Policymakers across the country are currently engaged in discussions on how to improve the way that health care providers are paid for the services they deliver. These discussions involve how to shift payment systems away from traditional fee for services and toward rewarding providers that achieve excellent outcomes and deliver value to their patients. While both private and public payers are implementing significant changes, much of the focus of payment reform is on pilot programs and demonstrations in the Affordable Care Act (ACA), such as accountable care organizations (ACOs), value-based purchasing, and bundled payments.

Bundled payments, which focus on all the procedures involved in a single medical episode rather than considering these items individually, are now receiving serious attention as a way to improve quality at lower costs under the new Medicare Bundled Payment for Care Program, authorized by the ACA. In contrast, many other payers are moving forward with payment reform strategies, such as ACOs and value-based purchasing, which emphasize provider performance at the population level.

This paper takes a close look at these two broad types of payment strategies, including, their research foundations, how they have been implemented in the past, and their operational strengths and challenges. Due to the variation of health care delivery systems, not all payment strategies are appropriate for every medical condition. Appendix Figures 1 and 2 summarize the characteristics of different strategies and how they may be targeted to different types of medical episodes.

Bundled Payments

Fragmentation across the care delivery system leads to considerable inefficiencies, especially for acute care episodes such as heart surgery or joint replacement. To encourage better coordination of care across the multiple providers and services involved in a complex episode, many public and private payers are turning toward bundled payments, also called episode-based payments. Under this strategy, the payer and provider establish a flat payment for all services involved in a medical episode. Bundled payments are thought to balance the risk sharing between
providers and payers, where providers are at risk for performance and payers are at risk for the volume of episodes.  

**History and Cases**

From 1991 to 1996, the Centers for Medicare and Medicaid Services (CMS) operated the **Medicare Participating Heart Bypass Center Demonstration** with seven hospitals, using bundled payments to cover all services from the hospital, surgeon, and other providers. An evaluation found that this demonstration lowered Medicare expenditures for bypass surgery by about 10 percent at the participating facilities. In 2009, CMS started the **Medicare Acute Care Episode (ACE) demonstration** with five hospitals in Colorado, New Mexico, Oklahoma, and Texas. In the ACE demonstration, Medicare bundled hospital and physician payments for coronary artery bypass grafting (CABG) and hip/knee replacement surgeries. Under the ACA, Medicare expands the use of payment bundling with its new **Bundled Payment for Care Improvement** program. Models in this new program expand payment bundles to 48 types of medical episodes and include post-acute services after patients are discharged from the hospital.

Private insurers have also experimented with bundled payments. Since 2006, **Geisinger Health System** has piloted its ProvenCare bundled payment system for non-emergency CABG procedures. The bundled payment includes all pre-operative care, hospital and professional fees, post-discharge care, and offers a 90-day “warranty” that covers care for any complications that arise within 90 days of the surgery. ProvenCare is credited with decreasing the CABG overall length of stay by 16 percent and hospital charges by 5.2 percent.

In recent years, large employers have developed bundled payment programs with large, integrated providers for particular surgical procedures. For example, Lowe’s Home Improvement has had a bundled payment program with the **Cleveland Clinic** for CABG surgeries since 2010. Under this partnership, Lowe’s waives the typical $500 deductible for its employees and covers travel expenses to the Cleveland Clinic, which accepts a flat payment for the procedure. Beginning in 2014, Lowe’s and Walmart will begin using bundled payments for knee and hip replacements performed at four health systems. While these “factory line” payment arrangements may be

---

successful for Geisinger, Cleveland Clinic, and other systems with integrated care delivery, questions remain about the widespread use of this type of payment arrangement.\(^8\)

A different type of payment model called PROMETHEUS\(^9\) was designed to be used for a broad set of services and by various provider arrangements. PROMETHEUS uses patient-specific budgets, also known as “evidence-informed case rates”, as the basis for determining bundled payment amounts for both acute and chronic treatment services. Early implementation of PROMETHEUS at three pilot sites from 2007 to 2011 was not successful.\(^10\) However, the Health Care Incentives Improvement Institute has continued to recruit providers and by June of 2012, there were 19 pilots implementing bundled payments with half using the PROMETHEUS model.\(^11\) The Robert Wood Johnson Foundation, which has funded this work, noted that the 19 pilot sites had learned from the initial failures and were able to go from concept to full implementation within a year.

