PricewaterhouseCoopers' Health Research Institute

You Get What You Pay For*

A Global Look at Balancing Demand, Quality, and Efficiency in Healthcare Payment Reform

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Executive Summary

Controlling healthcare spending is what all governments and payers seek. How to control it depends on how they pay for care through aligned incentives. Unfortunately, incentives are not aligned, which affects the quality and quantity of the care provided. Almost two-thirds of global health leaders surveyed for this report thought the *performance* of their country's health system was good or very good. However, less than 40 percent gave the *payment* system a grade of good or better. This is analogous to owning a high-performing vehicle that costs too much to operate. How sustainable can that be?

High-performing health systems require high-performing payment systems. Payers and patients want quality care at an efficient price, while providers want incentives to provide this care. "I've had some discussions—debates indeed—in the British Medical Association," said Angela Coulter, chief executive of Picker Institute in the UK. "When you ask them why GPs [general practitioners] are unwilling to do a particular thing for their patients, their response is that they're not paid to do it. I'm concerned that the financial incentives undermine professionalism." That sentiment was echoed elsewhere.

Joop Hendriks, chairman of the board of Bronovo Hospital in the Netherlands, echoed Coulter's sentiments by saying, "If the government pays for Christmas trees, hospitals will produce Christmas trees."

Paying for treatment and services requires constant and timely refinement, both of which have been lacking. However, with better technology, the information needed to improve payment is increasing in frequency and timeliness. As payers digest this volume of information, it's necessary to balance, changes through a payment triad of efficiency, demand, and quality. Focusing too much on any one of these issues can unbalance the triad and change the direction of the health system toward financial unsustainability.

What gets paid for gets accomplished, and countries have multiple objectives for their healthcare payment systems. Beyond increasing efficiency, increasing quality, and controlling demand, health systems are also trying to develop incentives that improve health and enhance care coordination. Health leaders around the world see the health payment system as one of the best tools to achieve these objectives.

The value of payment incentives was highlighted in a PricewaterhouseCoopers Health Research Institute research report entitled **HealthCast 2020: Creating a Sustainable Future**—in which we identified alignment of payment incentives as one of the key features of a sustainable health system. In this report, we take that one step further with an in-depth discussion on how to structure payment incentives.

Key Findings

- Almost two-thirds of 200 health executives surveyed in 20 countries said their *health systems* were performing well. However, less than 40 percent said their *payment systems* were performing well.
- Caring for an increasingly aging population was rated the most difficult challenge facing health systems, according to the executives surveyed.
- Payment systems are not structured to support future delivery models.
- Cost control was ranked as the most important factor in the development of payment systems in the future. It ranked more important than quality, efficiency, or demand in the survey.
- Cost control has already influenced a shift to hospital payment systems that encourage efficiency. Case-based prospective payment has been adopted by more than 20 countries, or 70 percent of member countries of the Organisation for Economic Cooperation and Development (OECD). Even so, nearly two-thirds of those surveyed said they thought their payment methods would continue to change in the future.
- Case-based reimbursement has proved to be the emerging standard for hospital payment, but payment methods for primary care physicians and general practitioners (GPs) are much more variable.
- Most countries have few if any financial incentives in the public hospital system for rewarding quality. However, some promising experiments are going on to embed quality and efficiency incentives in payment. The most promising is the English pay-for-performance system for GPs.
- Traditional gatekeeping systems, such as general practitioners and co-payments, are breaking down. In the survey, "better-informed patients" ranked highest as a way to better manage demand. "Increasing out-of-pocket payments" ranked lowest.
- Quality data is emerging in many countries, but patients and gatekeepers often do not act on that data, and payers are reluctant to base reimbursement on quality alone. Data is increasingly available in England, Germany, and Spain—particularly regarding efficiency of activity, control of demand, and technical quality and outcomes. Patient choice is still driven largely by perceived quality rather than quantified medical or technical data.
- Health executives want financial incentives to encourage more care coordination. In our survey, 84 percent of respondents said care coordination would do the most to improve quality in their countries. Bonuses for care coordination that are paid to physicians and hospitals were among the top five methods needed to improve cost, quality, and efficiency.

Transferable Lessons

As the pressure to control health spending increases, payers and governments face the difficult challenge of balancing quality, efficiency, and demand through payment reform. Following are transferable-lesson guidelines for maintaining that balance.

- As more care gets delivered in outpatient settings, capital planning and financing must follow with payment methods that encourage flexibility and innovation. Austria, England, Finland, France, Italy, and Sweden include capital costs in their diagnosis-related-group (DRG) systems, and the Netherlands plans to follow in 2009.[1]
- Models that integrate both hospital payment and physician payment create mutually aligned incentives. For example, the Netherlands started aligning incentives between hospitals and physicians in 2008 by introducing 100 percent DRG-based payment for physicians, where self-employed physicians are required to negotiate their fees, within a range determined by the government, with the hospitals that receive the DRG payment.[2] However, because hospital revenues rely on DRG-based payments for only 20 percent of the DRGs, full incentive alignment is still far away.
- In countries whose payers are multiplying, there's more potential for confusion around quality improvement and incentives. The English pay-for-performance model illustrates how a single set of metrics can drive improvements in care.
- Patients are paying more money out of pocket for care, and they're shopping for care at nontraditional venues and locations. Countries need to prepare to develop rational pricing for competing in the global market for healthcare services.
- As more data from claims, diagnostic test results, patient surveys, and electronic medical records becomes available, providers and payers need to use those results to evaluate their reimbursement system.

About the Research

To provide research-based insight, PricewaterhouseCoopers' Health Research Institute (HRI) conducted more than 30 in-depth interviews with thought leaders and executives representing hospitals, government organisations, and the business community in over 10 countries. In addition, a thorough literature review of reports and guidance from associations, regulators, and academia was conducted to gather insights on current challenges and best practices. Publicly available data related to healthcare reimbursement approaches was also analysed.

HRI commissioned a global survey of more than 200 healthcare executives from 20 countries and regions: Australia, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Italy, Malaysia, the Netherlands, Norway, Poland, Singapore, Slovenia, Spain, Sweden, Switzerland, the United Kingdom, and the United States.

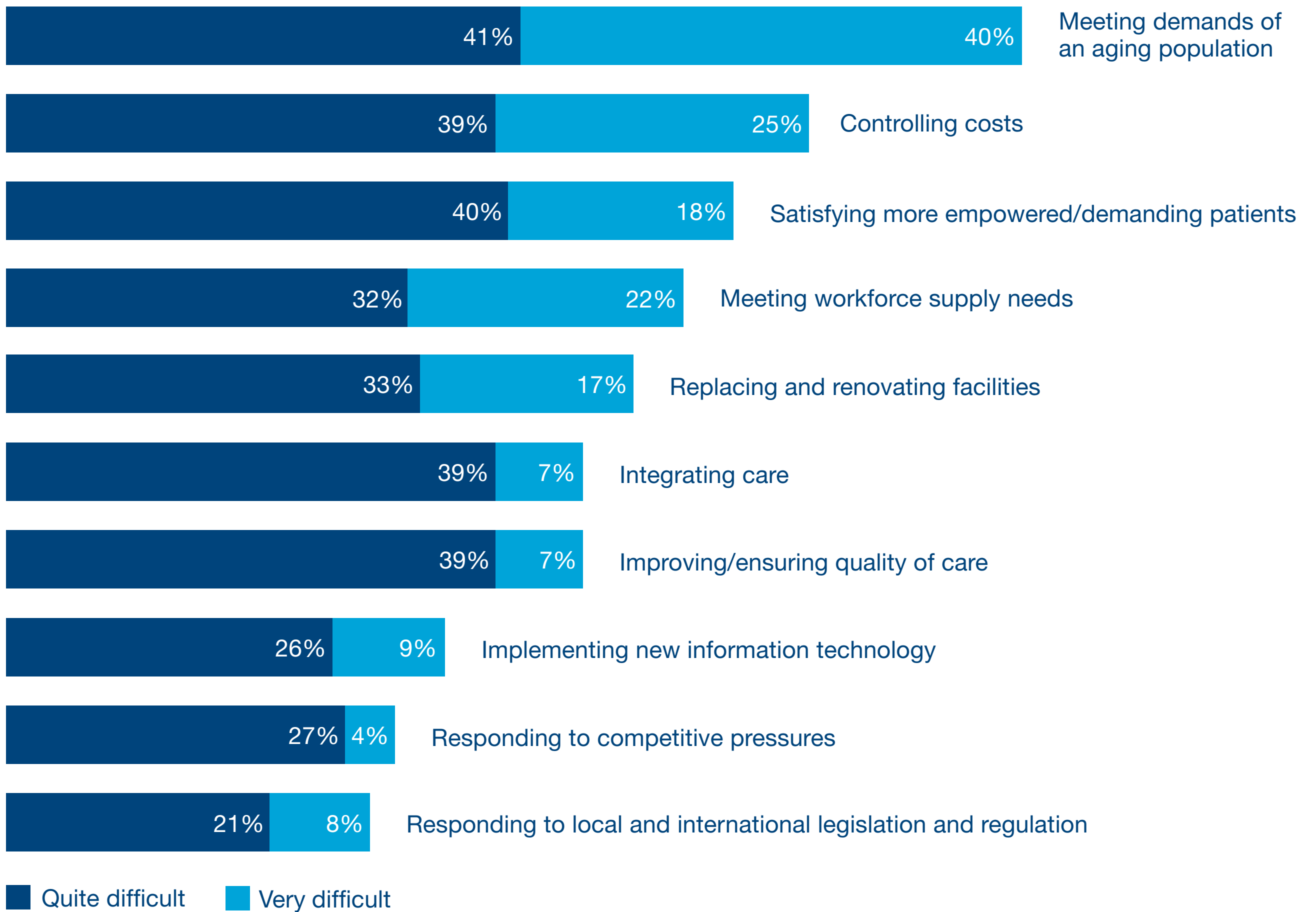
To get the broadest possible input from PwC's network of business advisers, HRI used an innovative tool called the PwC Thought-Wiki, which is similar to the technology that powers Wikipedia, an online encyclopedia. The tool incorporated a new level of collaborative authoring and knowledge sharing in HRI's content development. The Thought-Wiki enabled PwC health industry practitioners to contribute their real-world knowledge to the research, and it was especially helpful in capturing the collective intelligence of our global practice.

Current Landscape

Rising healthcare costs threaten sustainability of health systems.

While payment methods for healthcare services vary greatly around the globe, industry leaders have a common fear: they worry that rising health spending will threaten the amount and quality of care they'll be able to deliver in the future. What's driving that fear is a population that's living longer and using more medical services as it ages. The cost of treating an aging population was identified as the most difficult challenge facing health systems, according to a Health Research Institute survey of 200 health executives in 20 countries. (See Figure 1.)

