Physician Payment Reform

Early Innovators Share What They Have Learned

Innovators Committee
July 2012
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Executive Summary

The U.S. health care system is in a state of flux as policy makers, providers, and patients come to terms with decades of cost growth that has become unsustainable. In this transitional period, numerous payment models are being considered as a means to reward the delivery of high-quality, cost-effective care. However, the perceived rapid pace of change has left many physicians and their patients questioning whether they will be able to continue practicing medicine or whether their treatments will be covered.

The AMA’s Innovators Committee is tasked with developing the resources necessary to help practicing physicians from various specialties assume a leadership role in developing and implementing effective payment and delivery reforms that are applicable to their practice setting and service mix. As a companion to a Delivery Reform Whitepaper that was released in May 2012, the following Payment Reform Whitepaper will describe payment models that promote the responsible delivery of high-value care and offer insights on how early innovators overcame numerous challenges to implement these novel approaches. Both whitepapers and other health care reform resources can be found at www.ama-assn.org/go/paymentpathways.

Chapter 1 begins by describing the challenges of the current Fee-for-Service system, which contributed to fragmented care delivery growth in health care expenditures. It then briefly lays the groundwork for the remainder of the paper by describing the various new and transitional payment models that, while often not completely replacing the current system, establish a transition from Fee-for-Service going forward.

Chapter 2 describes the operational and structural details of Pay-for-Performance Programs, Care Management Models, Shared Savings Models, Episode-Based Bundled Payment Models, and Global Bundled Payment Systems. It goes on to give an honest and practical assessment of the positives and negatives associated with each model as well as attempting to describe which services may be appropriate for specific models. Examples of success stories specific to each model are sprinked throughout this Chapter.

Chapter 3 describes the numerous challenges that must be overcome in order to move forward with payment reform. These include establishing an accurate definition of health care value, building the technological infrastructure, determining the episode length, payment attribution, and so on. Each challenge is counterbalanced by a possible solution that is designed to guide innovative physicians through the difficult implementation stage.

Chapter 4 translates the challenges and solutions discussed in the last chapter into the fundamental elements for reform. Picking the right payment models, determining who controls the purse strings, and data collection and analysis are among the elements discussed. This chapter also makes the critically important point that new and transitional payment models do not exist in isolation; as a practical matter, they must be designed to coexist with one another as well as a smaller Fee-for-Service system.

Chapter 5 builds on the previous chapters by describing hybrid models that exist in the real world. The examples offered, which include some combination of Fee-for-Service and/or new and transitional payment models, demonstrate that sustainable reforms that maintain physicians’ professional autonomy are possible and are proliferating.

Finally, the epilogue closes with a few remarks about past reform efforts and why patient engagement and technological solutions that allow for the efficient exchange of information will be critical to the success of current (and future) reform efforts. The authors conclude by noting that the absence of medical liability reform poses a significant challenge to new care delivery and payment models. An overview of potential innovative options to reform the medial liability system are available at http://www.ama-assn.org/resources/doc/arc/mlr-now.pdf.

For questions or concerns related to this whitepaper or the role of the Innovators Committee specifically, please e-mail AMA staff or call (202) 789-4580.

Note: Products or resources mentioned in this whitepaper are provided for informational purposes and represent the Innovator’s perspective. Their inclusion neither infers nor implies endorsement of said products by the AMA.
## Acronyms

The following is a list of acronyms used throughout the paper. In some cases, this list should be used in conjunction with the Glossary of Terms (see pages 42-44) to fully understand what a particular phrase means.

