes for hospitals are in use that pay rewards or penalties for achieving some combination of absolute levels of performance standards or improvement of performance on a mix of indicators. Victoria introduced powerful performance incentives by making payment for additional activity conditional on waiting times improvements (Street *et al* 2007).

Evaluation evidence

Many studies of the impact of activity-based payment in the United States after it was introduced in the 1980s found evidence that it reduced length of stay and reduced the volume of services, without having adverse impact on clinical quality. But because the reform focused only on acute hospitals, it is less clear that it reduced growth in total health care costs. In Europe and Victoria (Australia), where the payment method before activity-based payment was usually some form of global budget, evaluations have found that activity growth increased (in Austria, Denmark, England, France, Germany, Italy, Norway, Spain, Sweden and Victoria) after reform. In some but not all of these countries, payment reform produced one or more of the following benefits: reduced length of stay, increased technical productivity, reduced unit costs or reduced waiting times (summarised in Street *et al* 2007; Busse *et al* 2011).

Most studies of activity-based payment are one-off evaluations over the two to three years after implementation. There is very little evaluation of the longer term effects of such payment systems and the many adjustments that countries have made to these systems to refine them or address unintended effects and new health system challenges. One study in Sweden found that five years after payment reform, initial gains in productivity were reversed. It suggested this may have been the result of changes in contracts to move away from 100 per cent use of activity-based funding and towards the tighter control of activity in order to live within total budgets, along with a failure to reduce hospital capacity when length of stay fell (summarised in Street *et al* 2007).

There is very limited rigorous evaluation of whether or not pay-for-performance schemes for hospitals improve quality, and it is difficult to assess the evidence given the wide variation in approach (Petersen *et al* 2006). One review found that ‘The use of explicit incentives is still quite recent, the collective knowledge base regarding their design and effectiveness is limited and so their development remains largely a learning-by-doing process’ (Custers *et al* 2008). The US Medicare system has evaluated controlled demonstrations of paying performance bonuses to hospitals based on a combination of absolute standards and improvement over time in 30 quality measures across five disease areas. Despite initial improvement in scores, after five years there was no difference in performance compared with control sites. Evaluations suggest that quality incentives need to be of sufficient magnitude to have an impact. Medicare’s pay-for-performance scheme for hospitals (called ‘value-based purchasing’) has been estimated to change hospital revenue by a fraction of one per cent for two-thirds of hospitals (Werner and Dudley 2012). There is some evidence that performance incentives can have greater effects if they are tailored to the specific circumstances of the hospital. For example, a given financial incentive may have less effect on a hospital that is in financial difficulty or a hospital that faces stronger competition (Werner *et al* 2011; Jha *et al* 2012).

However, experience of activity-based hospital payment and pay-for-performance has provided a number of insights into the difficulties involved in their implementation and in devising better alternatives.

Start-up costs, data collection and operational complexity

Adjustment for case-mix complexity and any attempt to link payment to performance requires indicators that accurately measure performance and detailed costing. As case-mix payment systems have become more complex, some hospitals have struggled to identify the necessary information and produce the required data. Performance data can be hard to derive from existing administrative data which usually records what is done rather than the outcomes that resulted (with limited exceptions such as mortality data). Even where outcome data are available, differences in patient mix means that the patient scores need to be adjusted to make meaningful comparisons over time or across hospitals.

Pay-for-performance systems have significant start-up costs for initial planning and data gathering and ongoing operational costs. This can be a barrier to implementing such payments across whole systems even in health systems with detailed individual patient reporting to insurers. Research carried out by The King's Fund has shown that these costs may be high and hard to meet in a time of financial stringency (Greenwald 2011; Ham *et al* 2011).

Supply response

Payments must be adequate to maintain supply. If payment systems overstretch the finances of providers with above-average costs then providers in some locations may not be able to maintain supply in the long run. Conversely, they may not create enough incentive for providers with below-average costs to improve efficiency. Paying prices based on average cost can be justified only if the reasons for cost variation are known and allowed for in the tariff. Recent research for Monitor (PriceWaterhouseCoopers 2012) suggests that some sources of cost variation are not adequately taken into account, and that costing and pricing methodologies lead to cross-subsidies that affect hospitals unequally, so that differences in hospital costs relative to tariff are unrelated to individual hospitals' actual cost structures. Some European countries have taken a more cautious and gradual approach to the transition path in hospital payment from historic costs towards full implementation of activity-based payments based on average costs (Busse *et al* 2011).

Some evidence suggests that performance payments are more effective in changing behaviour if they are based on process indicators rather than outcome indicators that are less directly related to provider performance (de Bruin *et al* 2011). But if process measures are used as a proxy, they may not be well correlated with outcomes (Bhattacharyya *et al* 2009).

Unintended consequences and limitations

Some of the unintended effects of activity-based payment systems for hospitals have been addressed by refinements of the payment system or by additional contractual controls. Table 8 overleaf summarises widely recognised adverse effects and limitations and the range of policy responses to these in OECD countries (Busse *et al* 2011).

Table 8 Adverse effects and limitations of activity-based payment systems

Unintended effect or limitation	Policy responses
Increased hospital admissions	Volume or budget caps; volume risk-sharing agreements with providers; discounted prices for activity above agreed targets; restriction of activity-based payment to elective admissions; referral management measures in primary care; agreed treatment criteria/thresholds
Unco-ordinated care across settings	Disease management programmes; payments for case co-ordination; experiments with bundled payments for pathways or year of care for patients with chronic conditions
Under treatment	Additional payment for outliers, high-cost inputs, new technology; case-mix tools give increased weight to procedures, complications and co-morbidities; penalties for readmission; supplementary pay-for-performance
Cost shifting to other budgets	Development of costed activity-based payment tools for ambulatory care and rehabilitation; penalties for readmission; piloting of pathway-based payments
Cherry-picking of lower risk cases	Additional payment for outliers, high-cost inputs, new technology; case-mix tools give increased weight to procedures, complications and co-morbidities
'Up-coding' or misreporting	Data audit; avoiding excessive disaggregation of case mix

Experiments with alternatives to activity-based payment

There is widespread recognition that where activity-based payment for acute hospital care is combined with capitation or overall budgets for primary and community health care, payment incentives do not support shifts of care out of hospital or co-ordination between hospitals and community-based providers. Many countries are dissatisfied with the limitations of activity-based payment systems for patients with chronic conditions and with multiple conditions and complex ongoing needs. In spite of a widespread consensus that setting-based activity payments work against optimal management of care for these conditions, there has been relatively little innovation in payment models for chronic illness. Some health systems are beginning to pilot innovations, but as yet there is no emerging new payment model (Tynan and Draper 2008). More generally, countries are looking for payment methods that may provide more powerful incentives for service change – to encourage patient care in the most appropriate, cost-effective settings and to facilitate co-ordination or integration along patient pathways. The objectives of this new phase of hospital payment reform place greater emphasis on whole-system efficiency (rather than hospital efficiency), cost containment and care co-ordination for individual patients across settings.