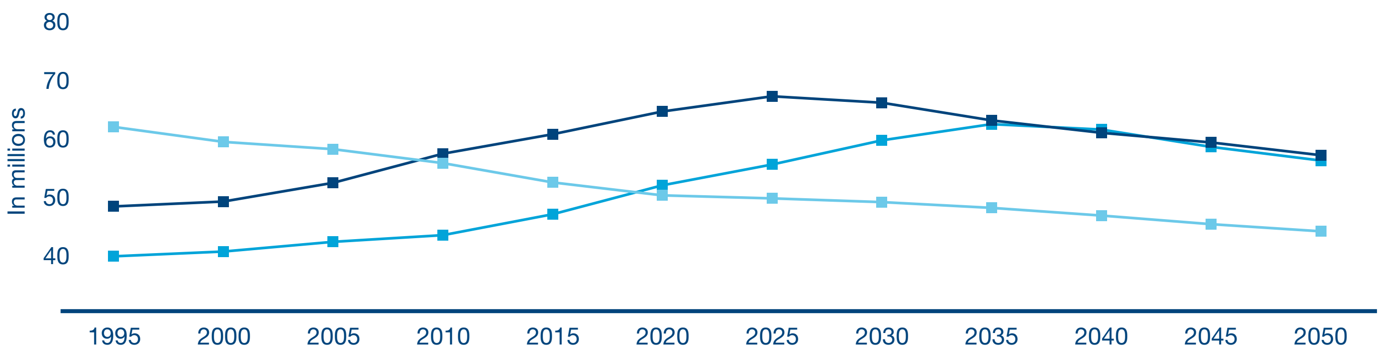
Figure 1: How would you rate the difficulty of the following challenges which may impact on your health care system?



Source: PricewaterhouseCoopers' Health Research Institute Survey

In most of the developed countries, the number of elderly is increasing and the number of young people is decreasing (see Figure 2,) which raises a troubling formula for health spending growth. For example, in the Netherlands and Germany, the average cost of illness rises significantly per capita in higher age categories. (See Figure 3.)

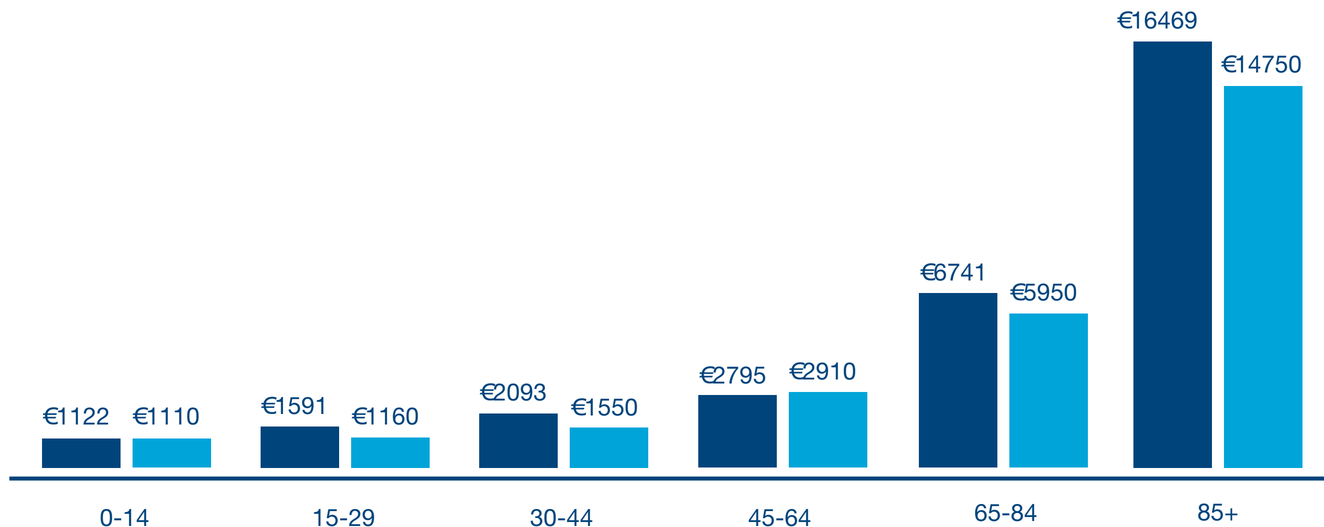
Figure 2: Population trend data for selected age groups within the EU 1995 - 2050



Source: Eurostar[3]

From 15 to 24 years
From 55 to 64 years
From 65 to 74 years

Figure 3: Average annual health spending costs per capita in the Netherlands and Germany (euro)



Sources: RIVM, GBE[4]

Netherlands (2003)
Germany (2004)

Payment systems vary globally but inherent in any system are various incentives.

Globally, there are multiple approaches and attributes to a healthcare payment system: how it's financed, how it involves patients, how it pays hospitals and other institutions, and how it pays physicians and other professionals. Payment systems can vary not only by country but also within each country. Methods include set budgets, salaries, capitation, case-payment (DRG), number of days, fee-for-service, and pay for performance. As Table 1 shows, different payment methods have various advantages, disadvantages, and unique attributes. While payment systems have historically been retrospective—paying for care delivered—they are becoming increasingly prospective so as to allow providers to plan their services and processes around the payments they expect to receive and for payers to better control their budgets and outlays.

Table 1: Key Attributes of Healthcare Payment Systems

	Cost control	Administrative simplicity	Ability to use incentives for:				Specific attributes
			Efficiency	Productivity	Quality	Patient Satisfaction	
Salary (for GPs and physicians)	Yes	Yes	No	No	No	No	Physicians unable to avoid more complex patients
Capitation	Yes	Yes	Yes	No	No	No	Could encourage underutilisation of care
Case payment (DRG)	No	No	Yes	Yes	No	No	May encourage admissions, early discharge
Fee-for-service	No	No	Yes	Yes	No	No	May encourage unnecessary services
Budget	Yes	Yes	No	No	No	No	Dependable source of funding, but incentive is to spend full budget
Pay for performance	No	No	Yes	No	Yes	Yes	Incentives can be misaligned if they become too complex
Day rates, per diems (for hospitals)	No	Yes	No	No	No	No	Encourages admissions and longer lengths of stay
Fees	No	No	Yes	Yes	No	No	May encourage unnecessary capital investment

Sources: Healthcare in Europe 2007 (Van Kemenade), Provider Payment Reforms (World Bank),[5] PricewaterhouseCoopers' Health Research Institute

Aligning payment incentives across all providers so that patients receive efficient care at the right time, at the right location, and from the best resources throughout the continuum is a complicated and ever-changing process. Roger Gurr, director of mental health in Australia, provides one example of misalignment of incentives. “The perverse incentives are evident and do not encourage evidence-based practice. For example, psychiatrists are paid to do clinic-based appointments for all conditions, but that is not necessarily the preferred model of care, and there is no liaison with care partners,” he said. Gurr added that care could be delivered more efficiently and effectively for complex conditions by means of a home-based system.

When physicians are employed by a hospital, the employment relationship implies that the hospital can influence the productivity and clinical practice of its physicians by adjusting their salaries. However, that’s not the case if salaries are set at a national level, as in Ireland. Cormac Maloney, financial controller of St. Vincent’s University Hospital, Elm Park, in Dublin, said payers must then use other, nonfinancial incentives: “Hospitals cannot influence physicians’ pay but can incentivise in terms of working environment to provide the best care to their patients and to facilitate research and education.”

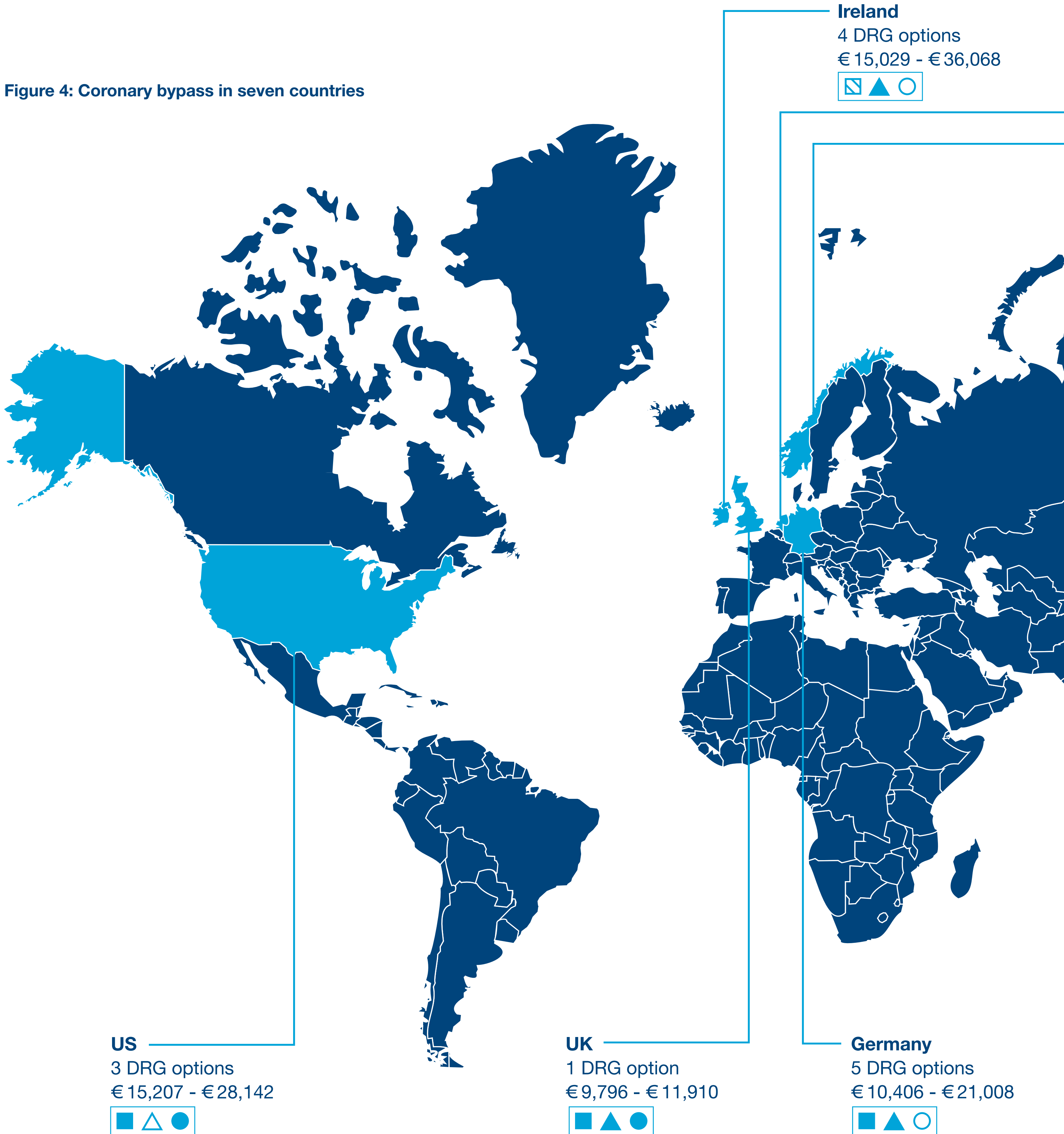
While most hospital reimbursement systems have moved toward case rates, methods for reimbursing GPs vary greatly. Tax funding can influence payment methods. In general, countries with low levels of tax funding such as Belgium, France, Germany, and Switzerland pay their general practitioners by fee-for-service. As the level of tax funding increases, general practitioner reimbursement becomes a mixed system. Those countries with a high level of tax—Canada, England, Finland, Ireland, Italy, Spain, and Sweden—use a mix of capitation, fee-for-service, and/or salary, as well as additional allowances. England, having one of the greatest tax influences in healthcare financing, uses a mix of capitation and the Quality and Outcomes Framework (QOF, see sidebar on this later in the paper). Australia and the Netherlands are exceptions. In Australia the level of tax funding is high, at 67 percent, but GP remuneration is mainly fee-for-service. The Netherlands has a low level of tax funding, at 3 percent, but it uses a mix of capitation and fee-for-service. Table 2 summarises payment by country.

