

# Reforming Payments to Healthcare Providers: The Key to Slowing Healthcare Cost Growth While Improving Quality?

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**T**he seemingly intractable debate about how to slow the growth of health-care costs in the United States and elsewhere has traditionally boiled down to efforts to limit prices and quantities directly. In public health-care programs, the focus in the United States is often on tighter price regulation. For example, the Balanced Budget Act of 1997 achieved most of its savings by reducing the growth of regulated prices in Medicare for physicians, hospitals, and most other healthcare providers. The Affordable Care Act of 2010 also achieved most of its “scored” budgetary savings (which were used as a partial offset for the costs of coverage expansions) through reducing Medicare price growth (Elmendorf, 2010). An often-discussed alternative is to regulate the quantity of care by using available evidence on benefits, and potentially also costs, to restrict use of costly treatments through coverage restrictions or denials.

These blunt instruments of price limits and quantity regulation can affect specific types of costs in the short term. But over time, attempts to regulate prices have not been a solution to rising healthcare costs, either because the tight price regulations have been repealed or delayed due to provider opposition and concerns about access, or because changes in the mix of services provided overwhelmed any effect of lower prices for individual services. Other countries have more aggressively limited quantities based on technology evaluations of the value of care (for an overview of the British approach, see National Institute for Health Research

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webpage: (<http://www.hta.ac.uk/about/index.shtml>)). But global restrictions on access to treatments have not been acceptable to the American public, especially if they are based on cost, and they appear to be a source of increasing concern in other countries as well (for example, Timmins, 2010). Maybe more importantly, the blunt instruments of price and quantity regulation discourage flexibility needed for a type of health care innovation with great potential: the trend toward “personalized” medicine—that is, health care that does much more to take individual clinical and genetic characteristics, as well as preferences, explicitly into account to achieve better outcomes while avoiding low-value treatments.

The alternative approach to controlling costs is to support a healthcare system in which individual decisions of both the provider and patient are much better aligned with value. This paper focuses on a broad movement toward a fundamentally different way of paying healthcare providers. The approach reaches beyond the old dichotomies about whether healthcare providers are reimbursed on a fee-for-service or a “capitated” or per-person payment. Instead, these reforms seek to create direct linkages between payments to healthcare providers and measures of the quality and efficiency of care. For example, provider payment reforms in the Affordable Care Act of 2010 included pilot and nonpilot programs to pay more for coordination of care by primary care providers, for reducing preventable hospital readmissions, for reducing the overall costs and improving quality of common procedures and diagnoses, and for even more comprehensive methods for moving away from Medicare’s fee-for-service payment system while directly accounting for quality. Performance-based payments to healthcare providers have also been implemented and are expanding in the United Kingdom and many other countries (McDonald, White, and Marmor, 2009; Doran and Roland, 2010).

The foundation for the hope that these provider payment reforms can help “bend the curve” of healthcare costs without impairing quality—indeed, while significantly improving quality—is built on two basic facts about healthcare today.

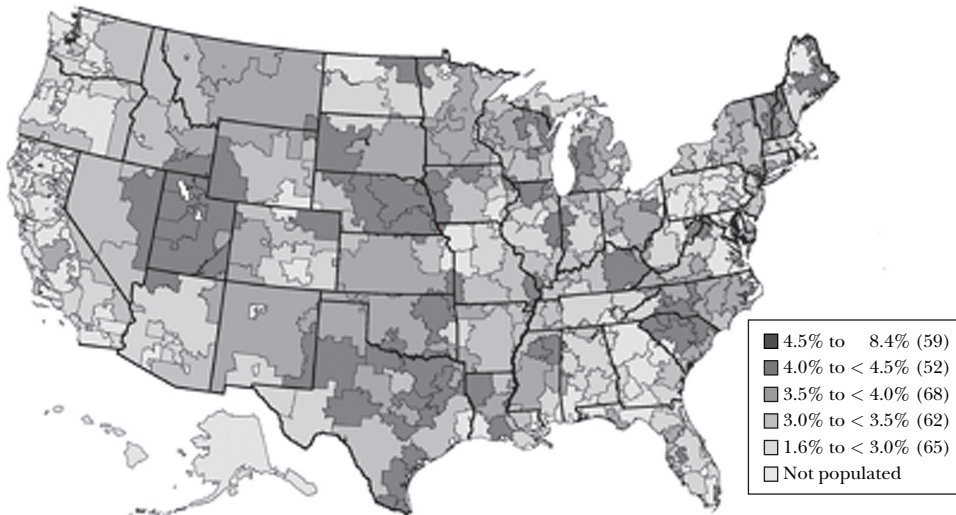
First, gaps are large between the quality of care actually observed and the quality of care that medical evidence suggests could be achieved, with substantial evidence of underuse of evidence-based preventive care, care for chronic diseases, and coordination of care (Institute of Medicine, 2001, 2006). For example, McGlynn et al. (2003) compared the care that people had recently received for 30 chronic conditions and for preventive care to a list of 439 indicators of the quality of care. They found that patients had received the evidence-based care described by the quality indicators only around 55 percent of the time. For example, in their analysis, almost half of patients who appear to be good candidates for colonoscopy to prevent advanced colon cancer and almost a third of those eligible for pneumococcal vaccines did not receive them. Even larger gaps exist in the treatment of chronic diseases, and better treatment of chronic diseases like diabetes and better coordination of health care can reduce the very costly use of hospital care (for examples, see Sidorov, Schull, Tomcavage, Girolami, Lawton, and Harris, 2002; Gomma, Morrow, and Muntendam, 2001; Munroe, Kunz, Dalmady-Israel, Potter,

and Schonfeld, 1997). Gaps are particularly large for patients whose care involves coordination across multiple providers or services not traditionally covered in fee-for-service payment systems (Shekelle, Rubenstein, Soloman, Roth, and Chang, 2004). This includes the one quarter of Medicare beneficiaries with five or more chronic conditions who account for 70 percent of Medicare costs, visit physicians on average 13 times in a year, and also are intensive users of other healthcare services (Anderson, 2005).