The United States, the Netherlands and Sweden are among a growing number of countries experimenting with contracting for a whole pathway or episode of care for a particular condition. The Netherlands is evaluating a large-scale initiative to contract doctor-led care groups under adjusted capitation payments for a year of care for selected chronic conditions: diabetes, chronic obstructive pulmonary disease (COPD) and vascular risk management (deBakker *et al* 2012). In the United States there have been pilots of bundled payments based on 'episode treatment groups' that encompass physician, acute hospital, post-acute inpatient and ambulatory care costs from referral or admission to recovery for an extended episode of care. Sweden (Stockholm County) has recently piloted extended episode payment for joint replacement, combined with patient choice and provider competition, finding initial gains in productivity and activity (Health Care Incentives Improvement Institute 2012). Bundled payment pilots in the United States have typically left activity-based and fee-for-service payment systems in place and used these as building blocks for attaching prices or setting budgets for care bundles. Payer contracts often share gains with providers and may share losses of bundled payments.

In spite of the conceptual attractions of bundled payment, there is caution about the very complex technical and operational issues to be worked out in defining episodes, setting payment rates and case-mix adjustment, choosing how to allocate the incentives to the different providers involved in an episode, and drawing the boundary between other payment streams and methods if unintended effects are to be avoided. The technical challenges are more easily overcome for conditions with a clear clinical understanding of the beginning and end of the episode, well-established clinical norms or guidelines, well-understood service patterns, reasonably predictable progression, pre-existing integration of management of service-delivery for the condition, and ease of attributing accountability to the providers involved. These factors tend to be easier for elective procedures (such as joint replacement) and difficult for many chronic conditions (such as COPD) (Pham *et al* 2010; Sood *et al* 2011).

For chronic conditions, there is some international experience and evaluation evidence for bundled payments for year of care for some chronic conditions, including mental illness. Pilots have been carried out by Medicare and some private sector integrated health systems in the United States.

The evaluations of the Netherlands' year of care initiative may be more relevant to the NHS as its model of health service delivery is more similar to that in England. The scheme sought to reduce fragmentation within primary care and bridge the division between primary and specialist care for chronic disease patients, where the traditional 'gatekeeper' role for GPs is inappropriate. The bundled payment goes to a principle contracting body – the care group – which is responsible for organising care and accountable for its delivery. Initial findings point to some benefits in provider collaboration, care co-ordination and compliance with clinical guidelines. However, the scheme has high administrative burdens (though these may be mitigated over time by innovation and adaptation in ICT systems), has seen wide cost and performance variation across care groups not explained by differences in the amount of care provided, has given rise to concerns among payers about market concentration and power of larger provider groups and about 'double funding' (via the bundled payment and via the traditional payment methods for GPs and hospitals) and cherry-picking of less complex cases by care groups, and has not yet produced changes visible to patients (Struijs and Baan 2011; de Bakker *et al* 2012).

It is not yet clear that episode and condition-based bundled payments will yield a new model for paying for much care for chronic illness for the elderly. The early experience of bundled payment in US and Dutch initiatives highlights the challenges.

- Administrative and data costs and complexity is higher than with case-based or fee-for-service payment alone and requires significant up-front investment of time and resources.
- It is likely to take many years to tackle the technical challenges of defining care bundles and agreeing with clinicians what care should be included in bundles and which care costs are potentially avoidable.
- The transfer of increased risk to providers leads to incentives for cherry-picking and under-treatment that have to be managed by well-developed quality monitoring, and may require additional payment adjustments and risk-sharing between payers and providers.
- There is a 'chicken and egg problem' in driving effective service redesign: payment bundling without organisational and managerial integration creates service-delivery and financial risks; but without payment bundling, providers may lack incentives to collaborate and shift care to the 'right' setting.

- Bundled payment may increase risks of dominant lead-providers emerging. This can increase prices for payers and unduly limit choice for patients over time.

It is far from clear that bundled payments for single diseases or conditions is the right path for the NHS given the marked differences between our health system and those of the United States and the Netherlands. Fragmentation of service provision is a much larger concern in these systems than in the United Kingdom, though England shares with the Netherlands the challenge of bridging the primary/acute care divide and of working with a fragmented primary care structure. But while the Netherlands has very large nationwide commissioners, well placed to use scale and manage risk, the NHS has highly fragmented, small commissioners with limited ability to use scale or bear risk. Conversely, the Netherlands has a smaller, fragmented service delivery set-up while the NHS has larger, sometimes dominant providers.

Nor is it yet clear how the restructured English NHS could emulate the US or Dutch bundled payments initiatives given the division of commissioning responsibility and funding for primary care (the NHS Commissioning Board) from acute care and community health services (clinical commissioning groups). Further, the NHS currently lacks systematic tools for patient assessment, classification and costing of care for sub-acute, non-acute and other community health services. Without these building blocks, it may be difficult to develop sophisticated bundled or capitated payment models that incorporate quality measurement and share risk appropriately between payers and providers. Nonetheless, bundled payment initiatives have stimulated better co-ordination of care, improved the usefulness of the quality data collected, and improved clinical engagement and relationships between payers and providers (Hussey *et al* 2011; Mechanic 2011; Sood *et al* 2011) These benefits are relevant to the current objectives of the NHS and should be facilitated by greater GP engagement in commissioning.

A further concern is that for the growing numbers of older patients with multiple conditions, year of care payments and incentives around a raft of separately viewed single conditions could introduce new dimensions of service fragmentation that could make care less holistic and harder for the patient to navigate (Ham 2007). This is particularly problematic for patients whose needs may span several bundles of overlapping health care packages, or who have complex needs that require co-ordination with social care. Incremental adjustments to a system built on payment by results are unlikely to be sufficient in providing the right kind of incentives to deliver high-quality integrated care to these patients.