Table 2: Reimbursement for General Practitioners and Physicians by Country

	General Practitioners	Physicians (Inpatient)
Fee-for-service	Tax-based countries: Australia, Canada, Finland, Ireland, Norway, Sweden, UK Insurance-based countries: Austria, Belgium, France, Germany, Netherlands, Switzerland, US	Tax-based countries: Australia, Canada, Finland, Ireland, Italy, Norway, Spain, Sweden, UK Insurance-based countries: Austria, Belgium, France, Germany, Netherlands, Switzerland, US
Capitation	Tax-based countries: Canada, Finland, Ireland, Italy, Norway, Spain, Sweden, UK Insurance-based countries: Austria, Netherlands, US	Tax-based country: Sweden Insurance-based countries: Switzerland, US
Salary	Tax-based countries: Canada, Finland, Norway, Spain, Sweden, UK Insurance-based country: Switzerland	Tax-based countries: Australia, Canada, Finland, Ireland, Italy, Norway, Spain, Sweden, UK Insurance-based countries: Austria, France, Germany, Netherlands, Switzerland, US
Bonuses for quality or efficiency	Tax-based countries: Finland, UK Insurance-based country: US	Insurance-based country: US

Sources: Healthcare in Europe 2007 (Van Kemenade), OECD Health Data 2007, WHO: Health Systems in Transition,[6] PricewaterhouseCoopers' Health Research Institute

Figure 4: Coronary bypass in seven countries



General DRG system features per country:

Share of hospital budget financed by DRG-based activity 0-25 percent, 26-50 percent, 51-75 percent, 76-100 percent

DRG includes physician fee NO / YES

DRG includes capital costs NO / YES

Source: PricewaterhouseCoopers' Health Research Institute

The Geography of Coronary Bypass Payments — Same Procedure, Different Information, Different Payments

These differences make it very difficult to compare costs for procedures across countries. The number of DRG categories ranges widely: in the Netherlands there are more than 30,000; in Australia, over 600. In the US, capital costs are included; in many other territories, capital is allocated separately. In some territories, the payment includes inpatient, outpatient, and physician fees. In others, only the hospital payment is included. Budgetary frameworks are causing the difference, and they limit the incentives of a DRG system. This so-called geography of payment captures the story of how a coronary bypass is reimbursed in seven countries and what information sources are available for patients to select a provider.

Ireland: Case mix is the key

Ireland has been using case mix since the early 1990s, adopting the Australian Refined–Diagnosis Related Group (AR-DRG) model in 2005. Payment for a coronary bypass falls into four DRGs depending on patient complexity, which is determined by the patient's comorbidities and complications during the inpatient stay. The case mix reimbursement for coronary-artery-bypass-graft (CABG) procedures outlined represent the costs for those episodes falling within the DRGs inlier length of stay (LOS) only. If a DRG falls outside its upper or lower LOS boundary points, it becomes a high or low outlier and its case mix units (CMUs) are adjusted to reflect that specific patient's episode of care. The resulting CMUs determine the case mix reimbursement for that particular DRG.

At present, case mix budgets are peer-group-performance related, which means that they're based on a blend rate applied to the difference between the hospital's base price (actual patient cost per case) and the peer group base price (peer group cost per case as determined by case mix). The difference may be positive or negative depending on the hospital's overall performance as measured against its peer group of hospitals. The difference is multiplied by the blend rate and the case mix units generated by the hospital, which in turn determines the size of the budget adjustment. The blend rate in 2006 was set at 40 percent for inpatients and day cases; it was increased to 50 percent in 2007. The rate may increase in the future with further developments in case mix.

Patients depend on the advice of their general practitioner to select a hospital, and they likely consider a facility's location and reputation.

Netherlands: Aim at more market mechanisms

The Netherlands are increasingly introducing market mechanisms into payment, but it's the government that sets the DBC price for a coronary bypass. A coronary bypass procedure can fall into 20 Diagnosis Treatment Combinations, or DBCs (the Dutch coding system), for the first surgery. Those 20 DBCs can be clustered and result in six DBC prices. The DBC is used for invoicing the coronary bypass, but the hospital revenues do not relate to this DBC. Reimbursement for the coronary bypass is incorporated into the hospital's fixed budget.

Patients are free to select their providers. They can access some hospital-specific quality information on an independent national site: www.kiesbeter.nl. That site, online since 2005, publishes such indicators as mortality rate after heart infarct, heart failure mortality rate, and number of CABG surgeries annually per hospital. Kiesbeter.nl is a start for publication of additional quality data on a national platform.

Norway: The government reimburses

The government pays hospitals based on the ISF (activity-based funding) system, which is refined annually and based on the calculation of DRG weight multiplied by unit price multiplied by 40 percent. Coronary bypass is performed only at the large regional hospitals and some privately owned cardiology clinics. Patients are free to choose their provider, but there's usually a wait. A referral from a specialty physician is required. A government site, www.frittsykehusvalg.no (free hospital choice), publishes average waiting times and general quality statistics for each hospital. National statistics regarding treatment and quality are collected by the Directorate for Health and Social Affairs and published online.

United States: Cardiology is a service line profit centre

Cardiology services are considered profitable for many hospitals, which rely on high volume to fund other, less profitable services. The procedure requires referral by a specialty physician, and the amount the hospital is paid depends on whether the government or a private health plan is the one paying the bill. However, the hospital DRG payment is separate from the payments for professional services provided by the surgeon and anesthesiologist.

Patients have a choice of facilities and can get some quality information—such as mortality rates—that Medicare publishes online. Employer groups recommend that patients select facilities that perform at least 500 bypass operations a year, but others caution that volume shouldn't be considered as the sole indicator of quality.[7] One private company, Thomson Healthcare, publishes a list of top cardiac hospitals.

England: Elective or nonelective is at issue

The price of a coronary bypass depends on whether it is for elective care or nonelective care. Like in Ireland, if the length of stay deviates from the inlier range, the DRG price will be higher. For each day exceeding the defined stay, this will be a payment of about £383. Beginning this year, all patients scheduled for planned elective care will have the right to select treatment from any provider that meets eligibility criteria and National Health Service (NHS) clinical and financial standards. Primary Care Trusts will be responsible for commissioning services from at least four local providers. Hospitals meeting eligibility criteria will be allowed to list their services on a national menu of available treatment providers. Patients will then be able to select either a locally commissioned provider or a provider from the national menu at the point of referral.

A patient's GP or other primary care professional is primarily responsible for guiding the patient through the selection process, although the NHS Choices site is being developed to support patient decision making by providing information on provider performance, clinical quality, and patients' feedback.

Germany: Quality information is coming up

Like other DRGs, cardiology services are reimbursed based on centrally calculated costs in Germany. A German hospital typically performs a coronary artery bypass either after a referral by a patient's specialty physician or in an emergency. Payment is the same regardless of the patient's insurance status. The payment varies depending on the negotiated base rate of the hospital, which leads to different economical results for each hospital. In addition, when privately insured patients have the procedure performed by the department chief, an extra payment might be received.

In determining which facility to select, patients have limited access to publicly available quality information. Therefore, they typically rely on recommendations from their referring physician. Since 2004, hospitals have published quality information every second year. Detailed information on DRGs is published only if the particular DRG is within the hospital's top 30 DRGs. General benchmarking information is not available publicly. A coronary bypass procedure can fall into five DRGs depending on the patient's comorbidities and the complexity during the inpatient stay.

Australia: Public sector versus private sector is the issue

Hospital reimbursement for coronary bypass surgery in Australia depends on whether the surgery takes place in a public or private hospital and the state in which the public hospital is located. Limited hospital performance data are currently publicly available in either the public or private systems.

If it is determined that a coronary bypass is required and the treatment is covered by a private health fund, the private hospital will be paid for accommodation, the services of an intensive care unit, and theatre band on either a per diem or case mix basis depending on the contracted terms with the health fund. Detailed activity and cost data on DRGs is currently pending for the private sector.

If the patient does not have private health insurance, hospital care will be delivered in a public hospital. Public hospital activity is met through tax-funded sources from a combination of federal and state government allocations. Statistical information regarding case mix is available for all public hospitals in Australia, but different states have taken different approaches to the implementation of case mix as a basis for funding. For example, in the state of Victoria, public hospitals are case mix funded with annual rebasing (resulting in a lag between actual costs and case mix rates), whereas in the state of New South Wales, hospital funding is still population based, although a shift to case mix funding is projected in the coming year.

I. How sustainable is a health system that's based on imperfect payments?

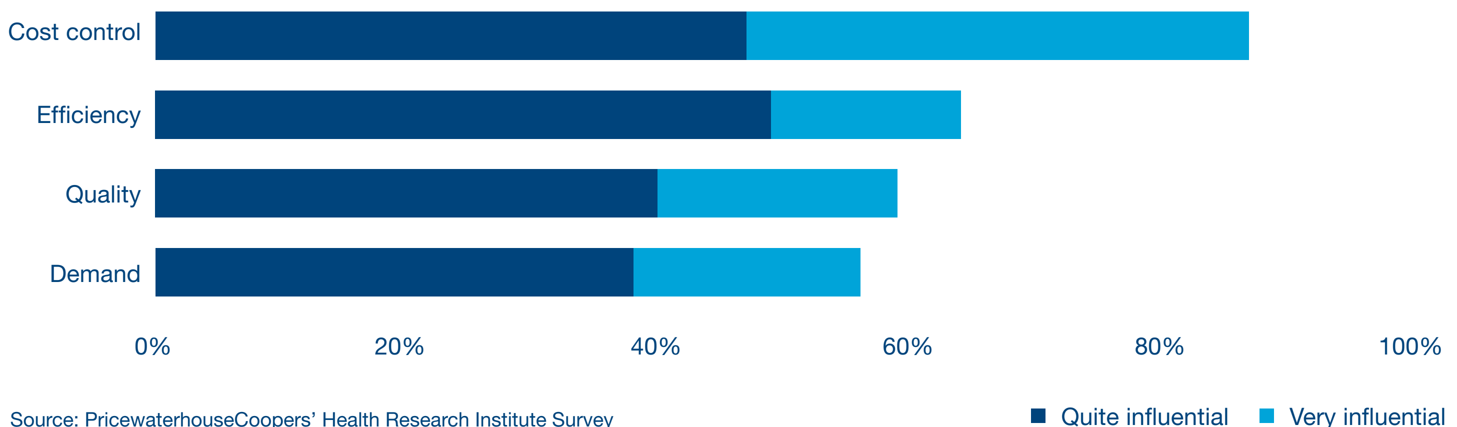
Although almost two-thirds of global health leaders surveyed for this report thought the performance of their country's health system was good or very good, less than 40 percent gave the payment system a grade of good or better. The notion that traditional payment systems aren't paying for the right care was underlined in our interviews.

Payment systems are continuously changing, but health executives said they know what the future holds: more emphasis on cost control. (See Figure 5.) Unfortunately, in their eagerness to contain costs, payers may marginalise other important factors, such as quality and efficiency. Efficiency and quality are closely aligned and affected by various incentive systems, many of which are topics of experimentation and discussion in various countries. Meanwhile, demand holds an important grasp on the control of health spending.

The bottom line is that provider behaviour is determined by payment. As Joop Hendriks, chairman of the board of Bronovo Hospital in the Netherlands, said: "If the government pays for Christmas trees, hospitals will produce Christmas trees."

In the following sections, we address how payment systems are integrating into their models certain incentives that address quality, efficiency, and demand.

Figure 5: How influential will the following factors be in terms of influencing future reimbursement?