Second, large variations exist in the per capita cost of health care around the country, without any clear relationship to many measures of quality or important health outcomes. Researchers at Dartmouth have long documented variations in per-capita Medicare spending, from around \$4,000 per beneficiary in Minneapolis to close to twice that in Miami (Fisher, Bynum, and Skinner, 2009).<sup>1</sup> A less well-known fact is that real spending growth per Medicare beneficiary has varied from 2 to 5 percentage points per year among major metropolitan areas over long time periods (Fisher, Bynum, and Skinner, 2009), as shown in Figure 1, which suggests that addressing such variations might reduce the trendline of future cost growth. Further, much of the cost variation can be attributed to differences in treatment for what Wennberg, Brownlee, Fisher, Skinner, and Weinstein (2008) have called “preference-sensitive” conditions, where the medical evidence is not definitive and reasonable patients may differ in care choices, yet systematic variations at the regional level emerge and persist. Indeed, more intensive treatment patterns are in some cases associated with more complications and worse health outcomes (Temel et al., 2010; Goodman et al., 2010). Large variations in per-capita utilization, costs, and cost growth also appear to exist in non-Medicare populations, though generalizable data are hard to come by and price variations may be more important (Chernew, Sabik, Chandra, Gibson, and Newhouse, 2010; see also Pyenson, Iwasaki, Goldberg, and Fitch, 2010).

After an overview of payment reforms for healthcare providers and their welfare implications, this paper will discuss a range of empirical studies. These often small-scale studies suggest that provider payment reforms in conjunction with greater attention to improving measurements of care quality and outcomes can have a significant impact on quality of care and, in some cases, resource use and costs of care (see McKethan, Shepard, Kocot, Brennan, Morrison, and Nguyen, 2009, for a more comprehensive review). A pessimist would point out that the empirical evidence on the effect of provider payment reforms on costs, value of care, and especially on cost growth remains limited. An optimist would respond that the existing

<sup>1</sup> Preliminary analysis of data recently released by the Institute of Medicine (2011) (<http://iom.edu/Activities/HealthServices/GeographicVariation/Data-Resources.aspx>), accessed March 21, 2011) suggests that, compared to the Dartmouth analysis, area variations in Medicare costs may be somewhat different and less extensive when additional measures of cost and patient health status are included. However, as a news article by Rau (2011) describes, substantial unexplained variation remains—for example in 2008, after adjustment, Medicare spent around \$9,500 per beneficiary in Monroe, Louisiana, in comparison to around \$5,000 in Honolulu, Hawaii. Moreover, large variations exist across providers within regions.

*Figure 1***Annual Growth in per-Beneficiary Medicare Reimbursements, 1992 to 2006***(by hospital referral region)*

Source: Map 1, titled “Annual Growth in Medicare Reimbursements, 1992 to 2006” from Fisher, Bynum, and Skinner (2009).

evidence suggests that when multiple provider payment reforms are implemented appropriately in the right environment, they can make a big difference.

Current payment systems do not appear to be sustainable from either a fiscal or political perspective. Consequently, provider payment reforms should be implemented, evaluated, and expanded much more quickly and comprehensively. But changing payment rules in the Medicare program is a slow and inexact process, and changes in payments by private payers are difficult to implement on a significant scale. The obstacles to provider payment reform are magnified by many features of the regulatory environment for health care, and especially by incentives for consumers to choose coverage and use their benefits in ways that do not align with high-quality, efficient care. Thus, the paper also discusses some changes in regulation, antitrust laws, and other areas that could help to smooth this transition. Most importantly, these reforms need to be reinforced if not driven by changes in health-care markets, including incentives for consumers to be sensitive to costs and active competition in the provision of healthcare services and technologies.

Ultimately, one can imagine a situation in which cost-sensitive consumers in reasonably competitive health insurance markets have an option to choose lower-premium health insurance plans that deliver greater value, which will provide much more pressure for shifts to more-effective provider payment methods. The goal is to create an environment for healthcare decision making that is much more aligned

with avoiding unnecessary costs while improving health. Provider payment reforms are likely to be a necessary part of achieving this goal, while also being politically more acceptable than blunt policy proposals like requiring reductions in prices, reductions in benefits, or restrictions on covered services (for example, Baker, Daschle, and Dole, 2009; Antos et al., 2009, 2010).

## **Overview of Provider Payment Reforms and Their Welfare Implications**

The traditional “extremes” of provider payment in health care are fee-for-service payments at one end, with payments related to the volume and intensity of specific medical services, and global or capitated payments at the other, with payments fixed prospectively per patient regardless of the intensity or cost of services provided. An extensive theoretical and empirical literature in health economics has described how, given the potential for variation in quality of health services, competition and other factors may interact with these various payment schemes to influence quality (for example, McClellan, 1997; Cebul, Rebitzer, Taylor, and Votruba, 2008; Pauly 2000; Garber and Skinner, 2008).

Because of the difficulty of empirical analysis of dynamic effects of payment policies on spending growth, most of these studies are static, examining relatively short-term effects over several years. Obviously, however, longer-term responses of medical technology and medical practices to payment incentives are much more important from the standpoint of spending growth. Limited evidence suggests that changes in payment incentives could have greater long-term consequences than a static analysis would suggest. For example, Finkelstein (2007) found that the large increase in fee-for-service reimbursement associated with the implementation of Medicare in 1965—which had different effects across regions of the country because of differences in baseline coverage rates—led to much larger effects on technology use, medical practices, and costs over time. Thus, as healthcare providers make investments and longer-term practice decisions, it is possible that these hard-to-study changes in technology and medical innovation are considerably larger in magnitude (though similar in direction) than short-term effects of payment reforms.