For this reason, we believe that bundled payments would need to operate alongside other payment methods, leading to a complex matrix of payment and contractual models and associated costing and monitoring methods. Different payment methods may be needed not only for different bundles of services but also for different categories of patients. The costs and benefits of the complex systems and processes involved have not yet been assessed. Some US and Dutch health researchers have concluded that these bundled payment developments should not be seen as the desired end-point for payment reform. Rather, they could best serve as a bridge from current highly fragmented care and activity-based reimbursement to a future scenario in which provider groups would be willing and able to move to a risk-adjusted capitated payment model and take clinical accountability for the continuum of care for a defined patient population, accompanied by performance-related pay (Pham *et al* 2010; de Bakker *et al* 2012).

The United States is the country with most experience of capitated payments deriving originally from the method used to pay multi-specialty groups in California where the culture of medicine is different due to the historically important role of health care group Kaiser Permanente (J Robinson, personal communication 2012). Capitated payments in Kaiser Permanente grew out of the model of pre-paid group practice on which it was

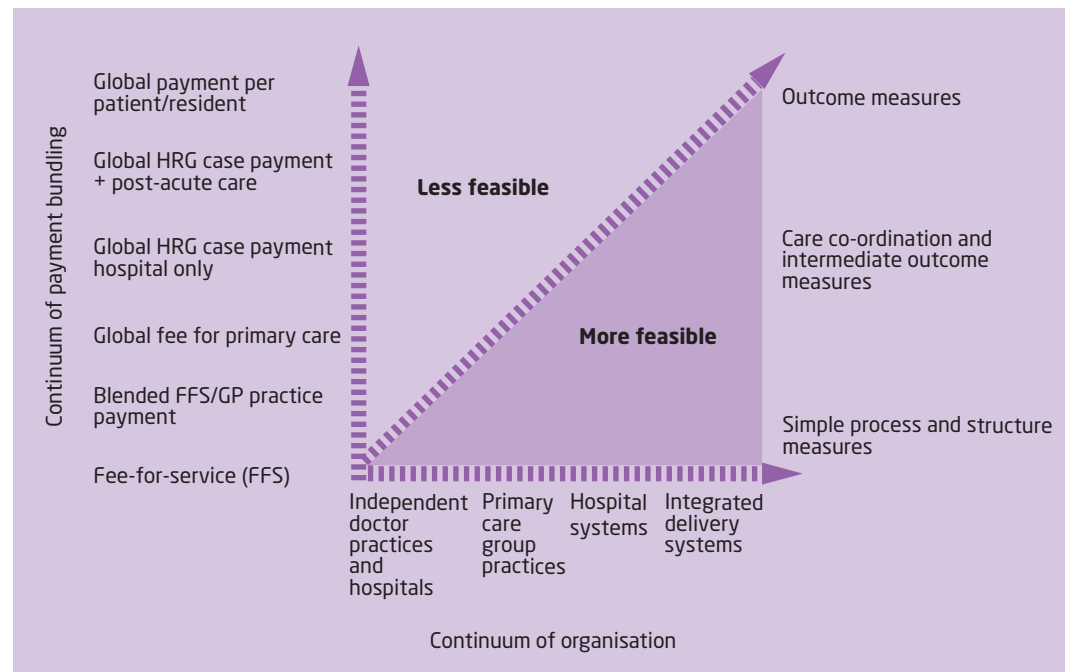
founded and spread rapidly in the 1980s and 1990s in the managed care era. The rates paid to medical groups are adjusted for age, gender and health status and the scope of services covered may vary from some to all, in which case it is called global capitation. This form of payment creates incentives for medical groups to manage care effectively and to invest in the prevention of illness and not just treatment services. One of the lessons from managed care was the need for medical groups to have the expertise to take on these sorts of capitated budgets.

Medical groups and integrated delivery systems operating under global capitation take on a budget for the population of patients or members they serve and this is neither formed from, nor disaggregated into, disease-based budgets. This enables these groups and systems to focus on people with co-morbidities and complex needs first and foremost and it avoids the risk of creating silos of care based on single diseases or conditions.

The United States has also seen a new phase of experimentation with capitation payments to medical groups or managed care systems. Unlike earlier capitation contracts, these new pilots usually blend capitation with activity-based payment and quality incentives and share gains and losses with providers. Also, patients are typically given the choice of obtaining care from non-group providers even though their own medical group remains responsible for total costs of their care (Frakt and Mayes 2012).

As discussed, global capitation requires there to be an organised provider of care with a range of expertise able and willing to accept the financial and clinical risks involved in this payment method. Figure 4, below, illustrates the relationship between the degree of bundling of payments and the continuum of organisations able to accept these payments. Any move towards global capitation in the English NHS would need to take heed of this lesson and ensure that integrated medical groups and delivery systems had the capability to work in this way.

Figure 4 Organisation and payment methods



Source: Adapted from Commonwealth Fund (2009) (p 35, Exhibit 18)

We now look at how our payment system should develop, and at the future role of PbR, given the varied experiences and lessons from abroad, the future health and social care needs of the population as a whole, and the financial challenges faced by the NHS.

4 Can Payment by Results be made fit for the future?

The way care is currently paid for in the English NHS has developed incrementally in response to new and changing policy objectives. In particular, Payment by Results (PbR) was developed when resources were increasing and there was a commitment to reduce long waiting times. Although policy objectives and the context have changed, the fundamental structure of payments has changed little.

In this section we outline the major challenges faced by the NHS over the next five to ten years and identify five objectives where the current (or a slightly modified version of) PbR is likely to provide support – such as by improving cost and quality performance. The objectives are largely related to changes in the nature of demand for health care, such as promoting greater integration and shifting the location of care, where new and different approaches are needed. We then draw some conclusions about the future issues that the government and other bodies need to address when developing approaches to paying for care.

Future challenges

A recent analysis by The King's Fund has highlighted the main challenges facing the health and care system in the future (Ham *et al* 2012). These include the relative neglect of prevention and the threat posed by risk factors such as obesity; the demands created by the ageing population and the increased prevalence of long-term conditions; wide variations in the quality of care with evidence that lives could be saved and outcomes improved by the more systematic adoption of best practices; fragmentation between services that inhibits the provision of high-quality integrated care; and an overreliance on hospitals and care homes linked to the under-development of primary care and community services.

The key question is: what can the payment system, in addition to other policies, contribute to the NHS's ability to effectively respond to these challenges? In other words, what changes would be needed to how we pay hospitals and other providers if the NHS is to increase efficiency and productivity and improve quality, to meet and manage demand for care, promote integration, shift the location of care, promote prevention and promote innovation.