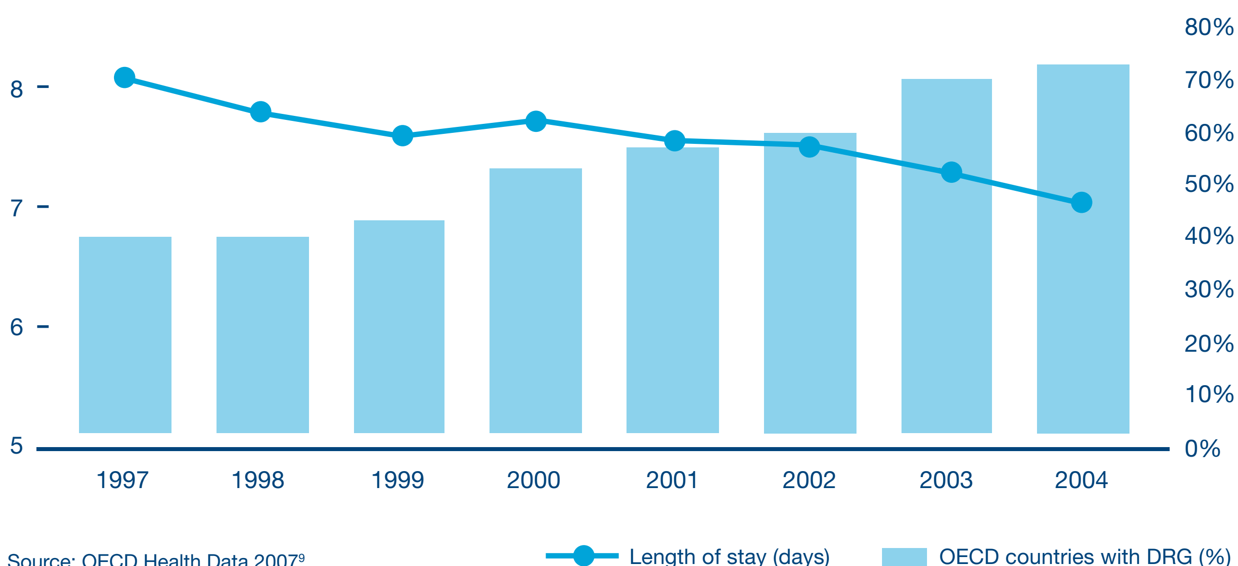
Source: PricewaterhouseCoopers' Health Research Institute Survey

II. Efficiency: Driving efficiency through reimbursement remains difficult because health systems are often not flexible enough in reacting to and anticipating change.

The move to case rates has improved efficiencies. An HRI analysis of how DRGs have affected health spending showed that as more territories have adopted DRG-like payment, they've reduced inpatient utilisation. As shown in Figure 6, average length of stay and number of hospital beds per capita have dropped in OECD countries as the number of countries implementing DRG-like payments has increased.[8]

However, health executives say that further efficiency improvements are needed. Jörg Blattmann, chief executive officer of one of Germany's largest healthcare providers, Johanniter GmbH, contends, "DRG-based reimbursement as it is used in Germany today is not supporting any further innovations within the medical field because the really innovative procedures are not reimbursed through DRGs." In Spain, the Catalan purchasing model, which separates providers from purchasers, was originally designed to incorporate structure and complexity into hospital reimbursement. However, Manuel del Castillo, general director of Hospital Sant Joan de Déu in Barcelona, said this about the existing model: "It was good for referral hospitals, but not so good for small hospitals. However, the system has gradually been distorted to the point that we now have an almost budgetary system with little incentive."

Figure 6: Average hospital length of stay and percentage of OECD countries with DRG systems



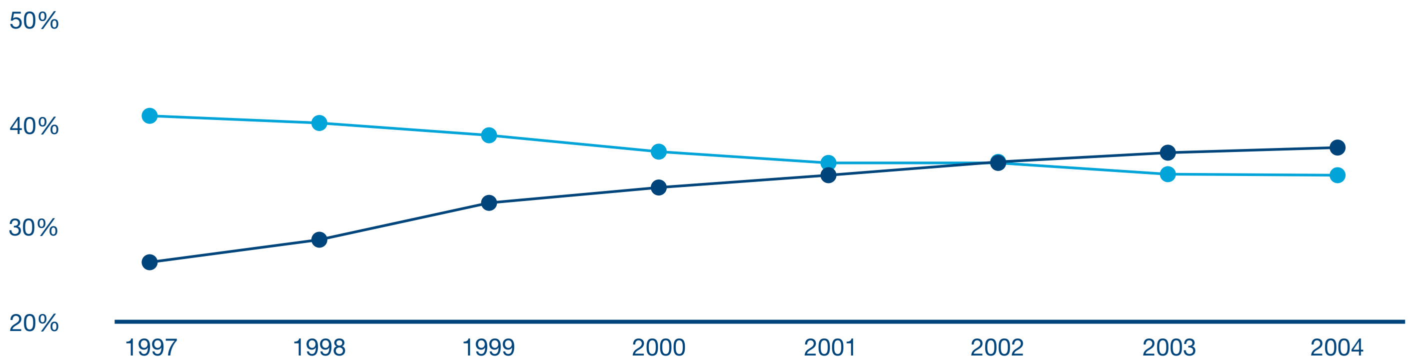
Source: OECD Health Data 2007[9]

For example, payers motivated providers to reduce length of stay and deliver care in less expensive, outpatient facilities. One example is evident in Ireland. “In the private hospital setting, Voluntary Health Insurance [VHI] has been very successful through persuasion, insistence, and cooperation with hospitals and medical consultants to maximise the use of day care facilities as opposed to inpatient settings. As a result, during the past 10 years there has been an 85 percent increase in claim volumes, with only a 5 percent increase in inpatient bed nights,” said Bernadette Carr, MD, of VHI.

This shift, which was enabled by technology improvements, meant that the volume of outpatient surgical day cases has been increasing, while inpatient volume has been decreasing. (See Figure 7.)

However, unless reimbursement supports the implementation of technology, the adoption of technology will not occur. “Better value would also be achieved if there was greater flexibility in terms of moving resources and services,” said Brian Fitzgerald, director of finance at St. James Hospital in Dublin. “For example, services tend not to be adapted to changes in demographic structure. Services [and] systems are put in place to suit requirements at a given time but don’t change over the years to reflect changing needs and demographics.”

Figure 7: Surgical procedure volume and inpatient spending in OECD countries



Source: OECD Health Data 2007

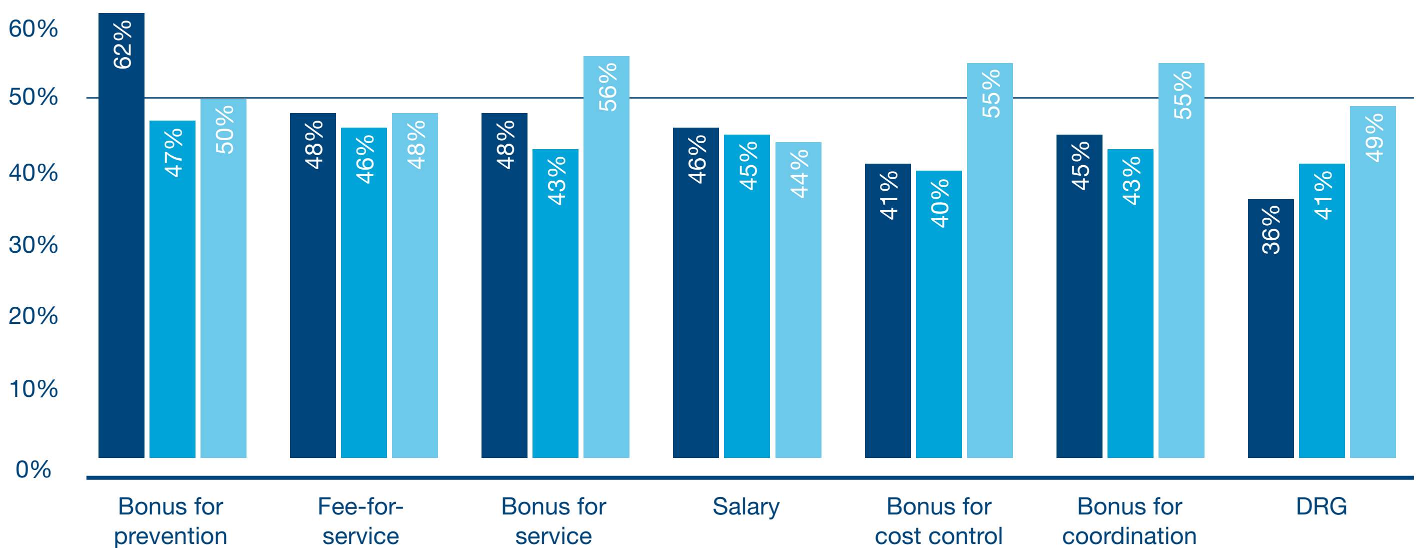
- Surgical procedures: number of day cases as % of total
- Inpatient spending as % of total healthcare spending

In the same way that technology must be incorporated into reimbursement models, planning and financing for capital resources must also be considered. Fitzgerald goes on to say, "Incentives need to be tied to hospital reimbursement. Hospitals should be able to borrow up to certain levels to finance capital projects. At the moment, hospitals are not allowed to borrow." Capital resource reimbursement is increasingly being included in the DRG payments, and as demand shifts to the outpatient setting, reimbursement for capital may need to be reconsidered to reflect the shift in demand.

Boosting performance through incentives is supported, but it may be too early to know what works best.

While few countries are using bonuses, HRI survey respondents seemed unsure about how effective bonuses would be. As Figure 8 shows, only four types of bonuses were supported by more than half of the respondents. More than 60 percent said bonuses for prevention would be effective for GPs. About 55 percent supported bonuses for hospitals for the areas of service, cost control, and coordination. The reluctance to support different bonus structures may result from the lack of experience with them, as shown in Table 2.

Figure 8: Reimbursement models rated very effective at incentivising general practitioners, physicians and hospitals to improve cost, quality and efficiency



Source: PricewaterhouseCoopers' Health Research Institute Survey

The difficulty in implementing effective incentives was a frequent discussion point with health industry leaders interviewed for this report. Most of the Dutch and German interviewees described the need for further deregulation that could lead to more market-driven results in efficiency. When private providers represent a major part of the healthcare system, profit sharing is viewed as a positive incentive. The Netherlands currently prohibits providers from profit sharing but is expected to allow some kind of profit distribution by 2012.[10] Sharing profits with physicians is viewed as a way to align incentives with the hospitals. Currently, physicians are fully paid by diagnosis treatment combinations (DBC), which is the name of the Dutch DRG system. The revenue of hospitals, on the other hand, comes from DBC reimbursement for only about 20 percent of their cases.[11] The remainder of their revenues is a fixed budget.

Physicians have a financial incentive to increase production, while hospitals have to stay within their budgets. Now, physicians are concerned only with the results and interests of their partnerships. By making them shareholders, they would be concerned with the results and interests of the whole hospital. It is anticipated that this would lead to better coordination and common strategy development and to better quality and efficiency of care.[12] While distributing profits from the hospital itself is currently prohibited, when a hospital uses a subcontracting company for some procedures, that subcontractor is allowed to distribute profits, since it does not distribute hospital profits. As a result, there are already hospitals in the Netherlands that are introducing a form of relationship that has financial incentives for both the hospital and the physician, whereby the physicians (49 percent) and hospitals (51 percent) together hold the shares of a company that performs activities in the field of the participating physician specialists.[13]

Interviewees identified a need for more market mechanisms as a means of increasing incentive alignment. Johan van Manen, senior policy adviser of Dutch Healthcare Authority (Nederlandse Zorgautoriteit), favours more market-driven reforms: “The government should stop regulating every detail in healthcare. The government should intervene only in case market mechanisms do not work—like a shortage in supply or excessive buying power of insurance companies. That is a whole different approach from a government’s discussing diagnostic treatment combinations on an individual level.”