Patient care in fee-for-service systems reflects multiple distinct payments to physicians, hospitals, and other healthcare facilities, laboratories, pharmacies, and providers. Fee-for-service payments do not penalize providers for choosing a higher intensity of treatment and so may encourage higher-quality care in some cases. But fee-for-service payments can also result in inefficient overprovision of services and in underprovision of services that are not reimbursed or are poorly reimbursed. In a fragmented system of healthcare providers, overprovision or underprovision of care may be related to problems of coordinating care across multiple providers in ways that can improve quality and reduce cost. Conversely, in a competitive environment,

providers who receive fixed payments would be expected to maximize quality (or services valued by patients) subject to the fixed-payment constraint; however, in the absence of effective competition, fixed payments could lead to the underprovision of quality, particularly for high-cost patients.

Traditional provider payment reform debates in the U.S. context have focused on the extent to which provider payment systems should be shifted from fee-for-service to capitated or “bundled” payments. However, more recent reforms in provider payment systems, both in the United States and elsewhere, have increasingly considered explicit steps to tie some portion of payments to quality of care as well. The goal has been to encourage higher quality—and more generally, to build confidence that valuable care will not be stinted—without the potential cost-increasing features of fee-for-service payments.

Economists will recognize this problem of designing appropriate insurance reimbursement for healthcare providers as an especially knotty principal-agent problem. The economic objective of provider payment reforms is to give healthcare providers as a group an incentive to offer the right care for each patient—care that is well-coordinated and efficient for each individual, which means both giving difficult cases the extra resources required while conserving resources when they would not be well-used. But measuring the quality of health care for heterogeneous patients and a wide range of interlinked services is inherently very difficult. The principal-agent literature emphasizes that measurement and incentives are complements: that is, when measurement can capture the desired outcome fully, then incentives can be strong. Conversely, if measurement captures the desired outcome only weakly, the incentives should be weaker. Too-weak incentives mean inefficient and (in a third-party payment system) likely very costly care. But if high-powered incentives are linked to measures that do not fully capture the desired quantity and quality of health care for each patient, the incentives can lead both to inefficient overprovision and underprovision of certain kinds of care.

These tradeoffs are complex in health care both because of the increasing complexity of care due to both heterogeneous patients and an increasing array of medical options for treating them. For example, imagine Medicare payment incentives that do more to encourage care coordination across multiple providers and settings than Medicare’s fee-for-service payments for particular providers do today. Such incentives might support health information technology use, nurse coordinators, cross-provider transition systems, and other supportive services that might offer great benefits for complex patients. However, if Medicare simply adds more fee-for-service payments for these types of services, they may be poorly targeted and would likely increase Medicare spending. On the other hand, tying these payments to measurable standards of coordination, so-called evidence-based “process” measures, could create pressures to skimp on quality along dimensions that cannot readily be measured. Process measures could also complicate treatment for patients with unmeasured characteristics that should lead to different processes

of care. Payments might also be tied to outcomes such as reduced complication rates that should be the result of effective coordination. But patients who are more severely ill in terms of unmeasured characteristics may have worse outcomes for reasons unrelated to quality of care. If coordination is easier to provide or fewer complications related to poor coordination occur for patients with average-or-below levels of illness, then there will be incentives to avoid serving severely ill patients or to pass their care along to others (Werner and Asch, 2005).

Illustrating the tradeoffs in strengthening incentives related to quality, in Dranove, Kessler, McClellan, and Satterthwaite (2003), my coauthors and I found that public reporting of quality measures for cardiac procedures in Pennsylvania and New York led to offsetting welfare effects: a shift of more cases to higher-quality hospitals, but also reduced access to procedures for the most severely ill patients as well as more treatment of lower-risk patients who would be expected to get fewer health benefits.

In the following sections, I describe a range of provider payment reforms that are occurring in the United States and around the world, along with some of the related empirical evidence. I will start with relatively specific, limited linkages between provider payments and measures of quality; specifically, I focus on payments linked to reporting on just some measures of quality with no other aspects of payment and quality altered. I then move toward stronger linkages, like paying more for certain measures of performance for patients with certain diagnoses; combining bundled payments for certain diagnoses with adjustments for quality; and “accountable care” organizations, which take at least incremental steps toward a flat capitated payment for a population of patients and receive a bonus for achieving overall improvements in spending trends with payments tied to improvements in quality of care for the population.

As the illustrations and evidence show, provider payment reform is a work in progress. As the capacity to measure healthcare processes and outcomes continues to expand rapidly, in conjunction with at least some growing confidence that we are measuring the right things, the linkages between provider payments and measured quality are likely to strengthen.

## **Pay for Reporting**

“Pay for reporting” involves additional payments tied to providing information related to quality of care. For example, physicians in Medicare get an additional 1 to 1.5 percent payment for reporting to the government on a set of specialty-specific quality measures mostly related to using evidence-based processes of care. Similarly, hospitals get 2 percent higher annual updates to their Medicare payments if they participate in quality measures based on abstracts from medical charts. Such payments have had a substantial effect: virtually all U.S. hospitals now participate in Medicare quality reporting, and as a result, more healthcare performance measures are becoming available. Most reported measures today focus on the prevalence of

certain processes of care that, based on empirical studies, are thought to be good predictors of better outcomes. Direct measures of both health outcomes and costs have been both difficult to collect because of the need for longer-term data linkages and because connections to outcomes and costs are subject to potentially confounding factors and bias; however, their use is increasing with improved data systems and richer data on patient covariates.