**Advantages**

The bundling of a single payment across multiple providers could be a significant incentive for all the providers involved in an episode (physicians, hospitals, and post-acute settings) to coordinate the care that they deliver while offering providers flexibility in determining what types of specific services to deliver in order to maintain performance standards. Under traditional fee-for-service systems, payers often impose administrative approval processes on providers (such as prior authorization) in order to influence the total cost of care. In contrast, bundled payments give providers the incentive to avoid providing unnecessary services and therefore can dispense with such oversight strategies.\(^12\)

**Challenges**

Implementation of bundled payments provides several technical and organizational challenges to payers and providers seeking to participate. Payers usually need to make significant claims processing reforms in order to distribute bundled payments, and providers must have a mechanism to divide these payments once they are received—a substantial challenge if hospitals, physicians, and other providers are not well integrated. Low volumes of bundled services can also leave providers vulnerable to high-cost cases and too much risk.\(^13\)

**Population-based Payments**

As a way to manage both the volume and cost of health care, payers have implemented and experimented with population-based payment approaches over recent decades with varying degrees of success. During the 1990s,

---


\(^9\) The term is a loose acronym for Provider Payment Reform for Outcomes, Margins, Evidence, Understandability, and Sustainability.


\(^12\) H. Miller, *From Volume to Value*..

\(^13\) R. Mechanic and C. Tompkins. Lessons Learned Preparing for Medicare Bundled Payments.
traditional, full capitation payments—flat per person amounts paid to providers to deliver all care for a population—rose and then fell in popularity as a strategy to control the increase in health care costs. Capitation shifts the financial liability of patient costs and utilization to providers, which encourages small providers (particularly physician groups) to consolidate to better manage this risk. While capitation allows providers to earn profits by reducing costs to a level below their capped payments, this approach also requires restricted provider networks to be successful, making it unpopular with many patients. Full and partial capitation systems are generally used by most health maintenance organizations (HMOs). As of July 2011, approximately 22.5 percent of Americans were enrolled in an HMO.  

Since most health care continues to be delivered through non-capitated health plans, and most consumers prefer delivery systems with more open access to providers than what is generally included in HMOs, payers have sought models to reward providers for meeting population-level targets on cost, quality, and patient outcomes within traditional and preferred provider networks. Population performance payment strategies that have received the most attention include shared savings, global payments, and value-based payments.

**Shared Savings**

Shared savings programs have been seen as a possible path to encourage providers to provide high-quality care at lower costs. Under this payment strategy, providers typically continue to receive their usual reimbursement for services, but they have the opportunity to share in the savings generated from providing care at a lower cost than their pre-defined target. The shared savings strategy has emerged as a primary cost control mechanism in ACO models that have been designed and implemented by both public and private payers.

**History and Cases**

In the CMS Physician Group Practice (PGP) Demonstration project, which was administered from 2005 to 2010, ten participating physician groups across the U.S. received their regular Medicare payments for services delivered to beneficiaries. If the participants met certain quality measures and exceeded a savings target of 2 percent, they could share in the savings generated. Results from the PGP demonstration are mixed. Participants did well on meeting the quality metrics, with seven of the ten groups meeting all 32 performance measures by the final year. However, only two of the participants, the University of Michigan Faculty Group Practice and the Marshfield Clinic, were able to meet the 2 percent savings benchmark in all five years, leading some to question the effectiveness of shared savings for lowering health care costs.

The ACA utilizes the shared savings mechanism in both of its proposed ACO models—the Medicare Shared Savings Program (MSSP) and the Pioneer ACO program. In both programs, patients are attributed to a provider for their services. However, patients are not limited to their attributed provider, and they can continue to seek services from other providers. In order to participate in the MSSP, providers must serve a minimum of 5,000 Medicare beneficiaries; the Pioneer program requires 15,000 Medicare beneficiaries in non-rural areas. In both

---

models, providers are able to capture a portion of achieved savings if they meet a cost reduction benchmark; they are also subject to losses if their costs exceed the benchmark. The inclusion of a shared risk mechanism is seen as an important advancement in this payment strategy, since penalties for excessive costs were not included in the PGP demonstration and have not been common in private payer pilots. In the first performance year of the Pioneer program, 13 of the 32 participants produced shared savings, and all participants earned bonuses for quality.