Reducing costs and promoting efficiency

While the current payment structure for hospital service provides general incentives to improve efficiency in the delivery of care, these are weakened by the way that hospital providers respond to the prices they face and to the limited scope of PbR. It may put pressure on hospital finance as a whole but, as we have already seen, even this effect may be diluted from cross-subsidy from income from other services and other sources such as training and research (PriceWaterhouseCoopers 2012).

The evidence suggests that providers have limited interest in the profit or loss on individual services. So PbR does not transmit much, if any, pressure to be more efficient within the individual hospital specialties. Few trusts have successfully implemented service line reporting and specialty budgets using PbR-based costs and prices (Foot *et al* 2012). Trusts that have also face the challenge of assigning overheads to particular specialties. As overheads account for a significant proportion of expenditure but are not amenable to influence by the clinical team, the ability to deliver efficiency improvements is limited.

Use of the efficiency incentive in PbR appears to have been successful in forcing costs down, but it is not clear how far this process can go. In the light of the findings of the reports by PriceWaterhouseCoopers (2012) and Frontier Economics (2012) submitted to Monitor, it is clear that if PbR is to continue in more or less its present form then the cost data underlying it and the analysis of the cost drivers must be improved.

Unless these deficiencies are tackled, the use of the tariff to drive costs down either through an annual efficiency factor or the use of lower than average costs risks destabilising the finances of some providers without justification, and reduces the incentive to carry out long-term investment across all providers. The implicit assumptions of this use of the national tariff are that all providers have similar cost structures and enjoy similar scope for making cost reductions. These assumptions must be rigorously tested.

Given the limits to achieving further technical efficiencies through downward pressure on prices, the payment system needs to consider how it can support improvements in the efficient allocation of funds. This will require a greater focus on the *structure* of currencies rather than the price that is set. Up until now the definition and scope of healthcare resource groups (HRGs) has largely determined the definition of the service/episode/product. This does not need to be the case. A focus on allocative efficiency suggests a move towards more bundled payments along pathways where the scope for efficiency gains is likely to be greater. For example, these could incentivise earlier supported discharge from hospital, such as in cases where patients no longer require acute treatment, or greater use of low-intensity beds in intermediate care or community facilities.

In other regulated industries there is not the same degree of complexity in the pricing structure that has been created in the NHS (Dixon *et al* 2012b). Incentives for efficiency are reflected in the revenue caps that are set for the company as a whole. If larger integrated delivery systems were to develop in future, for example from Academic Health Science Networks, efficiency incentives could be created by applying an overall revenue cap (while balancing the need for capital investments).

Another strategy would be to rely on price competition. The Coalition has rejected this on the grounds that it poses a risk to quality. Evidence from the United States supports this view (Office of Health Economics 2012). However, contrasting evidence from the Netherlands where they have introduced price competition for a limited number of services gradually over a number of years (following a period of fixed prices) has resulted in price reductions for these services (compared with the fixed price services) (Office of Health Economics 2012). The key in the Netherlands is that there are a few powerful insurers who negotiate prices with providers. The structure of the market in England, with multiple small commissioning groups, suggests they will not have sufficient cost information (and the transaction costs are likely to be high) to negotiate prices for defined services locally. A national tariff serves to minimise transaction costs and hence may be efficient in light of this. In addition, it can act as a brake on monopoly power in those parts of the country where there is little inter-hospital competition.

Promoting quality

The architects of the market, of which PbR was an important component, did not see the need for incentives to drive quality, as they assumed competition under fixed prices would do this. They expected the pressure to improve quality to come not from how care was paid for by commissioners but from patient and commissioner choice of provider. Evidence on how choice at the point of referral has operated suggests that it remains a weak driver of quality improvement (Dixon *et al* 2010). There is a *prima facie* case therefore for introducing financial incentives to improve quality.

As noted in Section 2, the current tariff for acute care has been modified to create stronger incentives to improve quality (for example, best practice tariffs) and a pay-for-performance element has been introduced to contracts for all providers (eg, Commissioning for Quality and innovation (CQUIN)). The increasing availability of quality information from clinical audits and routine measurement of patient reported outcomes means there is potential to extend the scope of incentive payments based on quality.

Best practice and CQUIN payments are currently focused on a narrow range of conditions; any increase in the value of the reward without broadening its scope would be hard to justify in cost-effectiveness terms since the opportunity costs would increase. Currently there is only limited evidence on the scale of the impact of these schemes.

The absence of good evidence of their impact suggests that quality payments through best practice and CQUIN should continue to be used selectively in areas where poor performance has been clearly identified or where the scope for substantial service improvements has been identified, and where measures are available. Once improvements have been made, however, the payments should be withdrawn (though measurement may need to continue).

Over time quality-based payments should be embedded in the contracting process at local level and linked to locally perceived areas of poor performance. A focus on commissioning for outcomes, and contracts for services (rather than with organisations), would necessitate a greater focus on quality markers and should enable a proportion of the payment for all services in future to be tied to the delivery of improved quality.

Evidence from the Quality and Outcomes Framework (QOF) suggests that instead of paying for absolute levels of performance, where there is a risk that payments are made for reporting existing activities, additional incentives should be targeted at *improvements* in performance. However, nationally required elements apart, current CQUIN payments are locally negotiated between commissioner and provider and there is no benchmarking to national standards or to a group of similar providers. The 'Advancing Quality' scheme introduced in the North West (AQUA 2012) based on a quality scheme adopted in parts of the United States, uses comparative benchmarks of performance between providers and distributes the rewards according to providers' relative level of performance (eg, upper/lower quartiles).

As this illustrates, there is more than one way of structuring pay-for-performance incentives and more information is needed about the relative impact of different schemes in different circumstances. As the evidence presented in Section 3 shows, experience elsewhere suggests that such schemes – whether part of the tariff or forming part of contracts – should be introduced cautiously and their impact evaluated before being widely adopted.

However, the key question is how financial incentives fit in with the large number of quality-related initiatives already in place (Dixon *et al* 2012a). At a minimum, financial

incentives should not impede efforts to improve quality. On the evidence currently available it is hard to establish how far they should be used, in preference to other instruments, to actively drive quality.

Supporting innovation and diffusion

The government has argued in a recent paper (Department of Health 2011b) that there is massive scope for introducing new ways of delivering care. The paper suggests the current tariff may hinder rather than promote innovation and that the NHS Commissioning Board will be in a position to influence the rate of innovation ‘by applying the right incentives to encourage the systematic development of innovative behaviours and activity and by directing investment to help spread new ideas’ (p 20).