There is some evidence that providing comparative quality information to healthcare providers leads to improvements in the measured dimensions of quality (Hibbard, Stockard, and Tusler, 2003). Studies have also found that public reporting on quality leads to improvement in the measured dimensions (for example, Premier, 2007; Schoenbaum and Holmgren, 2006). However, as noted earlier, reporting on quality information may affect care in ways that both increase and reduce quality—though the effect may occur more through provider responses than changes in consumer demand (Marshall, Shekelle, Leatherman, and Brook, 2000).

There is little evidence that quality reporting alone could improve healthcare quality and restrain costs substantially (Dranove and Jin, 2010). However, obtaining measurements on elements of quality of care from the “pay for reporting” approach provides a foundation for potentially more powerful payment reforms that link payment to achieving cost reduction, as described below. Consistent reporting of meaningful quality measures is also essential for many consumer reforms: without meaningful and comparable quality information on healthcare providers and plans, consumers will continue to have difficulty in making effective choices. Consequently, incentives or requirements to report on quality are a prerequisite for all of the reforms that follow, and mechanisms for more accurate, timely, and comprehensive performance measurement are a key area for research.

## **Pay for Performance**

Many health insurance plans now include some “pay for performance” elements in their reimbursement systems, and both public and private plans are in the process of implementing more extensive steps. A number of studies have evaluated these reforms, with suggestive but not consistent evidence of an effect on costs (reviews include McKethan, Shepard, Kocot, Brennan, Morrison, and Nguyen, 2009; Stanford–University of California San Francisco Evidence-based Practice Center, 2004).

For example, in 2003, a Medicare demonstration program involving a system of nonprofit hospitals introduced additional payments of up to 2 percent tied to performance on a set of 33 clinical measures for five common chronic diseases, including the percentage of patients with heart attacks who received aspirin promptly, the percentage of patients with pneumonia who were assessed for oxygen status, and other “process” measures. The demonstration showed significant improvements in most measured aspects of performance after the pay-for-performance program was

implemented (Premier, 2007; Lindenauer et al., 2007). However, trend comparisons with hospitals that reported on quality without a pay-for-performance program showed that most of this effect was associated with underlying time trends and not pay-for-performance per se. Moreover, while the payment reform appeared to reduce some hospital complications that could be costly, an effect on overall patient costs was hard to detect, especially after subtracting the costs of the incentive payments (Rosenthal, Frank, Li, and Epstein, 2005).

Another type of paying for performance involves a “medical home,” an approach in which primary care physicians receive additional payments and support for coordinating care for patients—for example, for setting up electronic systems to track the risk factors and care of their patients with common chronic illnesses—as well as for spending more time in patient visits. The goal is to improve care for chronic diseases and prevent costly complications. Many studies of medical homes show significant impacts on quality of care. Some studies of medical home payment reforms have also found significant effects on cost (Reid et al. 2010), while other carefully designed studies have not (Jaen et al., 2010).

The economic stimulus legislation of 2009 added another type of performance payment for physicians and hospitals—payments for the adoption and “meaningful use” of interoperable health information technology. Such technology could be extremely helpful in promoting more effective care for patients, especially those with complex conditions, while reducing overall costs (Giroi, Meili, and Scoville, 2005). For example, information systems can help doctors identify and track all of their patients who could benefit from particular medical interventions (Friedberg, Coltin, Safran, Dresser, Zaslavsky, and Schneider, 2009). Health information technology is also an essential foundation for more effective coordination of care, as a mechanism to share timely and accurate information across providers. However, in some initiatives to promote health information technology use, studies have found little net effect on quality and even adverse impacts on costs (Black et al., 2011).

Several factors may explain the absence of clear effects of these “pay for performance” reforms on health and costs. First, improvements in particular aspects of care may not translate into overall health improvements, or they may be offset by reduced quality of care or higher costs in dimensions that are not measured well. Second, many of these reforms were implemented only by particular payers (like Medicare or a private insurance plan), and so the overall changes in incentives for providers who receive income from a variety of sources may have been relatively modest. Third, because the pay-for-performance reforms generally affected only some providers of care, effects on overall utilization and costs may have been mitigated. For example, medical home payments support better coordination by primary care providers, but do not directly support better care by specialists or create accountability for lowering overall costs.

New versions of pay-for-performance initiatives seek to address some of these limitations. To make payment changes less incremental and to assure that reforms implemented by different health insurers reinforce each other, multipayer reforms

based on consistent performance measures are becoming more common. For example, using the broader authority and financial support of the 2010 Affordable Care Act, private health plans, Medicaid and state programs, and Medicare are participating in medical home pilots that use consistent measures of performance and payments across these multiple payers (Centers for Medicare and Medicaid Services, 2010a). To address the limitations of particular quality measures for driving systemwide improvements in efficiency, these reforms are also being linked more comprehensively to the other payment reforms described next.

## **Bundled Payments**

Going beyond providing incentives for improving particular aspects of care or coordination, a number of efforts are underway that combine payments more broadly across multiple providers and settings with links to measures of quality. The bundled payments offer a direct incentive to reduce costs across the services in the bundle, while the linkages to quality measures try to assure that the cost reductions occur through steps that improve overall quality—or at least do not harm it.