Multiple funding systems and payers operating together create potential for conflicting incentives.

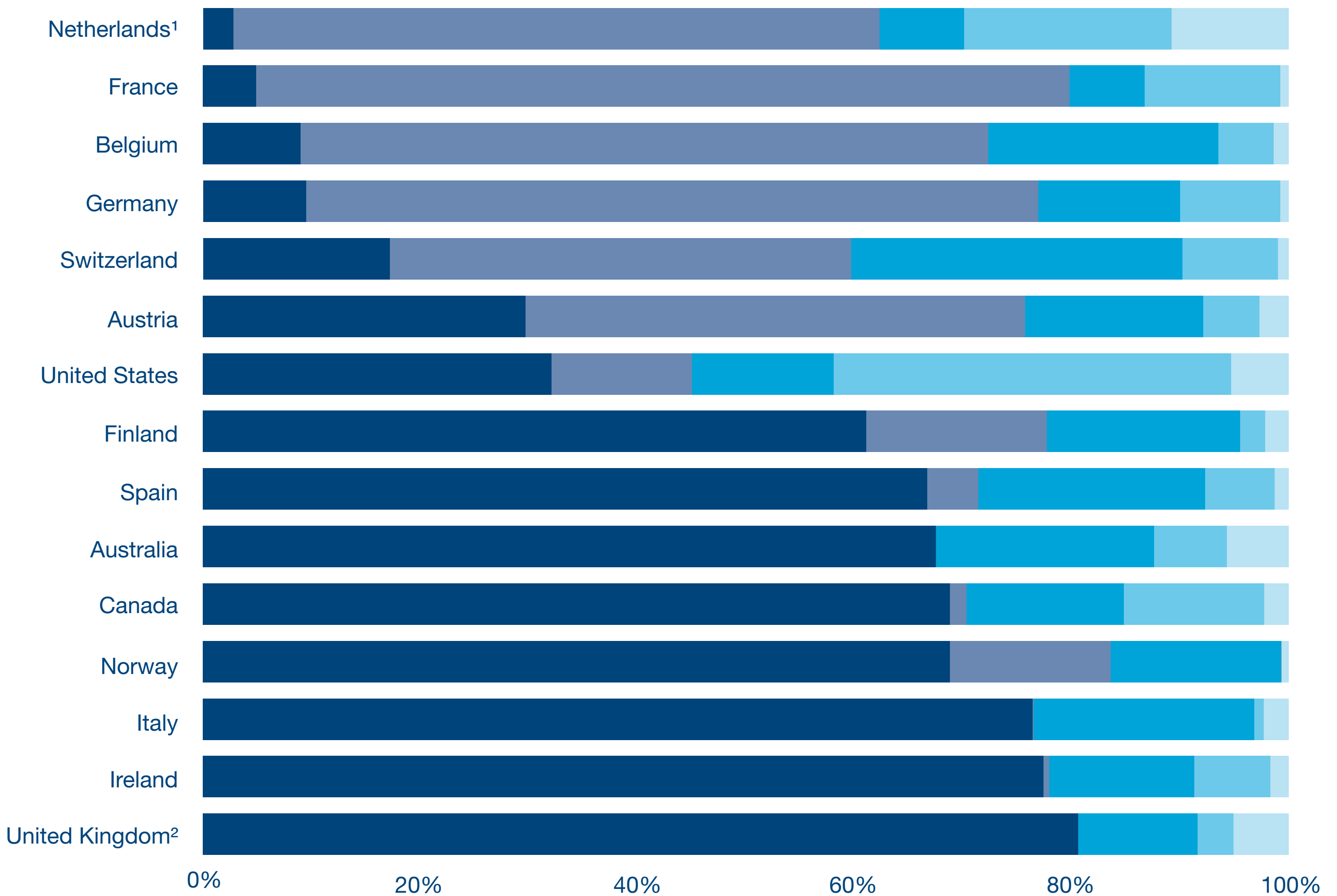
Payment for healthcare services can differ by payer, each of which has its own financing and incentive systems. A government that pays for care that’s financed through taxes may develop different incentives from those of private or social insurance systems because it has different goals. As Figure 9 shows, healthcare is financed in different ways in different countries. Different methods of funding healthcare include government taxes, private and employer-sponsored insurance plans, and patient out-of-pocket payments.

Countries are increasingly introducing a measure of market-based competition to both spread the burden of payment and encourage efficiencies. However, the addition of payers may create chaos with incentives. For example, Finland and the Netherlands have several separate reimbursement systems. In Finland, municipalities reimburse public healthcare, while KELA, the national health insurance agency, reimburses

medication and private healthcare. Janne Aaltonen, project director of research and development in the Hospital District of Helsinki and Uusimaa, adds that the two reimbursement mechanisms nearly always apply, resulting in some cases of perverse incentives. In the Netherlands, long-term care (AWBZ) is tax funded, while curative care (ZVW) is financed by insurance premiums. This results in the incentive to get patients out of the hospital quickly, because home-based care and elderly care have a different financial source.

The US provides the most extreme example of multiple payers with multiple incentives and payment methods. For example, about 700 different organisations, health plans, and employers pay the bills at Johns Hopkins Health System in Baltimore. Each one has different rules about what's eligible for payment, how much to pay and when to pay.[14] In addition, nearly 60 different indicators of physician performance are being used by 10 plans surveyed by the Health Research Institute, yet not a single indicator was used by all 10 plans, and no two plans rewarded providers for performance in the same way.[15]

Figure 9: Sources of healthcare reimbursement (2005)



Source: OECD Health Data 2007

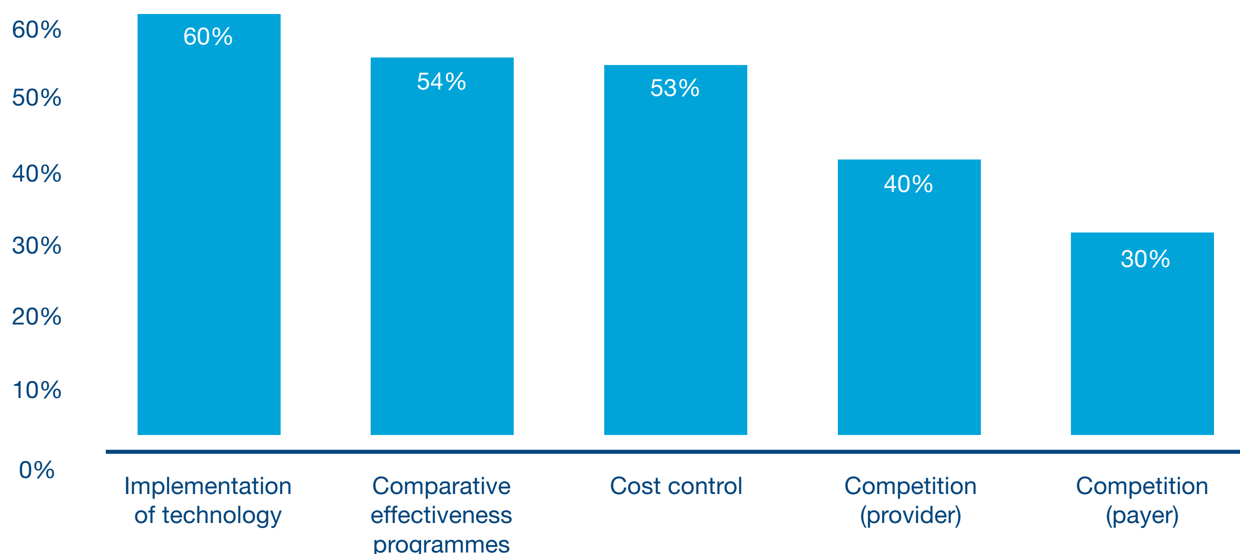
Technology's positive impact on efficiency can negatively impact bottom lines.

As new technologies emerge and demand for services increases, reimbursement systems must react quickly and adjust payments to reflect those advances in technology and innovation. One German hospital executive said, "DRG-based reimbursement as it is used in Germany today is not supporting any further innovations within the medical field because the really innovative procedures are not reimbursed through DRGs."

In response to the apparent lack of innovation derived from retrospective reimbursement systems, health system executives identified technology and increased implementation of comparative effectiveness programmes as key attributes to improve efficiency in their healthcare systems. (See Figure 10.) Common comparative effectiveness programmes include international benchmarks, best-practice solutions, and consistent measurement standards.

The challenge for payers and providers lies in determining which technologies to invest in and how to drive adoption and efficiencies. Iris van Bennekom, director of the Federation of Patients and Consumers Organisations in the Netherlands, said, "If we talk about innovation, people think about describing the innovation on paper, consensus in society, a project subsidy, and some early adopters, and then it's finished. But as long as we don't finance implementation of innovative ideas, realisation will never happen."

Figure 10: Attribute for improving efficiency



Source: PricewaterhouseCoopers' Health Research Institute Survey

Comparative effectiveness is increasingly viewed as a means of determining which new medical technologies should be covered. To make such coverage decisions, the UK uses an incremental cost-effectiveness ratio, which determines the additional cost required to generate a quality-adjusted life-year (QALY)—meaning, a year of perfect health. The decision for coverage or funding can be based on the costs per QALY—for instance, no coverage or funding if the cost exceeds a certain threshold. However, research has shown that while this method has not necessarily reduced healthcare costs, it does focus on managing the efficient use of healthcare funds.[16] It should be noted that QALYs are used for hypothetical analysis of a technology and not on a patient case-by-case basis.

Payers often express concern about the financing of advancements in technology because medical technology may lead to increased utilisation. Hans Hopmans, innovation manager at the Achmea Zorg, a Dutch health insurance company, said, "The role of technology doesn't make me happy. It may lead to my biggest nightmare. We definitely need a covenant with the industry. If you think about the technology regarding early detection of illnesses, then 95 percent of the population will be sick in 10 to 15 years. We can always find some kind of illness or at least a high risk to get sick. Is this the most important value that consumers are waiting for?"