The paper argues that current incentives reinforce the status quo and that the current budgetary frameworks can pose obstacles to innovation (for example, where costs and savings fall on different budgets). It therefore proposes that financial, operational and performance incentives should be aligned to support the adoption and spread of innovation by:

- developing a shared savings formula to break down budgetary barriers and encourage cross-boundary working
- developing a tariff for assistive technologies such as telehealth and telecare
- continuing tariff development especially in relation to payment for outcomes
- commissioning the NHS Improvement Body to help the local NHS make the best use of existing tariff flexibilities including best practice tariffs at local level
- exploring options for an unbundled tariff for diagnostics
- extending the ‘never events’ regime with the assistance of the National Institute for Health and Clinical Excellence (NICE).

The existing tariff provides scope for unbundling diagnostics and extension of the ‘never events’ list, where justified by evidence, can easily be accommodated within the existing tariff. Furthermore, the existing tariff structure creates a positive incentive to introduce new treatments or ways of working where they will bring down the cost, particularly in those providers with costs above tariff levels. In addition competition for patients may encourage all providers to innovate (Cooperation and Competition Panel 2012).

Relating payment to final outcomes means overcoming measurement difficulties, but if these were solved the existing tariff structure could also accommodate payments of this kind.

The need to break down budgetary barriers is a general one. Recent developments such as whole pathway and year of life tariffs, if they prove effective in practice, can provide the budgetary framework for innovations that require extra expenditure within the hospital but deliver savings in the community, and vice versa. Other arguments for tariffs of this kind are considered below.

The use of financial incentives to support the introduction or spread of specific innovations raises the question of how such innovations would be selected, whether centrally or locally, and how the case for financial support would be made.

At the stage when an innovation is being introduced, there will not be reliable information on its costs and benefits and there will be a risk that the innovation will fail or prove too expensive in relation to possible benefits. Instead of setting a tariff, it may

be better to use existing flexibilities that allow localities to suspend the tariff for a defined period, so the innovative service can be funded (or funded from other sources). It should then be evaluated and used to inform the development of future tariffs.

Before being offered support through the tariff, innovations would need to demonstrate their positive impact on objectives such as reducing cost, improving quality or increasing integration. They should only be rewarded and adopted if they are able to do this. However it is clear from the results of the evaluation of telehealth carried out by the Nuffield Trust (Steventon and Bardsley 2012) that measuring impact in terms of outcomes (mortality) and costs is far from easy and may lead, as in this case, to ambiguous or hard-to-interpret results. But without reliable evidence of this kind an evidence-based tariff could not be set.

If an innovation had been demonstrated to be effective in terms of cost, outcome or any other objective, then a tariff might be set on best practice lines. But such tariffs should be time limited, not least because they could easily become out of date in areas where innovation is potentially rapid. The more general point however, as *Innovation, Health and Wealth* (Department of Health 2011b) recognises, is that if innovation across the board is to be more rapid than it has been in the past, it needs to be 'hard wired' into training and education for managers and clinicians. It is not obvious how setting incentives centrally or locally, for what must inevitably be a limited number of innovations, will help to promote the broader cultural change that the Department Of Health is aiming for.

Shifting the location of care

Where the costs of providing care or a particular activity are lower outside the hospital setting, then an activity-based tariff incentivises commissioners to buy the service elsewhere, provided that the tariff varies according to the costs in different locations. Currently PbR has a very small number of tariffs of this kind.

PbR as it stands is not well designed to promote or support larger scale shifts in care from hospital to other settings. As The King's Fund has argued (Ham *et al* 2011), a systematic response to the growing burden of chronic disease, the needs of those with multi-morbidity, and the frail elderly requires a shift away from the hospital to other settings and closer integration of care. There is also a need for more active health promotion and primary prevention for chronic diseases.

As far as the purchaser is concerned, PbR deals with this simply and directly through a reduction in their outlays. From the provider's viewpoint however it is not effective as it makes no allowance for the difficulty of reducing costs in line with falling activity. This issue can have a particular impact on trusts with inflexibilities in their cost structure (for example private finance initiative commitments), but all hospital providers have some fixed capital costs as well as general overheads that are hard to reduce quickly. Capital costs could be taken out of PbR and financed in other ways, as in other countries. But in addition there needs to be some form of transition payment during the period during which semi-fixed costs are reduced.

For patients with chronic conditions a single hospital episode such as an emergency admission may form just one part of a regular treatment cycle. Where the need for the episode is in part determined by the effectiveness of service provision in primary and community care, hospital treatment may not be required. Although recent modifications to PbR have reduced the incentive to increase emergency admissions they do not provide an incentive to reduce the underlying demand for this category of admission. In these

circumstances, there is a case for bundling the various elements into one payment for the whole episode and making that, rather than each individual episode the patient requires, the unit of payment.

Bundling all the services required for an extended episode of care and handing over the appropriate payment to a contractor (which might be a new organisation or part of an existing one) provides scope to identify the best way of providing the service and discourage cost shifting from one provider to another. It also allows the best location of care – hospital, community, home – to be used. The contract might be set in such a way that if costs are reduced without loss of quality the provider shares the benefit, or if costs are maintained but quality raised the provider is rewarded for the higher standard of service. However, as we emphasised in the previous section, there are limits to how far bundling payments around single diseases and conditions will provide the incentives needed to promote high-quality integrated care.

Promoting integration

The Health and Social Care Act 2012 firmly establishes integration as a key aim of health policy in general and tariff-setting in particular. But PbR is not well suited to promoting continuity and co-ordination of care (Ham *et al* 2011). In its current form it does not provide payment relating to the costs of co-ordination itself and it does not provide a financial framework that supports or directly incentivises new ways of delivering care for people with long-term conditions.

Service integration requires a form of payment that is less directly linked to existing organisational structures and which allows financial resources to be allocated to whichever provider is best suited to deliver each element of a care pathway or of an extended episode of care.

Schemes developed in other countries have generally focused on single conditions, but these raise the question of whether people with co-morbidities gain from such arrangements. There is a risk that people with multi-morbidity are not treated holistically and no single organisation takes responsibility for the totality of their care needs. So while incentives may integrate along care pathways they create a different form of fragmentation for the patient. While it is sensible that new forms of payment should be tried out for particular conditions, there needs to be a long-term strategy that sets out how payments will be developed that promote integrated care for people with complex needs.