Bundled payments are not new. Over the past 25 years, most of Medicare's payment systems have moved in the direction of more bundled payments for services. Most notably, this included the Prospective Payment System introduced for hospital payment in 1983, which shifted from payments based on the kinds of services provided during a hospital stay (for example, the number of hospital days) to a prospective amount based on a patient's diagnoses and major procedures performed during the hospital stay, using "diagnosis-related group" payments. Since then, Medicare has moved to bundled per diem payments for post-acute care, bundled 60-day payments for home care, and (most recently) bundled payments for end-stage renal disease care. While economic studies of most of these payment reforms are limited, substantial research on the earlier diagnosis-related group payment system showed, as expected, a substantial effect on length of stay and costs per hospitalization, as well as movement of many services from the hospital setting to the outpatient and ambulatory settings (Coulam and Gaumer, 1991; Davis and Rhodes, 1988; Rosenberg and Browne, 2002). Whether these reductions in intensity and costs within the bundles resulted in lower overall spending growth is less clear, but their impact on costs within the "silo" of bundled care and their potential for lowering overall costs is unquestionably a key reason for their more widespread use.

Most of the earlier efforts toward bundled payments did not include performance measures as a major focus. Studies of these reforms—especially the hospital payment reforms—have generally not found adverse outcome consequences from reducing the intensity of care during a stay (Cutler, 1995). But the concerns about adverse outcome consequences are a reason why broader bundling efforts are increasingly tied to quality measures that go beyond a particular provider or setting of care. For example, in the case of diabetes, some quality measures might

include how well-controlled a patient's blood sugar was, the rate of hospitalization of patients with potentially preventable diabetic complications, and patients' assessment of their overall experience with care. Such measurements are generally not supported by the traditional, provider-specific payment systems.

The development of broader "bundles" for payment across multiple providers is a very active and challenging issue in payment reform. The opportunity for improving quality while lowering costs could be substantial. For example, 18 percent of Medicare beneficiaries are readmitted to the hospital within 30 days of discharge, mostly with complications that were potentially preventable, which may be in part the result of a lack of payment incentives for hospitals, post-acute care providers, and physicians to coordinate care across the transition in settings (Medicare Payment Advisory Commission, 2008). The key tradeoff is how to, on the one side, provide incentives to coordinate care and to improve efficiency over a broader range of services for a patient, while on the other side not create too much pressure to reduce the provision of costly but valuable treatments or to avoid complex, high-risk patients. Reflecting this tradeoff, Medicare generally continues to pay for outpatient hospital procedures and visits, drugs administered in medical offices, physician visits and treatments, lab services, and imaging procedures on a purely fee-for-service basis using prices regulated by complex statutory formulas.

Recent "episode-based" payment reforms in private insurance and in Medicare pilot programs are seeking to bring a more comprehensive set of services related to a condition or procedure into an overall bundled payment, accompanied by measurement of quality of care for the overall episode. For example, the Prometheus Project is a collaboration of employers, health plans, and providers that has sought to define episodes of care for common procedures like hip or knee replacement and common chronic diseases like diabetes (de Brantes, Rosenthal, and Painter, 2009). Instead of paying for individual services or a variety of bundles for each provider, the project has developed an overall shared fee for all of the services for the procedure or disease. Prometheus has sought to use detailed expert evaluations of patterns of care and occurrences of "potentially avoidable complications" to set fixed, risk-adjusted amounts for episodes-of-care payments for physicians, hospitals, and all other providers involved.

Instead of relying on detailed expert definitions of episodes, episode-based payment reforms can also be implemented based on competitive bidding by providers. For example, in the 1990s, Medicare implemented a competitive bidding program in which hospitals and physicians could offer a comprehensive "package" price for providing coronary bypass surgery. The healthcare providers were also required to report on quality measures like patient mortality and postoperative complication rates.

Episode-based reforms clearly lead to more explicit coordination efforts among participating providers. But evidence on cost and quality impact is still very limited, in part because data from actual implementation is limited (Hussey, Eibner, Riggely, and McGlynn, 2009). Results of the Medicare competitive bidding program

for bypass surgery showed significant reductions in both overall costs and complications (Cromwell, Dayhoff, and Thoumaian, 1997), at least within the surgeries performed (the possible effect on the likelihood of patients undergoing bypass surgery, especially those with less-severe illness and thus lower expected costs, has not been evaluated). This kind of evidence is consistent with the idea that episode-based payment reforms can potentially pair higher incentives with better quality measurement to reduce costs while improving quality.

While bundled payments using quality measures may achieve higher quality and lower costs within the bundle, the effect on overall healthcare costs and health outcomes may be harder to determine. Defining an “episode” requires making some not-so-simple judgments about where care for the condition in question ends and where care for everything else begins. For example, common complications and associations of diabetes include heart and circulatory problems, neurologic problems, and vision issues. Screening tests for these complications might be bundled with diabetes care. But what about care for these conditions when they occur in conjunction with diabetes, like the need for surgery—itself an episode—when circulatory disease reaches an advanced stage? When one of these conditions does occur, its treatment may cost far more than all of the other diabetes-related treatments combined, so that small groups of providers may not be willing to bear the risk. Further, the most efficient approach to conditions that require surgeries or hospitalizations for major illnesses like heart attacks may be to prevent a substantial share of them in the first place.

The slow uptake of broad episode-based payments highlights their technical and political challenges—in defining episodes and performance measures, in negotiating new kinds of arrangements with multiple providers, and in providers overcoming the coordination costs of working together. For example, under pressure from providers, Congress specifically prohibited the use of competitive bidding for episodes of care in the Medicare program. But with better data systems and rising costs, more use of bundling is likely coming. Medicare is charged with implementing episode bundles for an initial set of conditions in 2013 (likely with regulated prices rather than competitive bidding, which seems to face less opposition from providers), and Medicare will also begin imposing financial penalties on hospitals with high readmission rates.