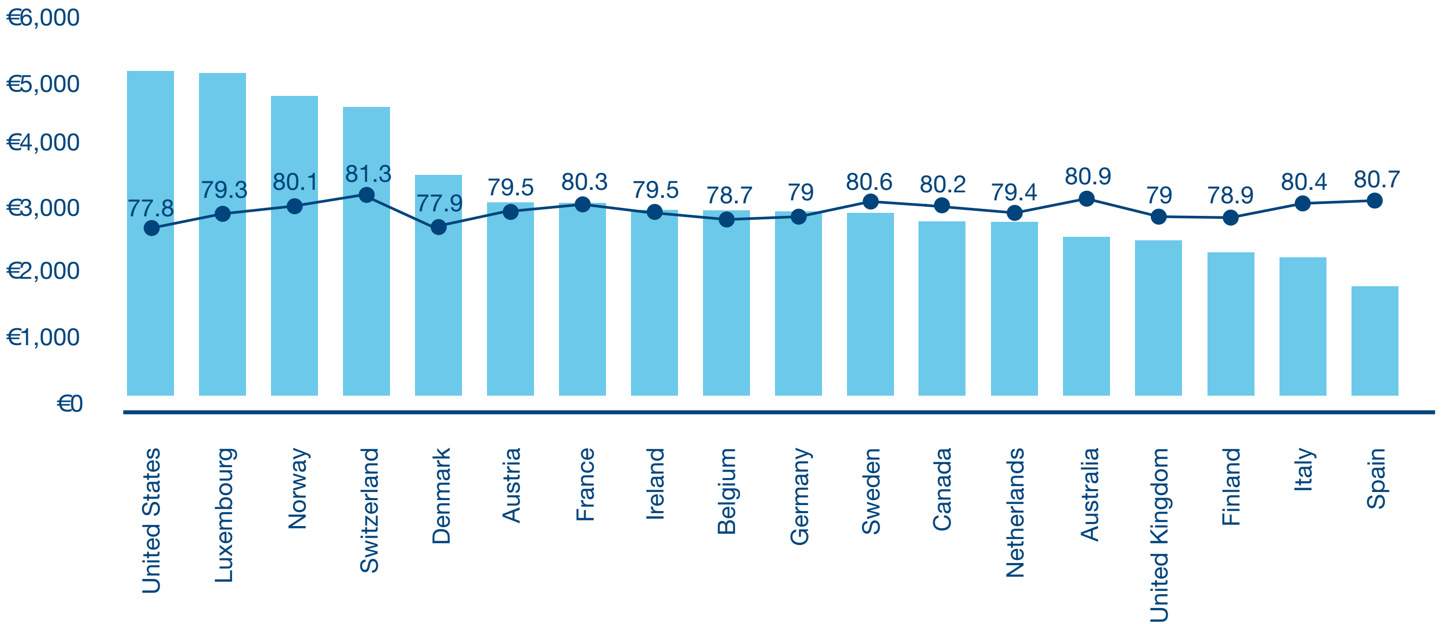
The following table identifies transferable lessons in efficiency from around the world:

Transferable lesson	Countries using best practice	Description
Connect operational and financial planning	Finland	The government allows some hospitals to share in the productivity savings that their units/facilities generate.
Use medical home relationships and standardised-care pathways	Australia, Canada, Finland, Germany, Netherlands, United Kingdom, United States	Surveys have shown that those with medical home relationships reduce reliance on emergency rooms and duplicative tests.[17] In Finland and Germany, standardised-care pathways are using evidence-based data.
Develop legislation empowering consumers	Netherlands	A new law that focuses on healthcare consumers and quality and that includes the right to coordination of care[18]
Incorporate capital financing into payments	Austria, England, Finland, France, Italy, Sweden, and the United States include capital costs in their DRG systems, and the Netherlands plans to follow in 2009.	As more care is delivered in outpatient settings, capital planning and financing follow with payment methods that encourage flexibility and innovation.
Streamline efforts toward interoperable health information systems	Finland, France, Germany, United States	Electronic medical record implementations are under way in France, Finland, and Germany to facilitate exchanges among health professionals and reduce duplicative tests and treatments while increasing quality. A Medicare pilot project in the US would pay up to $58,000 per physician to small- and medium-sized primary care practices for using electronic health records.[19]

III. Quality: Payers and providers are collecting quality data, but actionable information is in short supply.

Many healthcare organisations have defined quality with attributes around technical proficiency, safety, and respect for the patient. One widely accepted definition of quality was developed by the Institute of Medicine: "The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge."[20] Often, initial thoughts about improving quality are linked with increased costs. Research shows, however, that an increase in spending is not always tied to longer life spans. (See Figure 11.)

Figure 11: 2005 life expectancy at birth and total annual health expenditures/capita



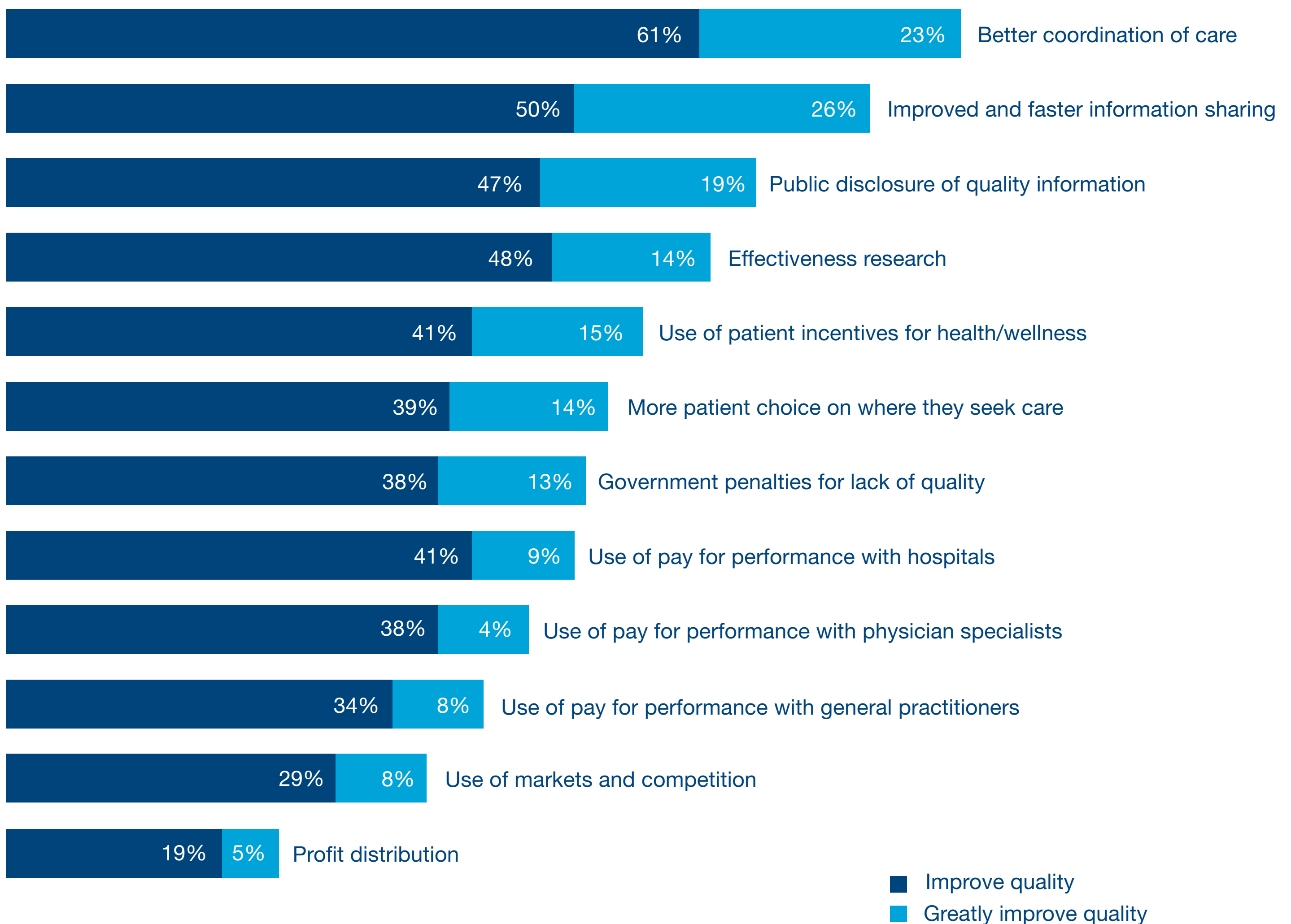
Source: OECD Health Data 2007

When payment is siloed, so is care, leading to a lack of coordination.

HRI survey respondents identified coordination of care, increased data sharing, improved transparency of quality data, and effectiveness of research as primary actions that would improve quality in the healthcare system. (See Figure 12.)

Ideally, healthcare providers strive for optimal quality by implementing these types of programmes. However, health systems worldwide are still evolving toward measurable ways of assessing quality that is meaningful to all stakeholders, including patients. In Finland, Heikki Korvenranta, project leader at Turku University Hospital, comments, "We are building quality into our health system through evidenced-based medicine standards. The challenge is finding the right incentives to ensure compliance with these standards."

Figure 12: Which of the following actions would improve quality the most?



Source: PricewaterhouseCoopers' Health Research Institute Survey

Quality information is asymmetrical to decision makers.

Patients, providers, payers, government, healthcare authorities, and all other healthcare players need access to information about quality. However, the perception of quality, particularly by patients, may not always be based on published results. "There is still a lack of timely and valid information about the real quality of different hospitals' services," said Gunnar Skavoll, CEO at Stavanger University Hospital in Norway. "As a consequence, patients too seldom make their choices based on good-quality information. Most patients still make their choices based on waiting times, geography, reputation, and, to some extent, individual relations." Even some providers do not have access to quality information. For example, because English GPs do not have access to data on hospitals, their referral activity is based primarily on perceived reputation and not data.

Do patients act on quality information?

Patients are accessing more information than ever, but it is unclear at this point whether they understand it and use it appropriately and effectively. Beginning in 2004, German hospitals had to publish quality reports every two years. However, the University of Applied Sciences in Cologne looked at 1,989 quality reports of German hospitals and found that the information could be understood only by experts—contrary to the goal of providing better information for patients. Additionally, most of the reports were collected internally, by hospital employees and without external control. This led to questions regarding the transparency and accuracy of the published data.[21] "Current quality lists in newspapers and magazines are useless, because they all regard hospitals in general and do not specify disorder treatment," said Hans Feenstra, board of directors chairman of insurance company De Friesland. "Every hospital has its wards that are good and that are not good." Furthermore, certain countries, such as Germany, limit healthcare providers from publishing certain quality information for commercial use, especially for advertising purposes.[22]

While quality information may not affect patients' decisions, it can motivate physicians. Julian LeGrand, Richard Titmuss Professor of Social Policy at the London School of Economics, said, "US evidence is that patients do not use reports on quality and benchmarking to switch their care from one clinician to another, but the reports did impact on docs who didn't like being ranked on the bottom."

Sufficient bonus payments can improve quality: The NHS in England.

The National Health Service in England has taken the lead in rewarding quality by using the Quality and Outcomes Framework (QOF) for paying GPs. While implementation of the QOF is relatively new, preliminary results have shown significant improvements in the management of asthma and diabetes.[23] In 2003, under the new General Medical Services Contract, the government launched the QOF, a comprehensive framework of clinical, organisational, and patient experience measures against which general practice performance could be measured. The intention of the QOF is twofold: to improve clinical quality in primary care and to raise overall performance standards by reorganising the way in which care is delivered. Not only does it provide incentives for GPs to improve clinical care, but it also rewards increased investment in additional support staff—both clinical and administrative—and information technology. In many cases, it also encourages the expansion of chronic disease management clinics in order to meet rigid performance requirements.

Under the QOF, points are allocated for reaching performance thresholds for each indicator. In the first two iterations of the QOF, GPs could earn a total of 1,050 points, with each point worth approximately £125. After adjusting for the relative incidence of disease, this could amount to a 33 percent increase in gross earnings per GP depending on the level of investment back into the practice required to maintain high-quality standards. As of 2006/07, despite the addition of new clinical areas to the framework, the total number of available points decreased to 1,000. While this change did not affect total potential earnings in theory, it raised the performance bar, forcing GPs to expand their clinical repertoire to achieve similar financial gain.

In the first round of the QOF, GPs exceeded expectation, achieving an average of 91 percent of total available points. This resulted in an average increase in GP earnings of £23,000 across the country.[24] Subsequent rounds yielded similarly high results despite revisions to the framework to make it more difficult. Emerging research on the QOF suggests that it has already succeeded in improving the quality of care for both asthma and diabetes. In addition, although it is still too early to tell, unilaterally high achievement across practices, irrespective of practice location, suggests that it might also succeed in narrowing the care differential between deprived and affluent areas.