**Advantages**

The shared savings strategy is designed to minimize disruptions to patients and can be used within open access delivery systems and with self-funded health plans. Shared savings is also flexible enough to be coupled with other payment strategies. For example, the Pioneer ACO model requires participants to operate under full or partial capitation arrangements by the third year of their contract. Along with its emphasis on cost control, shared savings models often include multiple quality measures that providers must fulfill in order to qualify for any potential savings.

**Challenges**

Implementation of shared savings programs can require considerable investment in information technology to track quality measures and adjust for patient risk. Patient attribution methods also vary considerably. Some models, such as MSSP, use prospective attribution based on where a patient has received primary care historically. Other models use retrospective attribution based on where a patient received care during the baseline year of implementing the model. Unlike traditional capitation models, patients are not “locked in” to a provider, which can make cost control a significant challenge. As seen by the PGP demonstration, evidence of significant cost savings under shared savings has not been strong.

**Global Payments**

Beyond capitation approaches, payers have continued to develop other payment models that institute provider payment budgets. One strategy that is used in many other countries and that some payers are trying in the United States is called global payment. This system requires providers to create an annual budget for all services for a designated patient population, adjusted for condition severity. While global payment systems focus on reducing health care costs, they often include many financial incentives for improving the quality of care.

**History and Cases**

One global payment model that has received serious attention is the Blue Cross Blue Shield of Massachusetts Alternative Quality Contract (AQC). Beginning in 2009, Blue Cross launched the AQC with eight physician groups under five-year contracts. These groups must include primary care physicians who participate in Blue Cross’s HMO

---


plan, which requires members to select a primary care physician. Under their contracts, each group receives a negotiated, risk-adjusted annual budget, based on historical spending for plan members.\(^{19}\)

Under the AQC, providers continue to be reimbursed on a fee-for-service basis, but the cost of each service is debited from their annual budget. To save money, Blue Cross is limiting growth in the annual budget and putting pressure on providers to reduce costs in order to meet their financial targets. Along with their budget payments, providers are also eligible for financial incentives if they meet quality measures. If a group achieves high levels of quality, it could receive a bonus of up to 10 percent of its overall annual budget.\(^{20}\)

**Advantages**

Early evidence from the AQC shows that global payments have the potential to lower the rate of medical cost growth relative to other payment arrangements. In the first year of the AQC, groups under the contract experienced cost growth that was 1.9 percent lower per member than cost increases for other HMO members who received care from non-AQC groups. In addition, the AQC was associated with a 2.6 percent increase in members who met quality thresholds for chronic disease management.\(^{21}\) By July of 2012, 77 percent of Blue Cross Blue Shield of Massachusetts members were part of the AQC.\(^{22}\) While these early results are encouraging, long-term effectiveness of cost reduction and quality improvement from global payment arrangements—as well as expansion beyond this HMO model—is not clear.

**Challenges**

One of the strategies that AQC groups have used to meet their cost targets is changing their referral patterns. Specifically, groups have monitored referrals and encouraged physicians to refer patients to less expensive providers. Groups have also worked to minimize the amount of “leakage”—the number of patients who seek care outside the physician group.\(^{23}\) Although this may be an effective way to lower costs within the group, it is possible that limiting choice in this way could result in backlash from patients.

While the AQC has demonstrated early relative cost savings for medical care, this does not reflect total expenditures paid to providers, which include quality bonuses and infrastructure in addition to payments for medical care. Indeed, a report from the Massachusetts attorney general criticized the AQC model as failing to control costs, due to the high growth in total expenditures.\(^{24}\) When these other payments are taken into account, global payments would have to generate even larger medical savings to be at least budget neutral.

---


\(^{23}\) Mechanic, et al. Medical Group Responses to Global Payment.