### **“Accountable Care” and Capitation**

The complexities of defining bundles of care for episode-based payments can be sidestepped by bundling payment for all provider services together. Capitated or fixed-budget payments have long been common in publicly-provided healthcare systems, like the National Health Service in the United Kingdom and the U.S. Veterans Administration. For privately-delivered care, these globally prospective arrangements mostly exist at the level of integrated provider groups, particularly health

maintenance organizations, that also serve as insurers. Such health maintenance organizations may hire salaried healthcare providers who only see their patients, as in the Kaiser Permanente plan in California. More common are arrangements, such as those for many preferred provider organizations, in which an insurance plan negotiates fixed payments to providers for some services, for example primary care, and discounted fee-for-service rates for other physician services and procedures.

In the past, these arrangements have often included reporting on a limited set of population-oriented performance measures, such as use of preventive services and some strongly evidence-based treatments for common chronic diseases (National Committee on Quality Assurance, 2010). Many plans also have payment incentives to promote coordination of care and efficiency across their providers in noncapitated payment systems, and in some cases—for example, in some large integrated practices in California and Minnesota—these incentives have extended to placing the integrated providers at some financial risk for overall patient costs, not just the costs of their own services (Hinz, 2010; Rubin and Davenport, 2010). In recent years, Medicare has similarly tried out reforms that enable providers to “share savings” that are achieved in overall per-capita spending.

These developments are leading to what has come to be called “accountable care organizations.” Key features of groups of providers that act as accountable care organizations include: providers taking on some level of accountability for overall costs and quality for an identifiable population of patients; providers and/or the insurers involved having the technical capacity to produce measures of overall costs of care and quality of care that can be used for this accountability; and an ability of the organization to distribute incentive payments to providers within it. The intent is to provide financial incentives for providers to work together to deliver better care at a lower cost at the person level in a manner that is not possible through fee-for-service or bundled payments (McClellan, McKethan, Lewis, Roski, and Fisher, 2010). Due to variability in overall cost measures and population-level quality measures for smaller groups of providers, most initial accountable care organizations have been multispecialty groups, associations of independent providers (independent practice associations), or regional collaborations that include at least 5,000 to 15,000 patients.

An illustration and some evidence on accountable-care reforms comes from the Physician Group Practice demonstration in Medicare, which was implemented in 2005 (Centers for Medicare and Medicaid Services, 2010c). This demonstration program involved ten provider organizations, including some integrated multispecialty groups with and without affiliated hospitals, and an “independent practice association” of physicians supported by information systems and other care-coordination activities. The providers in this demonstration continued to receive their traditional Medicare payments, largely volume- and intensity-based. But in addition, the organizations reported on a set of performance measures for the population of patients who received primary care from their physicians, including preventive-care measures and a set of quality measures related to common chronic diseases in Medicare (for

example, potentially preventable hospitalization rates for patients with diabetes). At the same time, Medicare tracked the overall costs for these patients, including not only physician costs but costs for hospitalizations, post-acute care, procedures, and so on (more specifically, Medicare tracked all costs from Part A and Part B of the program). The participating provider organizations received additional “shared savings” payments if they met benchmarks for improving quality and reducing overall cost trends by at least 2 percentage points per year relative to a “control” population of Medicare beneficiaries (Iglehart, 2011).

The demonstration program sought to provide a path to financial support that could be flexibly applied by providers for steps like information technology adoption, patient education, care coordination services, and many other activities that are not included in traditional fee-for-service reimbursement systems. Providers would not receive direct payment for these additional services—such payments would be poorly targeted and potentially very costly—but they could recover the costs of such activities to the extent that they were able to reduce overall cost trends without adversely affecting quality.

These “shared-savings” payment reforms amount to setting up a second track for reimbursement, where the first track is traditional payments based on the volume and intensity of services produced (or whatever existing payment system is in place) and the second track is based on overall cost reductions with improvements in quality. Unlike fixed premiums operating at the level of insurance plans, these incentives place overall financial and population health accountability directly on providers. As provider organizations and payers become more experienced and adept with accountable-care payments, the weight on the “traditional” track can shift down while the weight on the “accountability” track increases—that is, payments may progress from shared savings to two-sided financial risk and partial capitation—all linked to improvements in population-level performance measures.<sup>2</sup>

Evidence on these recent accountable-care reforms is suggestive but limited. In the Physician Group Practice demonstration, for example, while almost all groups achieved significant improvements in clinical care and most reduced costs relative to trends, five of the ten achieved cost reductions exceeding the benchmark of 2 percentage points per year below the control trend in total expenditures and thus qualified for “shared savings” (Centers for Medicare and Medicaid Services, 2010c). Most of the achieved reductions appeared to occur on the ambulatory/outpatient side of care, and groups that did not have a large base of inpatient care tended to achieve greater savings. Some of the apparent savings relative to control

<sup>2</sup> While fee-for-service payments are generally viewed as not placing providers at financial risk, it is important to remember that many services that involve significant resource use, such as care coordination, e-mails, and other activities, are not reimbursed in most fee-for-service plans. Thus, limited-risk incentives for accountable care organizations might be regarded as a shift in the kind of risk of unreimbursed services faced by providers. Further, contracts for accountable care organizations may limit financial risk to types more likely to be under the control of providers—for example, by removing “outlier” cases.

fee-for-service populations may also be attributable to more complete or extensive reporting of patient diagnoses, since such diagnoses were used to “risk adjust” quality and cost measures. Indeed, more complete diagnosis reporting has been a common characteristic every time that Medicare has moved toward more bundled, risk-adjusted payments. Another indication of success may be that all ten groups hope to continue as accountable care organizations in Medicare, and many are aiming to move toward two-sided risk or partial capitation contracts that they believe would give them more flexibility to redesign care delivery to increase efficiency.