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACA</td>
<td>Accountable Care Associates, Inc.</td>
</tr>
<tr>
<td>ACC</td>
<td>American College of Cardiology</td>
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<td>ACO</td>
<td>Accountable Care Organization</td>
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<tr>
<td>ABMS-REF</td>
<td>American Board of Medical Specialties Research and Education Foundation</td>
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<tr>
<td>AQC</td>
<td>Alternative Quality Contract (BCBS of Massachusetts)</td>
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<tr>
<td>BCBS</td>
<td>Blue Cross Blue Shield</td>
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<td>BCN</td>
<td>Blue Care Network (BCBS of Michigan)</td>
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<tr>
<td>C3W</td>
<td>Chronic Care Coordination Workgroup</td>
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<tr>
<td>CHT</td>
<td>Community Health Team</td>
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<tr>
<td>CIT</td>
<td>Clinical Information Trust</td>
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<tr>
<td>CKD</td>
<td>Chronic Kidney Disease</td>
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<tr>
<td>CMMI</td>
<td>Center for Medicare and Medicaid Innovation</td>
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<tr>
<td>CMS</td>
<td>Centers for Medicare and Medicaid Services</td>
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<tr>
<td>COQ</td>
<td>Collaboration on Quality (Wellmark BCBS)</td>
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<tr>
<td>CPCI</td>
<td>Comprehensive Primary Care Initiative</td>
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<tr>
<td>CPT</td>
<td>Current Procedural Terminology</td>
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<tr>
<td>CQI</td>
<td>Collaborative Quality Initiative (BCBS of Michigan)</td>
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<tr>
<td>DRG</td>
<td>Diagnosis-Related Group</td>
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<tr>
<td>ECR</td>
<td>Evidence-Informed Case Rates</td>
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<tr>
<td>HER</td>
<td>Electronic Health Record</td>
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<tr>
<td>FFS</td>
<td>Fee-for-Service</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<tr>
<td>GPS</td>
<td>Global Positioning System</td>
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<td>HCI3</td>
<td>Health Care Incentives Improvement Institute</td>
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<td>HIE</td>
<td>Health Information Exchange</td>
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<td>HIPAA</td>
<td>Health Insurance Portability and Accountability Act</td>
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<td>HMO</td>
<td>Health Maintenance Organization</td>
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<tr>
<td>ICD</td>
<td>International Classification of Diseases</td>
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<td>IPA</td>
<td>Independent Physician Association</td>
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<td>MedPAC</td>
<td>Medicare Payment Advisory Commission</td>
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<tr>
<td>MAP</td>
<td>Measures Application Partnership</td>
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<td>MAPCP</td>
<td>Multi-payer Advanced Primary Care Practice Demonstration</td>
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<td>NCDR</td>
<td>National Cardiovascular Data Registry</td>
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<td>NCQA</td>
<td>National Committee for Quality Assurance</td>
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<td>NOTA</td>
<td>National Organ Transplant Act</td>
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<td>NPP</td>
<td>National Priorities Partnership</td>
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<td>NQF</td>
<td>National Quality Forum</td>
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<td>NQS</td>
<td>National Quality Strategy</td>
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<tr>
<td>P4P</td>
<td>Pay-for-Performance</td>
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<td>PACES</td>
<td>Patient-Centered Episodes System</td>
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<td>PCI</td>
<td>Percutaneous Coronary Intervention</td>
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<tr>
<td>PCMH</td>
<td>Patient-Centered Medical Home</td>
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<td>PCMH-N</td>
<td>PCMH-Neighbor</td>
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<td>PHO</td>
<td>Physician-Hospital Organization</td>
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<tr>
<td>PMPM</td>
<td>Per-Member Per-Month</td>
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<td>PPACA</td>
<td>Patient Protection and Affordable Care Act</td>
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<td>PSR</td>
<td>Program Specific Reports</td>
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<td>Q-HIP</td>
<td>Quality-In-Sights: Hospital Incentive Program (Wellpoint, Inc.)</td>
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<td>QAPI</td>
<td>Quality Assurance and Performance Improvement</td>
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<td>QHI</td>
<td>Quality Health Ideas</td>
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<tr>
<td>RBRVS</td>
<td>Resource-Based Relative Value Scale</td>
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<td>RVU</td>
<td>Relative Value Unit</td>
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<tr>
<td>STS</td>
<td>Society of Thoracic Surgeons</td>
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<tr>
<td>SGR</td>
<td>Sustainable Growth Rate</td>
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<tr>
<td>UNOS</td>
<td>United Network for Organ Sharing</td>
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<tr>
<td>VCSQI</td>
<td>Virginia Cardiac Surgery Quality Initiative</td>
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<tr>
<td>VIC</td>
<td>Vascular Intervention Collaborative (BCBS of Michigan)</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
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Chapter 1: Where We Are and Where We Need to Go

The current mechanisms to purchase physician services are viewed by many as obstacles to coordinated and efficient care. Proponents of reform often point to a highly fragmented Fee-for-Service (FFS) payment system that supports an equally fragmented delivery system. This fragmentation can impede the delivery of coordinated, high quality care, and lead to inappropriate utilization and associated cost growth. The need to improve patient care while lowering growth in costs makes a compelling case for development and implementation of new payment models that can address the problems with the current FFS system. In fact, the development of new methods that reinforce coordination and more physician stewardship of limited health care dollars is viewed increasingly as neither an option nor a choice, but rather, an imperative. However, before addressing the various models being offered as alternatives, it is important to establish the expectations for payment reform and improve our understanding of some of the practical realities affecting physician payment. Alignment of these expectations should ultimately foster achievement of shared goals, thereby resulting in beneficial and sustainable change.