The QOF has endured some heavy criticism. Sceptics claim that its metrics are too easy and that the combination of low performance thresholds and exception reporting (the exclusion of noncompliant patients or patients to whom normal care processes do not apply from target population) acts as a disincentive for targeting the segments of the population most in need of care. In addition, there is widespread belief that the same performance improvements could have been achieved at a fraction of the cost. Despite those criticisms, however, the QOF offers many lessons to other health systems as they look to develop similar pay-for-performance frameworks across both primary care and specialty care.

The following table identifies transferable lessons in quality from around the world:

Transferable lesson	Countries using best practice	Description
Implement practice incentives programmes	Australia	Financial bonuses incentivise comprehensive quality care to meet Royal Australian College of General Practitioners Standards for General Practices.
Impose financial penalties for not meeting standards	Finland, Ireland	Three of 21 hospital districts were fined €500,000 to €1 million by Finland's government for lengthy surgery waiting lists. The hospitals must reduce the wait for surgery to six months or less. A combination of public reporting and financial penalties resulted in "vast improvements to Ireland's national hygiene audit," said Liam Duffy of Beaumont Hospital. The same model is being expanded to improve A&E (ambulatory and emergency) service and patient admission processes.
Tie portion of overall hospital budget to quality indicators	Spain	The Valencian Community measures more than 60 performance indicators such as health promotion in primary care, prescription appropriateness, and patient safety in hospitals. "Although this does not guarantee that every patient gets the right care at the right point, it does tend to promote a systems approach that standardises care delivery across organisations," said Manuel Cervera, regional minister of health of the Valencian Community.
Use quality scorecards to increase transparency of information	Netherlands, United States	In the Netherlands, payers and providers are monitored for quality by the national healthcare inspection as a condition of contracting. Payers have developed scorecards that use quality metrics to reward healthcare providers for quality. While results have varied, in the US, the Medicare Hospital Quality Demonstration Project exhibits reduced mortality rates along with hospital cost per patient.[25]
Limit reimbursement for certain treatments	Germany, United States	In some instances, health insurers are denying payment for a second round of treatment when the first round was deficient. US pharmacy benefits managers use step therapy, which requires a physician to prescribe the lowest-priced drug option before trying more-expensive alternatives.
Use evidence-based treatment guidelines and payment	Some countries in Europe	Under the German prototype system QUELL (quality, transparency, and efficiency), physicians specialising in respiratory services would be paid for results rather than activity. Physicians would get paid for new patients, for patients who do not return with the same diagnosis within a certain time frame, and for following guidelines.[26] Some countries in Europe are tying payment for certain drugs to the effectiveness of the drugs. The idea is to negotiate drug prices based on whether a patient responds to a treatment. Some companies provide refunds in cash for product if patients do not achieve the desired therapeutic benefit.[27]

IV. Demand: Improvements in demand management are relying more on patients as their role is becoming increasingly important in directing their care.

Most of the industrialised countries use gatekeepers to control demand, to ensure patients receive the right treatments, and to prevent overutilisation. General practitioners in Australia, Canada, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Spain, the UK, and, often, the United States act as gatekeepers to more expensive resources and treatments. In addition, higher out-of-pocket payments serve as gatekeeper functions in Belgium and Switzerland, where a general practitioner referral is not required.

As demographics, technology, and unhealthy lifestyles increase pressure to effectively manage demand, payers must determine the most-effective tools to assist in this process. According to the HRI survey, better-informed patients and improved health education and communication ranked highest as effective tools in managing demand, while gatekeeping and out-of pocket payments ranked at the bottom. (See Figure 13.) In the US, some health plans are creating personalised health profiles based on patient claims data. For example, Aetna reported it plans to link claims data with online searches performed by enrolees to further personalise health information.[28]

Figure 13: Ranking of demand management attributes/forces

Rank	Overall rank
Better-informed patients	1
Health education and communication	2
Care pathway guidelines[1]	3
Entry-point-to-care setting[2]	4
Gatekeeping[3]	5
Out-of-pocket payments	6

1 A standardised process of care based on data and evidence.

2 Directs patients to the most efficient care setting such as hospitals, clinics, and ambulatory surgery centres.

3 Patients must get permission from general practitioners before seeking more complex or specialty care.

Source: PricewaterhouseCoopers' Health Research Institute Survey

Ana Lorenzo, managing director of CIGNA Spain, emphasises that when price is linked to better outcomes, such as defined protocols and proven effectiveness, it plays a key role in managing demand. Transparency of price information can be an effective tool to manage the payer-provider relationship.

Patients often choose healthcare providers based on proximity or recommendations from their general practitioners. GPs play a central role in dictating demand, especially within systems that use them as gatekeepers. "What the physicians say is extremely important. They are the most important formal and informal referral network," said Javier Colás, president of Medtronic Spain. The gatekeeping concept provides patients a consistent initial physician contact whenever they require medical care, excluding emergency care. The gatekeeper performs initial diagnostic treatments and decides whether a patient requires specialist care or hospitalisation.

Yet many interviewed for this report expressed concerns about the effectiveness of GPs acting as gatekeepers. Dutch Federation of Patients and Consumers Organisations director van Bennekom said, "The general practitioner getting fee-for-service can't really be the gatekeeper. With all due respect for general practitioners, they have a lot more visits when receiving fee-for-service than [when] receiving capitation. Let's be honest: money tempts people to do everything." Another factor affecting appropriate gatekeeping is the limited availability of data for GPs to review so they can adequately direct patients requiring additional care.

More health executives favour transparency of information so as to direct both clinicians and patients. "The role of the GP should be extended to provide information and prevention" to effectively perform this responsibility, said Aldien Poll, strategic adviser of healthcare purchasing innovation at Agis Zorgverzekeringen, a payer in the Netherlands. "Insurers should provide GPs with information about quality." However, to achieve transparency, payers and providers need to establish incentives and produce comparison data so that patients can clearly identify which institutions or physicians are most attractive to them depending on their individual care needs. Through the establishment of efficiency and quality benchmarks, transparency can help steer demand not just at the point of emergency medical care but also throughout the entire system.

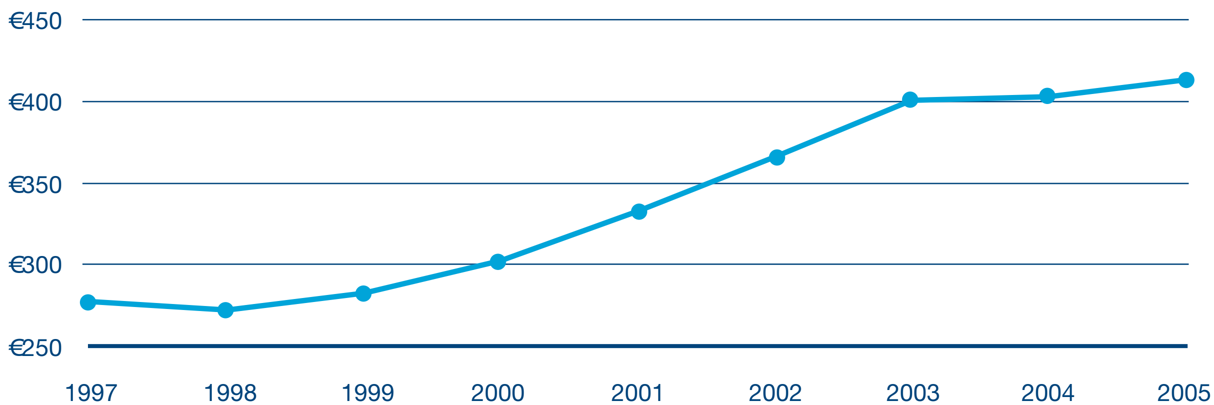
Health systems that have developed rational and efficient pricing systems will have a competitive advantage in a global market for medical services.

The number of cross-border treatments within the European Union (EU) is relatively low—about 1 percent of all health spending—but is expected to increase as people seek care in countries with shorter waits and higher quality.[29] Consumers are willing to travel further to receive care if it means better quality or shorter wait times.[30] Favourable rulings from the European Court of Justice also could increase medical cross-border traffic. Before 1998, patients could get reimbursement for treatment only for necessary care during a stay in another member state. Since then, however, the European Court of Justice has ruled that patients may seek nonhospital care in any other EU country without prior authorisation and be reimbursed up to the level provided by their own system. They also may seek hospital care with prior authorisations from the home country with similar reimbursement limits.[31]

Globalisation of the healthcare market contains both opportunities and challenges for patients, providers, and payers. As out-of-pocket costs rise for those consumers (See Figure 14), they may be more willing to absorb additional travel costs in order to access quicker, less expensive, or higher-quality care. Patients accessing health services in other countries could threaten those countries' cost-containment mechanisms such as waiting lists, but they could also provide incentives to higher-cost countries to send their patients to lower-cost countries. Combined with higher prices for treatment of people from outside the country, this could give providers the incentive to give priority to out-of-country patients and thus disadvantage local patients.

However, the current patchwork of payment systems makes it difficult to bill across territories. Increasing trends in medical tourism and rising out-of-pocket costs are highlighting real international price and cost differences in care. "National reimbursement systems are not adjusted to the fact that patients are able to get healthcare abroad under new rulings by the European Court of Justice. To create a real European healthcare market, we need to make our healthcare system more compatible by using the same diagnosis classification method. The International Classification of Diseases–10th Revision (ICD-10) coding from this system could be very useful for comparing international performance," said Johan van Manen of the Dutch Healthcare Authority (NZa). Some contributors to the public consultation of the European Commission on EU action on health services also say a common EU DRG system is something to pursue in the long term to solve billing problems.[32]

Figure 14: Annual out-of-pocket payments per capita in OECD countries



Sources: OECD Health Data 2007, PricewaterhouseCoopers' Health Research Institute

Demand should be controlled through preventive-care incentives that highlight healthy lifestyles.

Chronic disease is the leading cause of death and disability around the world, and many chronic diseases can be prevented. “There are a lot of other things that produce more health than healthcare if you are making investment calculations,” said Seppo Ranta, development manager at TEO (the National Authority for Medicolegal Affairs) in Finland. Some payers have already begun incorporating financial rewards into their models. In the Netherlands, for example, in some districts in The Hague, health insurers pay for gym memberships for obese patients.[33]

However, this will require a shifting of incentives toward community-wide health. Anthony Slonim, MD, of Carilion Clinic in the US, said, “Health systems, as community providers, need to invest in their communities. The problem is that health systems won’t get reimbursed for this investment in the current system.”

Part of a collaborative environment—and a key factor in the development of a sustainable health system—are increases in patients’ roles and responsibilities in maintaining a healthy lifestyle and managing their own care. Franck Duclos, vice president of UGECAM (an agency under French healthcare insurance supervision [mandatory] in charge of managing more than 150 hospitals), at CNAMTS (Caisse nationale d’assurance maladie des travailleurs salariés) in France, said, “The system acts as a middleman between a practitioner who prescribes and a patient who consults, both of which do not enter into a classical commercial relationship but, rather, into one based on solidarity. Therefore, the system’s goal is to transfer responsibility to both the patient and the practitioner. . . . The sustainability of health systems greatly relies on patient awareness and on behavioural changes in our society.”