An alternative approach is to develop risk-adjusted partial or global capitation payments that cover the costs of care needs of an individual associated with their (multiple) chronic conditions. By removing the link between payment and specific activities to specific providers, they create a resource package within which new ways of delivering services, new technologies and new providers can be used. Capitated budgets also create incentives to prevent illness and remove the barriers between providers and services that often get in the way of delivering high-quality integrated care.

As noted above, work is under way to devise bundled tariffs in some parts of the NHS. However, despite their central role in the management of long-term conditions and the related incentives in the QOF, these developments do not include payments to GPs. In the long term, there is a clear case for unifying payment systems in this area. Different incentive-based payment approaches are currently used for hospital services (PbR), primary care (QOF) and community services (block contracts) and emphasise different objectives.

The sharp divide between primary and secondary care that characterises British medicine is inappropriate for a future in which chronic conditions will account for the majority of health care need. This requires a much more integrated response across the whole of the health, as well as the social care, sectors. As we have argued, this is likely to require the development of new forms of organisation and new forms of contract, which run across existing financial and organisational boundaries.

Examples might include multi-specialty medical groups operating on the scale and with the expertise needed to take on risk-adjusted capitated budgets and contracts; integrated health and social care providers working under a contract that gives them flexibility to use a pooled budget to deliver the right care in the right place at the right time; and the use of lead providers who would be given responsibility for delivering care to a particular group of patients and users (such as frail older people) and would then subcontract to other providers to deliver those services it cannot provide directly.

In the concluding section we draw out some general lessons about the use and further development of PbR.

5 Key lessons, future strategy and conclusions

In this section we reflect on the lessons to be learned from the experience of Payment by Results (PbR), and international experience of similar payment systems and draw out some general lessons about its use and further development. We conclude with an ambitious strategy for the NHS Commissioning Board and Monitor as they grapple with their new roles with respect to payment systems and PbR in particular.

It is difficult to come to a conclusive view on what the effects of PbR have been. The force of the argument that it was essential to introduce this type of payment system to underpin patient choice is limited: patient choice was available and exercised before PbR was introduced, but payments were related only to imbalances between areas and based on broad average unit costs for acute care as a whole.

As for PbR leading to additional activity to reduce waiting times – perhaps its key aim – the evidence of the one national evaluation is not conclusive (Farrar *et al* 2010). It is arguable that the extra activity needed to reduce waiting times would have resulted anyway from the combination of the extra finance that became available after 2000 and the centrally managed targets that were set then and subsequently.

It is also arguable that PbR was essential to ensuring that the market in health care service that the government was aiming to establish was put on a correct footing – that is, no hidden subsidies. But the evidence is that while progress has been made in making subsidies more explicit, these have not yet been removed, and in addition the incentive effects of PbR have been blunted by subsidies from other sources. Furthermore, the results of the PriceWaterhouseCoopers 2012 study suggest that it does not adequately allow for the demand and cost side differences between providers. To the extent it does not, competition will not be on a level playing field.

Demand for care will continue to rise, as will demand for different forms and types of care. New types of care and intervention will be devised that will redefine the boundaries of health care and what is clinically possible. But old problems, such as variations in the quality of care and the efficiency with which care is given, will persist.

PbR (and the way tariffs have been set) have been relatively successful in achieving some of the objectives for the NHS set out in Section 4. In other areas, for example promoting more integrated services, minor ‘tinkering’ with PbR will not produce the changes that are increasingly being recognised as necessary. Worse, perhaps, the current payment system may actively be obstructing change. Radical changes in the blend of payment methods used in the NHS in England are therefore essential.

From the preceding review of the current way in which PbR operates and the international evidence there are five key lessons about the role of payment systems in general and PbR in particular.

Five key lessons

Payment systems cannot do everything

Many of the key objectives of the payment systems, such as lowering costs, improving quality, and driving appropriate service change, are goals shared with other policy initiatives. The Quality, Innovation, Productivity and Prevention (QIPP) challenge and the resulting targets for cost improvement programmes, for example, have led to a wide range of measures to improve operational efficiency in response to the evident need for the NHS to survive with tight budget limits, and the United Kingdom's need to demonstrate effective control of its public finances.

There is a vast array of measures in place at national and local level designed to improve the quality of care across the NHS; some at national level such as the Care Quality Commission, some at provider level such as systems of clinical governance, and some directed at individual clinicians such as licensing and revalidation. As noted above, if these are effective, then the role of financial incentives such as best practice tariffs or Commissioning for Quality and Innovation (CQUIN) should, in time, be limited to specific circumstances, for example, where a nationally important issue is defined. The role of the payment system in this context may be to avoid imposing financial pressures or constraints which make it hard for providers to maintain quality.

What should be the role of payment systems when other policies are in place to meet any or all of the objectives above? Should they be the prime stimulants to improvement in both quality and efficiency? Or should their role be the more modest one of not impeding change? Unless this is clear, the future role of payment systems in the NHS cannot be determined.

In general the approach to payment needs to be aligned to the wider approach to commissioning and contracting. We have argued elsewhere (Hawkins 2011) that the approach to commissioning needs to change if the objectives of more integrated care are to be met. These changes, together with different forms of tariff that are less closely linked to specific activities or providers, would offer greater scope for service redesign and innovation.

One size does not fit all

The current system of PbR was introduced as part of a series of policies and initiatives to tackle waiting times for elective surgery. The key objectives at the time were to get hospitals to do more activity, more efficiently. As we have described above, the scope of PbR has been extended well beyond elective care to other services where the objectives are likely to be very different. It may be time to rein back the scope of activity-based funding and limit it to those areas where the objectives of increased activity and improved technical efficiency of a standardised service are paramount.

For example, new forms of tariff need to be designed for financing and contracting for national or regional services where the critical requirement is the maintenance of capacity in specific locations and where competition is impractical on a day-to-day basis. Trauma centres or intensive care units do not operate within a competitive market and because of their specialised nature, the scale of provision is not easy to vary quickly. For these services the primary need is for payment and contracting systems that ensure that the appropriate level of capacity is in place in each part of the country. That requires a form of block payment for a defined level of capacity, with, possibly, a small part of the payment linked to the actual level of activity in each centre or unit: a system of this kind was in use for accident and emergency services up to 2009/10. Alternatively an agreement might be

reached between provider and commissioner as to how the risk of demand exceeding or falling short of a specified level might be shared.