Questions and concerns about two fundamental issues need to be addressed for positive changes to occur. First, there is the issue of reasonable and appropriate compensation for the value of services rendered. If there is consensus that it is time to transition away from systems that predominantly pay for the “quantity” of services rendered toward those that pay for service “quality and effectiveness,” then payment methods must reward higher quality and more effective care. For this to happen, contractual agreements between purchasers, consumers, and providers must be fair and must recognize a valid set of quality measures. The second issue, related to the first, involves defining the value proposition, especially with respect to optimizing the value of health care delivery, and making sure that consumers truly derive that value. Similarly, the complex web of interactions between health care stakeholders must be fully understood in order to transition successfully from a health care marketplace comprised largely of independent entities to health care systems that are financially and/or clinically integrated. A salient point, which must be considered an imperative for the successful transition to a “value-based system,” will be the establishment of performance measures—both primary outcomes measures and secondary process measures—as well as adequate risk adjustment to limit exposure for those factors that physicians do not control while simultaneously holding physicians financially responsible for their performance.

These pivotal issues are addressed in the Glossary of Terms, which defines concepts such as the various payment models, the key roles and stakeholders and the typical relationships between them in each model, the units of care delivery, and the payment mechanisms.

Cost, Quality and the Value Deficit

The overwhelming majority of payments for physician services in the United States are made on an FFS basis to each physician rendering a discrete professional service to an individual patient. Under the current system, the actual payment rates for a given service may vary widely based on factors such as, supply and demand, the geographic differences in labor costs, the relative leverage of the parties purchasing and delivering the service, regulatory requirements, and legacy fee schedules. However, despite this variability, the dominant payment methodology remains FFS. Thus, any new payment approaches or models must contend with service lines and practice patterns that were built around FFS and a perception that, notwithstanding all of the problems associated with the current system, better the devil you know.

By definition FFS pays more when more services are provided, but FFS payments are not affected by the quality, appropriateness or actual value of the services rendered. For this reason, FFS is often referred to as a volume-based payment model, while most alternative models are characterized as value-based models. In fact, several aspects of the FFS model (or at least the way FFS currently is administered) present serious barriers to providing more value-based care. This includes inadequate or no compensation by payers for non-face-to-face activities, such as telephone consultations, communications with other health professionals, and reviewing reports related to complex care. As a result, physicians’ practicing in a FFS model who devote considerable efforts and resources to keeping their patients healthy by preventing
or better managing diseases, avoiding unnecessary hospital stays and complications, and ensuring seamless care transitions are not directly compensated for this work; by convention, compensation for this work is considered inherent in the fees collected for directly compensable procedures and services. While this model may have functioned in the past, advances in technology, complexity of care and the need to organize care across numerous parts of the health care system make FFS less defensible. These limitations provide a clear and perverse disincentive to provide high value services that improve care for patients with chronic and complex conditions, and, as such, are likely to be major contributing factors to rising health care costs. Determining and properly compensating those physician services that add “value,” must be methodologically defined and installed as a component of future delivery models.

To underscore the challenge before us, total health care expenditures reached $2.6 trillion in 2010, which translates to $8,402 per person or 17.9 percent of the nation’s Gross Domestic Product (GDP). These figures are expected to grow to $4.6 trillion and 20 percent of GDP respectively by 2020. In contrast, we spent almost $256 billion or 9.2 percent of GDP on health care in 1980, just over half as much as what was spent on physician and clinical services alone in 2010.1

Some have argued that the impact physicians have on health care spending is disproportionate to their 16 percent share of total expenditures. This argument is based on the point that physicians control growth in the utilization of prescription drugs and other clinical services, such as office-based drug administration and imaging studies2. Nonetheless, there are some limits to the ability of physicians to control spending, since they do not set the prices for new technology or drugs, determine payments to other providers, or establish coverage policies. Thus, physicians cannot directly absorb the magnitude of cost containment necessary for sustainability on their own; marked changes in the way hospitals and other parts of the health care delivery system are compensated are clearly necessary.