One way health insurers are attempting to increase patient responsibility in managing patient health is the development of wellness initiatives. UK-based insurer Pru Health has incorporated a variety of wellness programmes that allow enrolees to earn points to reduce next year’s premium based on healthy choices. Initiatives include earning incentives

for achieving measured physical activities or weekly gym attendance; participation in health screenings like cholesterol and blood pressure monitoring; buying fruits and vegetables at designated supermarket chains; and providing assistance with smoking cessation.[34] While similar programmes may be popping up in many countries, others do not allow for financial incentives to be tied to such programmes. In Ireland, for example, community-rating laws prohibit insurers from offering discounts to customers based on health considerations. However, insurers can participate in wellness. Vivas Health, an Irish-based insurer, offers members discounted fees to attend smoking cessation clinics; reduced-fee gym memberships; and health screening benefits, all of them targeting improvement of their enrolees' health.[35]

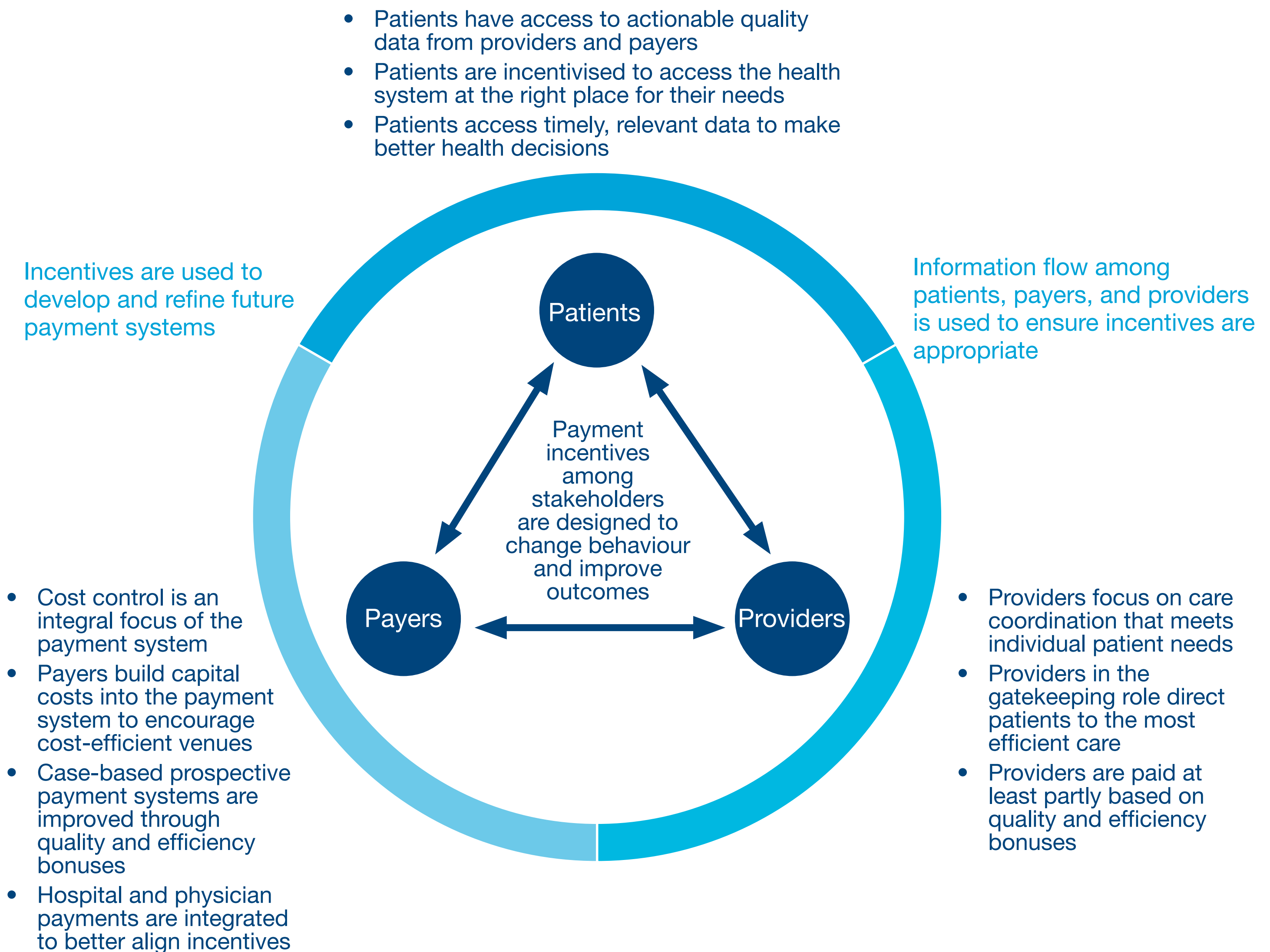
The following table identifies transferable lessons in demand from around the world:

Transferable lesson	Countries using best practice	Description
Produce patient-friendly health guides	Australia, United States	Wellness guides and other information are available on Web sites such as the Agency for Healthcare Research and Quality.[36] Having informed patients, allow them to choose health plans and doctors and to track the health services they receive. Some health plans also assemble data and offer disease management for members.
Reduce premiums for improvements in health conditions	United States	Western & Southern Financial Group and Clarian Health are among employers that either reduce the cost for employees or refund up to 20 percent of the cost of health insurance to employees who decrease their body mass index (a measurement of body fat) and complete an annual health risk assessment.[37]
Adapt uniform classification systems, such as ICD-10	Australia, Belgium, Canada, Denmark, England, Finland, France, Germany, Norway, Sweden	At least 10 countries have adopted ICD-10, and the US is considering adoption.

Conclusion

Our research has shown that the health of a health system is dependent on the health of the payment system. There is a close link between quality, efficiency, demand management and the structure of the healthcare payment system. Increasingly, countries will need to build high-performing payment systems in order to create a more sustainable healthcare system. Figure 15 shows the elements and attributes of a new healthcare payment model.

Figure 15: Attributes of a new healthcare payment model



The best payment system would be one based totally on the best possible outcome for the patient and the community. However, since that goal is very hard to achieve, the industry must work to ensure that payment for care is accurate and encourages efficiency and quality. It is a difficult and time-consuming effort, but payers, governments, and providers that adapt will benefit in an increasingly global marketplace.

The table below summarises how payers, governments, and providers can move toward the payment model of the future by changes through people, structure, and technology.

	People	**Structure**	**Technology**
Government	Include change management processes for physicians and other clinicians when redesigning payment Design national standards that can be implemented locally	Simplify payment structure to reduce complexity and conflicting incentives Include incentives for teaching, research, and development	Provide flexibility to encourage innovation
Insurers	Design incentives for physicians and patients that direct patients to the most appropriate location for care Design incentives to reward patients and physicians for prevention and wellness activities	Collaborate among payers and providers to standardise incentives Design incentives that encourage coordinated care rather than silos	Build in a review cycle so metrics can be regularly evaluated and updated to remain current with innovation
Providers	Develop culture of providing quality care while managing costs	Collaborate with payers to design incentives	Review capital cost distribution methods to incorporate IT

The wealth of nations is increasingly linked to the health of nations. In a global economy, the words of Dutch business executive Arie de Geus are relevant to healthcare payment systems: “The only sustainable competitive advantage is the ability to learn faster than the competition.”[38]

Glossary

Acronym	Expansion	Meaning
	Ambulatory care	Medical services provided in an outpatient setting.
ALOS	Average length of stay	Average number of days per hospital stay.
	Budget	Fixed amount of money given to providers to cover all of their activities, typically distributed on an annual basis.
	Capital costs	The costs of infrastructure, medical equipment and installations. Typically includes interest and depreciation costs for property, plant and equipment.
	Capitation	Fixed amount of money paid to providers per registered enrolee for a period of time.
	Care pathway	A standardised process of care based on data and evidence.
	Case mix	The relative complexity and intensity of services required to treat patients in a hospital due to diagnosis, disease severity, and patient characteristics.[39]
	Case payment	Fixed amount of money paid to providers for care given to a patient related to service provided per inpatient visit. An example of a case payment is diagnosis-related groups (DRGs).
	Comparative effectiveness	Research or study that compares the efficacy and efficiency of treatments, such as medications, therapies and procedures.
	Co-payment	Fixed amount of money paid to providers by insured patients per procedure, physician visit or pharmacy prescription.
DBC	Diagnosis treatment combination *(diagnose behandel combinatie)*	Dutch version of the DRG classification system; payments include physician payments and part of the outpatient costs.
DRG	Diagnosis-related group	The classification of patients by diagnosis or surgical procedure into major diagnostic categories in order to determine hospital payment. Originally developed by Medicare in 1983, DRGs are based on the premise that treatment of similar medical diagnoses generates similar costs.
EC	European Commission	The European Commission is the European Union's executive branch.
ECJ	European Court of Justice	The European Court of Justice is the European Union's highest court.
EU	European Union	The European Union is a 27-member federation of countries connected by political and economic interests.
	Fee-for-service	Amount of money paid to providers for each service.
	Gatekeeping	System of authorisation where patients must obtain approval before seeking more-complex or specialty care. Often administered by insurance companies, primary care physicians or other providers.
GP	General practitioner	General practitioners deliver primary care to a patient. The synonyms *family practitioner, primary care physician, ambulatory care physician and family physician* are also widely used.
	Inpatient	Hospital care that requires an overnight stay.
	Insurance-based system	The funding of healthcare that is funded primarily by social insurance programmes.
ICD	International Classification of Diseases	A system of categories used to classify morbidities according to established criteria. The classification system is currently in its 10th edition (ICD-10) and is published by the World Health Organisation.[40]
	Medical home	Provider tasked with coordinating patient's care.
	Medicare	Refers to several publicly funded health insurance programmes in such countries as Australia, Canada and the United States.
NZa	Dutch Healthcare Authority (Nederlandse Zorgauthoriteit)	The Dutch Healthcare Authority supervises the healthcare market in the Netherlands.
OECD	Organisation for Economic Cooperation and Development	The OECD is an international organisation based on the principles of democracy and free markets and it consists of 30 member countries.
	Out-of-pocket payments	Patient portion of medical costs paid to providers.
	Outpatient	Care that does not require hospitalisation.
	Payer	The administrative entity, either a government or an insurance company, financially responsible for purchasing healthcare services for a finite population. The term *commissioner* is used in England to indicate that the role entails more than financial administration and includes elements of healthcare needs planning and quality management.
P4P	Pay for performance	Payments to providers for meeting agreed-upon quality and efficiency targets.
	Primary care	The first source that a patient goes to receive care and may include physicians, such as general practitioners, and nurse practitioners.

	Prospective payment	The payment rate for a set of services, which is determined prior to the services, being delivered.[41]
	Provider	Supplier of healthcare services such as hospitals, physicians and general practitioners.
	Quality	The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.[42]
QALY	Quality-adjusted life-year	A measurement of the benefit of a medical intervention based on the number of additional years lived as well as quality of life.
QOF	Quality and Outcomes Framework	Introduced as part of the 2004 new General Medical Service Contract, an annual reward and incentive programme in which GPs receive payment for meeting healthcare quality targets.
	Retrospective payment	The payment rate for a set of services is determined after the services are delivered.[43]
	Salary	A fixed amount of money paid by an employer to an employee for a period of time.
	Sickness fund	Third-party payer in a social health insurance system covering the community as a whole or sections of the population. Sickness funds are usually quasi-public bodies. Synonyms are *sick funds* and *health insurance funds.*[44]
	Social Health Insurance	Healthcare funding system that relies primarily on a greater mix of private and public funds to pay providers.
	Tax-based system	Healthcare system funded primarily by taxes.

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PricewaterhouseCoopers' Health Research Institute acknowledges the following participants in the PwC Thought-Wiki programme and other contributors for their insight and knowledge:

Rachel Abbott, Pamela Ashbourne, Ryan Carlos, Caitlin Francis, Robert Janssen, Kira Levy, Gerland Laureijssen, Barbara Pitts, Christophe Reveillon, Hindy Shaman, Warren Skea, Frans Stark, Keith Stark, Magali van Ossel

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