\(^{24}\) Office of Attorney General Martha Coakley. June 2011. *Examination of health care cost trends and cost drivers pursuant to G.L. c. 118G, sect. 6 1/2(b).*
Value-based Payment

Quality incentive programs that do not necessarily rely on shared savings or other cost control mechanisms are also gaining serious attention as a way to improve health care delivery. These value-based payment programs are usually targeted at quality but can also focus on issues such as patient experience, patient safety, decreased utilization, care coordination, and adoption of electronic records.\(^{25}\) The use of value-based payment programs is widespread across the health care sector, with half of all HMOs including pay for performance (P4P) incentives in their contracts with physicians, hospitals, and nursing homes.\(^{26}\)

History and Cases

Evaluation of value-based payment systems in health care, especially early P4P programs, has shown mixed results. Positive evidence of physician and physician group P4P programs has typically only come from incentive programs for a small set of services (for example, immunizations) with only modest results in terms of changing provider behavior. Many other evaluations show P4P as having little or no effect on reducing costs and improving provider quality.\(^{27}\) However, others have argued that P4P programs have not been well designed and that the incentives have been too small to affect behavior.\(^ {28}\)

P4P remains a popular strategy and is being implemented by CMS as part of the ACA’s **Value-based Purchasing (VBP) programs**. The Hospital VBP program requires almost all acute care hospitals in the country to report measurements on process of care, patient experiences, and outcomes, and it rewards hospitals for both achievement and improvement. The program will be funded through an incentive pool that is financed from a 1 percent cut in payments for admission beginning on October 1, 2012, increasing to 2 percent of payments by October 2017. Hospitals with greater achievement and improvement will experience a net increase in reimbursement, and those that do not will experience a net decrease.

Payers are also combining P4P mechanisms that reward providers on quality and efficiency measures with strategies that provide other forms of population-based payment. For example, **Blue Cross Blue Shield of Michigan’s Value Partnerships** program reforms payment incentives to reward primary care physicians, specialists, and hospitals that develop strong care coordination and population management capabilities. BCBSM’s Physician Group Incentive Program (PGIP) provides incentives for primary care physician organizations that develop patient-centered medical home capabilities, including patient registries, performance reporting, and individual care management.\(^ {29}\)

---


BCBSM also is scaling the PGIP program to help participating physician organizations join with specialists and hospitals to become Organized Systems of Care (OSCs) that are responsible for all patient care in a community, with a focus on developing infrastructure and care coordination. Initially, OSCs will promote data integration and care management processes so that providers can have prompt access to patient information and their care managers, regardless of where the patient is in the continuum of care. Once these capabilities are developed, Blue Cross envisions connecting payment to population-level performance.

Advantages
The adoption of valued-based pay programs has become widespread because of their ability to be applied on an incremental basis with many types of health care providers and payers. Incentives can be designed to meet the needs of providers and lower barriers to participation. For example, by September 2012, 37 physician organizations in Michigan had established 42 OSCs, while only three provider organizations were participating in a CMS Pioneer ACO program, which has more rigid participation requirements. By aligning incentives across all providers, P4P programs have the potential to harmonize measures and incentives across care settings. For example, to lower the number of hospital readmissions, payers have the ability under value-based payment to include the same set of incentives for hospitals, physicians, and the post-acute care settings they contract with.

Challenges
Similar to shared savings and other population-based payment arrangements, value-based payment systems usually require providers to have the technology in place to report information and the infrastructure to react to the incentives available to them. Specifically, it is important for providers to be able to receive timely reports from payers on their performance along with information about process improvement capabilities, so they can adjust their practices as necessary to meet their financial and quality goals. Currently, few physicians have prompt access to such data and resources. Moreover, basing reimbursement on a series of intricate measures also can be administratively complex for many payers and providers who have to track these measures.

It can also be challenging to design value-based payment programs that will generate the optimal response from providers. Behavioral economics research suggests that individuals respond to incentive rewards differently than large organizations. This research also suggests that design elements such as offering multiple small incentives, having multiple thresholds, reducing lags between actions and rewards, and minimizing the complexity of incentive plans can increase changes in behavior on the part of individuals. Research also notes the payers should be aware of the potential of crowding out the intrinsic (professional) motivation of providers when increasing their extrinsic (monetary) motivation.