Reforms in the spirit of accountable care organizations are also being implemented at the regional level in other Medicare demonstrations (Wade, 2009; Harrington, 2004) and in many private plans with some anecdotal successes (Dunn, 2010; Carilion Clinic Newsroom, 2009; Slitt and Lewis, 2010; Slitt and Pope, 2010; Chernew, Mechanic, Landon, and Safran, 2011), but few quantitative results are available. In addition, the Centers for Medicare and Medicaid Services has proposed implementing accountable care organizations on a larger scale in Medicare beginning in 2012 (Centers for Medicare and Medicaid Services, 2011; Berwick, 2011).

## **Challenges to Effective Provider Payment Reform**

The hope for provider payment reforms is great because they seem to hold promise for bending the healthcare cost curve without having to reduce benefits or coverage, while improving quality of care at the same time. They are being implemented by private payers and states, and they are key features of most of the recent Medicare pilot programs. In contrast to the intense political and judicial controversy around such strategies as Medicaid coverage expansions or requirements to buy insurance (Hudson, 2010), many provider payment reforms have notable bipartisan support. For example, the Democratic-backed Affordable Care Act of 2010 included a number of provider payment reforms. Legislation sponsored by Senator Tom Coburn and other Republicans (2009) includes ideas for accountable-care payment reforms. Republican Congressman Paul Ryan’s legislative proposals also envision more efforts to improve reporting on quality of care and to use that information to reform payments to providers, with support for developing consistent and comparable methods (Congressional Budget Office, 2010a). Substantial provider payment reforms were a core element of recently proposed frameworks to bend the curve developed by a broad range of health economists through the Brookings Institution (Antos et al., 2009, 2010). They were also included in a proposal developed by former Republican and Democratic Majority Leaders of the U.S. Senate (Baker, Daschle, and Dole, 2009).

Yet at this stage, it remains challenging to draw general conclusions on how much these provider payment reforms could affect the growth of healthcare costs. Limitations stem from the incremental and piecemeal nature of many reforms to date, as well as the magnitude and complexity of achieving meaningful systemwide

effects. However, the evidence does suggest that individual reforms that are tied to accountability for limiting costs as well as improving quality can significantly affect both. For example, if the 1 to 2 percent annual cost effect achieved in many of the Medicare Physician Group Practice demonstration programs could be expanded and sustained over time, the effect on Medicare's financial outlook would be substantial. Many of the other studies of payment reforms in various healthcare settings described here show that cost effects can be substantial.

What could enhance the effect of provider payment reforms? Some obstacles to larger responses include the difficulty of transforming care delivery, which could be addressed through better transition planning and support and overcoming conflicting healthcare policies and politics—and this requires a view of healthcare policy reform that is broader than provider payment incentives.

As part of this approach, providers and payers should continue to move toward a more coherent and comprehensive view of payment reforms. Over 80 percent of healthcare providers do not currently practice in integrated organizations that combine groups of multispecialty physicians and hospitals (Crosson, 2009; Shields, Patel, Manning, and Sacks, 2010). As a result, substantial leadership time, effort, and capital are required for most providers to implement the kinds of healthcare delivery reforms that could achieve systematic effects on quality and cost. With the wide variety of individual payment reforms being implemented, providers may simultaneously face a wide range of pay for performance and options for bundled or accountable payments from multiple payers all at the same time, each of which may individually be worth trying, but can come across as “throwing spaghetti up against the wall to see what sticks.”

Instead, some providers and payers are taking a more systematic view of payment reforms, as a set of individually incremental reforms that can add up to a much more comprehensive impact on medical practice. For example, although “pay for reporting” and “pay for performance” reforms appear to have only limited effects individually, they could be more directly aligned with the episode-based and accountable-care payment reforms. Some payers and providers are implementing “medical home” payment reforms for primary care providers in conjunction with accountable-care reforms, with the goal of the giving providers the up-front payments needed to support changes in care coordination but then requiring evidence that these practice changes actually achieve measurable, population-level cost and quality improvements (Chernew, Mechanic, Landon, and Safran, 2011; Page 2011). Similarly, instead of just paying more for “process of care” improvements by individual physicians and hospitals, or just for buying information technology equipment, the recent health information technology “meaningful use” payment reform regulation suggests that providers will only receive additional payments in the future if they demonstrate they are using the information technology to achieve more systematic measurable improvements in patient care, including in patient health outcomes (Blumenthal and Tavenner, 2010; U.S. Department of Health and Human Services, 2010). In all of these cases, the inclusion of consistent quality measures that are

supported by many healthcare providers across multiple reforms has helped provide more confidence, at least initially, that more aggressive bundling and other steps away from fee-for-service will not lead to reductions in quality.

In addition to a more comprehensive approach toward implementing provider payment reforms, a range of other steps could also enhance their impact. First, one barrier to moving away from fee-for-service payments is gaps in the accuracy and completeness of the quality and cost performance measures themselves. More comprehensive and consistent measures could be derived from the increasingly sophisticated data systems used in healthcare delivery and coordination. For example, coordination of care across providers and identification of gaps in quality at the patient level and effective steps to address them are likely to require patient registries to enable different providers involved in a patient's care to get a comprehensive picture. In turn, these registries can be used by the providers to produce more meaningful measures of quality and cost, as a basis for contracts that reinforce their investments to coordinate care (Roski and McClellan, 2011). Similarly, with better data on patient health, more sophisticated "risk adjustment" for differences in health status is also increasingly feasible.

Second, the many public and private reform initiatives that are underway often use measures of performance that have not been well aligned. As a result, the impact of any single reform effort is attenuated; even very large health plans account for only a fraction of any provider's revenue, so any idiosyncratic performance measures can produce only limited effects on provider revenues. Just as all healthcare payers today rely on standard codes for thousands of procedures and diagnoses in their fee-for-service payments, consistent methods of measuring quality and cost performance would enable more accurate measurement and thus a greater ability for providers and payers to compete on quality and cost. Such consistent measures are also a necessary feature of reforms that seek to increase consumer pressures for greater efficiency, as described below.