There is a need to consider the appropriateness of using any activity-based payment for emergency care. Unlike planned or elective care, for example, there is no general reason for promoting higher levels of unplanned or emergency care. Rather it can be seen as a necessary but unwelcome form of activity that should be avoided if possible. The PbR tariff has been modified to reduce the incentive to admit while ensuring some level of payment is made for dealing with additional emergency admissions. However the tariff does not create a financial incentive to avoid admissions in the first place.

The policy commitment to introduce any willing provider in areas such as community services was to be underpinned by a standardised tariff similar to the current approach used for hospital services. However, it is not clear the policy objectives for all types of community services would make this the most appropriate way of paying for care. Community services are potentially able to prevent unplanned admissions by responding to patients whose conditions are deteriorating at home, and putting in place support and outreach services. Here more global payments such as risk-adjusted capitation or year of care may be appropriate as they mean providers bear risk for failing to prevent an avoidable unplanned admission. For those elements of community services that are involved in rehabilitation and intermediate care, it would make sense to include them in a package together with the more acute elements for elective admissions.

These examples suggest that the definition of the product and the specification of the service by the NHS Commissioning Board will be more critical than the price set by Monitor.

Payment systems need to be flexible

Any system will have to be adjusted in the light of experience of its impact, changing objectives and changes in the context in which it operates. Policy at national level does not anticipate or rapidly respond to all the developments in service provision or to every local context. There is therefore a need to maintain flexibility to allow local commissioners and providers to reach agreements for example, to vary national payments or the definition of the 'product' being paid for. However, it is important that such variations are not just transparently recorded and justified, but are also evaluated and monitored so they can inform the development and refinement of national payment and pricing policies.

An important aspect of PbR where flexibility and deviation from the national norm may be increasingly needed concerns the tariff. It could be argued that a national tariff gives commissioners some assurance that the prices they pay are reasonable. However, they could still be assured on that count if the national tariff was advisory rather than compulsory. Either way, fundamental improvements in the accuracy of published provider healthcare resource group (HRG) costs is a necessary condition. The range of flexibilities available to local purchasers (*see* Table 5 in Section 2, p 13) is itself a recognition that a fixed national tariff does not always fit well with all local circumstances. If the national tariff were not compulsory, however, there would still remain a need for prices to be published and for each commissioner to set the same price for all providers, in order to ensure competition is fair.

The government has argued that allowing local price flexibility would lead to price cutting and risk reductions in quality (and there is some evidence from empirical studies to support this view (Propper *et al* 2011)). However, the current approach whereby an across the board price reduction is imposed on providers regardless of their financial position can pose a similar threat. The assumption that (with some exceptions) hospitals all have the same cost structure remains largely unproven. Such an assumption is likely to be

even harder to justify for out-of-hospital services given the impact of geography, patient characteristics and transport systems on the costs of providing in different locations. The Audit Commission (2011) noted the 'wide variance in unit costs' in these services and suggested that a single tariff may not be suitable for some services. And indeed, if the risk to quality arises because quality is hard to measure ('unobservable' in the economics jargon) then this remains a problem whether prices are fixed or negotiated.

Trade-offs between objectives is inevitable

There is likely to be conflict between the objectives that payment systems promote. The starkest potential conflicts are between cost and quality and cost and maintenance of supply. There is a risk of widespread failure if tariff levels are pushed down to a level where even an efficient provider cannot maintain high-quality services.

For example, there is a risk that with the Care Quality Commission (CQC) and the National Institute for Health and Clinical Excellence (NICE) setting quality standards (in the absence of any budget constraint), but with commissioners facing a budget constraint and wanting to maintain local access to services and with Monitor setting tariff prices, there is a danger of conflict and sub-optimum performance. If Monitor pushes price too low, for example, providers may not be able to afford to deliver the quality of care set by the CQC and this could result in limiting access. On the other hand, if Monitor sets prices too high commissioners will not be able to afford to pay for care and there will be a risk of overspending and/or (again) limiting access.

While these are difficult issues to resolve, it makes sense to limit the range and number of objectives set for PbR, for the impact of particular pricing strategies to be modelled in advance, and for ongoing monitoring in practice.

Data for, and research into, payment systems needs to be strengthened

The need to monitor the effects of payment systems is absolutely vital as our understanding of their impact remains limited. Further developments in payment approaches will need to be supported by high-quality data and analysis. Any system that is not underpinned by reliable data and analysis will fail to command compliance, and risks leading to unintended and unwanted side effects.

The need for high-quality cost data to underpin any payment/pricing system would seem obvious. Yet, as has most recently been noted by the PriceWaterhouseCoopers review for Monitor, there are serious doubts as to the accuracy of the National Reference Costs data set used as a basis for setting tariffs. While it might be supposed that providers have an incentive to generate accurate cost data under PbR, it appears that such an incentive is not always effective.

Data quality improvements are not only needed to provide the basis for national tariff or local price setting. They are also needed to provide a sound basis for contracting between commissioners and providers and between different provider organisations if prices are determined through negotiation or tender.

One route to improving reference cost data (the data used to calculate unit cost) returns is the use of bottom-up patient costs (Department of Health 2011c). In 2010/11, 48 per cent of acute trusts, for example, had implemented a patient-level information and costing system (PLICS) with a further 26 per cent in the process of introducing such a system and 13 per cent planning to do so. Many trusts with PLICS have used the data they have generated to underpin their national reference costs returns; the presumption is that the accuracy of the reference costs has improved. However, other options for improving the

quality of costing data for tariff-setting purposes include a sampling approach, drawing on a subset of providers whose cost data has been quality assured to provide reference or benchmark costs to underpin PbR.

More generally, there is an ongoing need for evaluation of different incentive schemes (for example, we await the results of evaluations of Advancing Quality and CQUIN initiatives) and for further research on bundled payments and year of life tariffs. Such evaluation should not just investigate the effectiveness of such schemes but crucially their cost-effectiveness (something that was not required of the national evaluation of PbR (Farrar *et al* 2010)).

A strategy for the future

It is important that the NHS Commissioning Board and Monitor together develop a payment strategy that:

- is clear about what (limited) objectives PbR should serve
- is clear about the role and cost-effectiveness of Payment by Results
- recognises the heterogeneity of health care services and sets out a framework that will guide the design and specification of currencies for different types of services
- sets out the scope for local decisions/variation and the basis on which such flexibilities will be allowed
- recognises explicitly how trade-offs between objectives will be handled
- sets out plans for ensuring the availability of robust cost data
- sets out the expectations about the pace and process for developing and evaluating new payment systems.