---

31 Share and Mason, Michigan's Physician Group Incentive Program.
32 Ibid.
33 Mehrotra et al., Using the Lessons of Behavioral Economics.
34 Ibid.
Conclusions

- While a variety of payment reform strategies are garnering significant attention, there is little long-term evidence of their ability to reduce the growth of health care costs while improving the quality of care.
- Bundled payments have shown limited success but may be best suited to controlling cost variation for certain types of acute care episodes. It is largely unclear how successful bundled payments can be outside of highly integrated health systems, and the administrative complexity of these bundled payments has caused delays in their wide-scale implementation.
- Population-based payment models may be a potential way to reduce variation in health care utilization across populations, but further evidence of their effectiveness is necessary.
  - Shared savings programs have the ability to improve quality of care but may not able to reduce costs unless they also involve shared risk.
  - Global payment programs may be able to reduce costs in the short run but further evidence is needed to prove that their effects are durable.
  - Pay for Performance programs have been adopted widely but with significant variation in the details of their implementation. Evidence of their effectiveness is not strong but the flexibility of P4P and its ability to be implemented incrementally maintain its popularity.
  - Though results data are limited, emerging value-based payment models (such as the Blue Cross Blue Shield of Michigan OSC strategy) have promise with regard to both cost savings and quality and can build on the findings from the shared savings and pay-for-performance programs.
- Past experience shows that payers and providers must be prepared for the administrative and technical challenges of implementing these models.
- The payment strategies that demonstrate the most impact on both cost and quality are those that have been implemented within tight, managed care networks with patient assignment or in highly integrated provider delivery systems. Outside of these structures, there is little evidence of payment systems that achieve a significant impact on cost or quality.
- To the extent that fee-for-service reimbursement remains the predominant form of payment, the best payment strategies are likely to be a combination of several of the above approaches with constant refinement to mitigate the noted challenges and maximize effectiveness.

Author: Josh Fangmeier, MPP
Appendix

Figure 1: Targeting of Bundled Payment vs. Population-based Payment Strategies

<table>
<thead>
<tr>
<th>Amount/variation of cost per episode</th>
<th>Frequency/variation of episodes per condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Low</td>
<td>Low</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bundled Payment</th>
<th>Bundled payment plus population-based payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fee-for-service</td>
<td>Population-based payment</td>
</tr>
</tbody>
</table>

Figure 2: Summary Table of Payment Strategies

<table>
<thead>
<tr>
<th>Description</th>
<th>Bundled Payments</th>
<th>Shared Savings</th>
<th>Global Payment</th>
<th>Value-based Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Encourages collaboration among providers involved in the treatment of complex medical episodes</td>
<td>Incentivizes providers to reduce spending by offering a percentage of net savings</td>
<td>Makes provider financially responsible for medical outcomes and costs for a given patient population</td>
<td>Rewards providers for quality care, patient satisfaction, care coordination, safety, and efficiency</td>
</tr>
<tr>
<td><strong>Financial Model</strong></td>
<td>Provides a single payment to cover all services associated with an episode of care</td>
<td>Gives providers an opportunity to capture a portion of savings achieved if their actual costs are below projections</td>
<td>Pays providers based on an annual budget for all services for their patient population</td>
<td>Provides incentive payments based on a series of quality and efficiency measures, along with achieved capabilities</td>
</tr>
<tr>
<td><strong>Provider Financial Risk</strong></td>
<td>Providers face risk for their performance but not for the volume of episodes</td>
<td>Providers not necessarily at risk for their patient population, unless the model includes shared risk</td>
<td>Providers bear virtually all risk for their patient population</td>
<td>Providers not necessarily at risk for their patient population</td>
</tr>
<tr>
<td><strong>Patient Attribution Method</strong></td>
<td>Patients may be assigned a provider for specific services based on payer arrangement</td>
<td>Patients are attributed to providers but not assigned</td>
<td>Patients assigned to specific providers</td>
<td>Patients are attributed to providers but not necessarily assigned</td>
</tr>
<tr>
<td><strong>Breadth of Services</strong></td>
<td>Typically limited to acute care services</td>
<td>All services</td>
<td>All services</td>
<td>Potentially all services</td>
</tr>
</tbody>
</table>

---