Third, stemming from the incentives created by fee-for-service payments, many healthcare regulatory policies are designed based on the presumption that coordination among providers will lead to higher prices and lower quality. So-called "Stark Laws" and anti-kickback rules restrict financial arrangements among providers. For example, these rules restrict shared payments among hospitals and post-acute providers in conjunction with selective referrals for care and payments from hospitals to physicians for referring patients or using less costly treatments. While such restrictions may be understandable in a fee-for-service payment system, they should be modified to support coordination in payment systems where providers have incentives for cost savings, and Medicare has waived them in certain demonstration programs (for example, U.S. Department of Health and Human Services, 2002).

Fourth, antitrust policies designed to prevent the exercise of market power also have important interactions with provider payment reforms. Recent substantial consolidation in health care (for example, see Medical Group Management Association, 2010) has heightened these concerns (Leibenluft, 2011; Berenson,

Ginsburg, and Kemper, 2010). Antitrust officials at the U.S. Department of Justice and the Federal Trade Commission have long offered guidance that they will support efforts that reduce care fragmentation and inefficiency (U.S. Department of Justice, 1996), and they have updated that guidance for recent efforts to promote better-coordinated care through payment reforms (FTC/DOJ, 2011). This guidance has also emphasized the importance of having a meaningful plan for changing the delivery of care, for measuring quality and cost impacts, and for taking action on participating providers who are not improving. In principle, accountable-care and other payment reforms should lead to better, more consistent measures for determining whether a care coordination effort really is leading to lower costs.

## **Complementary Reforms**

The trend toward greater accountability for quality and efficiency in healthcare provider payments seems likely to continue, if not accelerate. The optimal combination of fee-for-service, bundled, and capitated payments is unclear. Mixed payment systems including some fee-for-service payments and some performance-based components are likely to become more common. Especially if policymakers can promote some consistency in measurement methods across payers and healthcare organizations, the evidence on the impact of payment reforms should also become much stronger in the coming years, speeding the evolution of payment systems. However, reforms in provider payment to address issues of healthcare costs and quality, without complementary changes in other healthcare policies, are no more likely to succeed than rowing with one oar. As other papers in this symposium note, provider incentives created by liability laws and patient incentives created by insurance choice mechanisms and insurance design are not well-aligned with a focus on better results and lower costs.

As an example of how reforms in consumer incentives can overcome political and policy inertia to move toward insurance coverage that features more aggressive and effective payment reforms, consider the effect of consumer choice on prescribing decisions and drug costs in the Medicare Part D program. The Medicare Modernization Act of 2003 included a standard benefit design with traditional insurance features for drugs—a deductible, a 25 percent coinsurance rate, and a catastrophic limit—with the famous “donut hole” gap in coverage in the middle. But the program gave beneficiaries fixed subsidies toward the purchase of coverage (with larger subsidies for low-income beneficiaries and, because of risk adjustment, effectively larger subsidies for beneficiaries with costly chronic diseases and high expected costs) and allowed considerable flexibility in competing benefit design, so long as the choices were actuarially equivalent to the standard design (Bach and McClellan, 2005). While many beneficiaries complained about the confusion of choosing among a large number of competing plans, the vast majority chose a different benefit design than envisioned in the law. The most popular plans have

a tiered benefit structure, in which beneficiaries pay relatively little of the cost of generic drugs and of “preferred” brand-name drugs, where the drug plan has negotiated lower prices with the manufacturer, but pay a much larger part of the difference in actual drug cost if they choose a more costly “non-preferred” drug. In conjunction with these likely demand-driven benefit shifts, drug use among seniors has shifted heavily toward generic and lower-cost preferred drugs, contributing to costs of the Part D program turning out to be more than 40 percent lower than had been projected in 2006 (Centers for Medicare and Medicaid Services, 2010d; Congressional Budget Office, 2010b). Although consumer decisions are often not perfect (at least based on observable diagnoses and drug costs), Part D’s changes to patient incentives have had more significant effects on prescribing practices than individual provider payment reforms had been able to achieve, and they have improved important measures of quality of care as well (Duggan and Scott Morton, 2010; Afendulis, He, Zaslavsky, and Chernew, forthcoming; Heiss, McFadden, and Winter, 2009).

Stronger incentives for consumers to choose less-costly insurance plans, coupled with reliable evidence on their quality and cost, may lead to greater uptake of benefit designs that, like tiered drug coverage, provide much larger financial rewards to consumers who choose more efficient care. In turn, this could create much stronger pressure and a more favorable environment for more meaningful provider payment reforms to take hold. For example, some health plans are implementing provider payment reforms in conjunction with significant discounts to patients who use low-cost providers with high measured quality, seeking to drive more patients to more efficient care (Campagna, 2010; Paulus, Davis, and Steele, 2008). Improvements in measurement and evidence on performance should help to overcome concerns about such provider-side incentives leading to the underprovision of quality. Indeed, such privately led, competitively based provider payment reforms are likely to be essential to the success of healthcare reforms that focus on using more effective consumer choice to reduce spending growth.

The technical capacity, opportunities, and cost pressures for implementing provider payment reforms in health care will continue to rise. Given the nation’s fiscal outlook, much more aggressive cost control steps in the coming years are a near certainty. The big question is whether those reforms will continue to be blunt instruments like price controls and broad limits on access and coverage, or whether a combination of reforms, including provider payment reforms, can create a much more powerful alignment of incentives for individual decisions by providers and consumers with respect to quality, efficiency, and value. The future of medical innovation, and possibly the nation’s long-term fiscal well-being, rides on the answer.

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