This is an ambitious agenda and making it happen requires action at all levels of the system. As our international review shows, there isn't an off-the-shelf solution that the NHS can easily import. So who should lead the development of these new payment systems? What is the role of national bodies versus local commissioners and providers?

Below we set out three options for the development of payment methods by the NHS Commissioning Board and Monitor.

Incremental adjustments

A key driving force behind the development and expansion of PbR has been a belief that this approach to reimbursing providers is – with relatively minor adjustments and flexibilities – the best way to not only ensure that the right resources are in the right place to meet demands for care, but that it contains the right incentives to meet the key objectives of improving efficiency and quality. Considerable work has been expended on developing the HRG currency that underpins PbR, on ways of applying PbR to areas such as mental health and community services and on amending the national rules (for example, on bundling and unbundling).

One option in the medium term is to continue this process of expansion (for example to community services) and further refinement and development of 'add ons' (eg, best practice tariffs). In essence this process would involve solving problems and tackling issues as they arise and continuing to work towards the goal of applying PbR to as many services as possible.

For reasons set out above, our view is that incremental adjustments will be insufficient to address the limitations of PbR or meet the need for other payment methods to support objectives such as giving more priority to: prevention, the care of people with long-term conditions, and the need to support the delivery of high-quality integrated care. Much more radical thinking and action is needed on the incentives that should be put in place to implement these objectives. Innovations in the development of bundled and year of care payments are welcome but have been painfully slow to emerge and the major financial and service challenges facing health and social care demand a more urgent and systematic response. As we have argued, this should include the development of capitated budgets focused on older people with complex needs and others for whom refinements of a system still built on PbR will not be sufficient.

Grand designs

A second option would be for the NHS Commissioning Board and Monitor to develop a much wider range of payment methods with the aim of creating a coherent and mandatory national framework to support the implementation of a variety of policy objectives. This framework would include PbR, and further refinements to it, for those services for which it is most appropriate. In addition, priority would be given to the development of payment systems to support prevention, improved care for people with long-term conditions, and integrated care.

As we have argued, the original objectives for which PbR was designed no longer hold and its extension beyond elective care has failed to recognise the different characteristics (and objectives) associated with other types of care. There are new objectives for how care should be provided (eg, in a more integrated way) and where it should be provided (eg, based on Lord Darzi's reorganisation principle to 'localise where possible, centralise where necessary'). While there are refinements that can be made technically to the existing PbR such as improving cost data in the short term, there is a need for a radical rethink to meet the new challenges and objectives.

The main arguments in favour of a national approach to defining currencies and setting prices is the need to ensure a level playing field, to encourage new entrants and to reduce transaction costs. In addition, it could be argued that the scale of the task is beyond the capabilities of clinical commissioning groups.

The analysis and technical work needed to underpin the specification of new currencies would be a significant work programme. For example, defining a series of tariffs for different packages of care for frail older people or people with multiple chronic conditions would require cost data from across primary, community, health and social care. The calculation of direct payments and personal budgets in health care has to date been based on the costs of usual care or estimating the costs of the package of care as defined in the care plan. Developments in person-based resource allocation would provide a basis for a costing approach that could be used for calculating risk-adjusted partial or full capitations for specific patients.

It has already been recognised that Monitor will need to expand the size and capabilities of its staff if it is to undertake a more sophisticated approach to pricing. However it is not clear where it is going to recruit these people. Given that the NHS Commissioning Board is only just getting established and Monitor is taking on many new functions, it is important that the expectations of what these bodies can deliver is realistic. Furthermore, it is unlikely that these national bodies can predict every eventuality and consider the needs of every different locality. We are therefore sceptical, at least initially, as to how far and how fast these national bodies can lead the innovation in payments that are needed.

Supported local experimentation

A third option would be to establish a national framework which allows, indeed encourages, greater flexibility and opportunity for local organisations to experiment with different forms of payment approaches, alternative pricing/payment strategies and different ways of specifying the care and services to be delivered. In order to prevent abuses and to ensure that the learning from such experiments was used to inform the development and refinement of national guidance, we propose that such flexibilities would need to be requested from, and agreed by, Monitor and the Commissioning Board (akin to waivers in the US Medicare system). As part of the deal, local commissioners would be expected to evaluate and report on the impact of their approach. If the changes were positively evaluated then it would be expected that these approaches would then be encouraged for widespread adoption.

The freedom to innovate relies on local organisations having an understanding of what is possible, the capacity to develop new payment and contracting approaches and the resources to evaluate them. Part of the role for national organisations such as Monitor and the NHS Commissioning Board would be to support local organisations in developing alternative payment approaches and to ensure rules governing payment transparency were adhered to. They could, for example, publish benchmark (rather than mandatory) tariff prices, approve and monitor deviations from benchmark tariffs, support evaluation of novel schemes and spread best practice.

We think that this third option balances the need for local flexibility with the desire that over time new payment approaches that have been evaluated become established as the norm nationally.

Conclusion

Overall, our assessment is that PbR in its present form is not ‘fit for purpose’ if the NHS is to meet the challenges it faces. It is broadly suited to those services such as elective care where a choice of provider is available and where the services concerned are relatively easy to define. It also provides incentives for improvements in technical efficiency within acute providers. Some of the more recent modifications to tariffs have introduced incentives to support a shift in care to the community, and for a small number of procedures it has a limited role in promoting quality. But it should not be considered either universally applicable or, in relation to the tactics adopted for tariff-setting (ie, setting below inflation increases to incentivise cost reductions), sustainable. There are limits to how low the price can be driven without adverse impacts on quality or without jeopardising the financial sustainability of providers.

We would argue that the current system is not always well suited to the promotion of other objectives, particularly integration and major shifts and changes in the location of care. It provides almost no incentives for health promotion and disease prevention, and in its current form does little to support improvements in the efficient allocation of funds or innovation.

For some types of services we believe a more radical rethink is needed. This should involve developing more comprehensive or global capitation payments that shift more risk to providers but also enable greater flexibility for new relationships between providers. It might also require new approaches that reduce the link between activity and payment, by paying for a given level of capacity, with the risks of over- and under-use shared between providers and commissioners. Our review of the international experience suggests there is no blueprint for moving in this direction. What is clear is that activity-based funding has limits and that all countries are seeking to modify the basis on which

they pay for services. There is a clear need for Monitor and the NHS Commissioning Board to set out a payment strategy that makes the objectives (and limits) of payment systems clear. We propose they adopt an approach that maximises local flexibility but ensures greater transparency in pricing and the development over time of a more comprehensive set of national currencies and prices that better meet the needs of the health care system.

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