New and Transitional Payment Models = Care Improvement Opportunity

There are a number of alternative mechanisms in place for purchasing physician services such as employment or contractual models, episode of care models and global payment models. The Veterans Administration, Mayo Clinic, Permanente Medical Group and a growing number of other health care systems represent employment models in which an entity directly hires physicians to deliver services and compensates them by salary or some other means. In an episode-based bundled payment model designed to share risk between payers and providers, a payer entity contracts with an individual physician or group of physicians to deliver a defined episode of care (e.g. organ transplantation, maternity care, spine surgery) to an individual patient for a pre-specified contracted fee. These contractual arrangements may include variable payment rates for typical and outlier cases, as applicable, as well as additional payments for non-face-to-face services provided during the episode of care. The Alternative Quality Contract (AQC), which was developed by Blue Cross Shield (BCBS) of Massachusetts, is an example of a virtual global payment model. Under this model, BCBS of Massachusetts negotiates a fixed, global budget with groups of participating providers that continue to be paid through FFS for the defined scope of services. This offers the advantage of maintaining FFS payments as providers gain experience with global budgets—the virtual precursor to prospective global payments. At the end of each calendar year, the global budget is reconciled against the FFS payments to determine savings or losses.

While there are numerous variations and permutations of these three models, each is designed to incent and empower physicians to exercise professional judgment to more appropriately deliver diagnostic and therapeutic services that optimize value and outcomes. At their core, these new and transitional payment models seek to simultaneously achieve somewhat different—and sometimes competing—objectives.

1. Encourage Clinical Integration: First, these models are designed to move toward effective team-based care that avoids unnecessary hospital admissions and complications through greater care coordination and seamless transitions across health care domains. For clinical integration to be effective, clinically integrated models must engage all providers and patients towards the achievement of value-based care delivery. To this end, the model’s design must include workable, realistic and measurable mechanisms to ensure compliance with program goals; medicine has become a team sport.

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1 National Health Expenditure Data. CMS, 2010: https://www.cms.gov/NationalHealthExpendData/
2. **Efficiently Allocate Limited Resources:** Second, some of these models need to allocate limited health care resources more equitably by recognizing the value of care delivery components that do not involve face-to-face and procedural encounters, but instead serve to coordinate and facilitate care through information technology and telecommunications infrastructure.

3. **Rebalance the Health care Workforce:** Third, these models need to rebalance the health care workforce to ensure that the mix of health professionals and specialties is optimized to deliver high-value care to individual patients and the population.

4. **Encourage Competition Between Providers:** Fourth, these models need to enable competitive market forces to limit the cost of care by rewarding providers for health promotion and disease prevention while limiting discretionary (or unnecessary) care and avoiding complications.

5. **Foster Provider Accountability:** Fifth, physicians and other providers practicing in such models must accept responsibility for both the clinical and financial outcomes of the care they deliver and coordinate with their colleagues.

It is unlikely that a single model for physician payment will achieve all of these objectives, thus arguing for the logic of allowing multiple approaches to coexist. Moreover, local and regional variations in delivery systems, social factors and economic environments argue further against a one-size-fits-all approach. The differential baseline health status of various regional populations must also be taken into account with a severity-of-illness scoring methodology to avoid “cherry picking” of populations or sub-populations by both systems and contracting mechanisms. Overhauling the current payment system to recognize numerous value-based care delivery models, while also recognizing a continuing role for FFS, will provide a flexible approach to meet these five key objectives.

Given these local variables, charge-based models—a form of FFS that is gaining popularity in some circles—also should be acknowledged. In a charge-based model, a patient is responsible for the charge—or a negotiated discounted charge—established by the physician, and independent of insurance coverage (or other external standards). Proponents of these models argue that they are a reasonable free market approach and afford physicians the flexibility to create greater value for their patients by offering enhanced access and bundling non-covered services into their fees. Their detractors argue that charge-based models increase the current inequities in our health care system by allowing those who can afford it to obtain a level of service beyond what those who rely on insurance coverage can buy. Moreover, the lack of standardized quality measures and other primary outcome endpoints in these models, as well as the fact that they are intertwined with existing contractual agreements with payers (i.e. they are superimposed on existing coverage), do not allow for a valid assessment of their value proposition, certainly in terms of their impact on both quality and cost. Currently applicable to only a small fraction of patients and services, these models may grow in popularity as physicians look for ways to maintain their independence amid declining payer reimbursements and increasing regulatory burdens.

**Medical Ethics and the Consequences of Inaction Make Change Imperative**

Not to be lost in the quest for innovative payment models is the fundamental expectation that physicians have a fiduciary and ethical obligation to their patient and society to use precious health care resources efficiently. Reconciling these professional and societal responsibilities must be the bedrock for evaluating both the numerator (quality) and denominator (cost) of the value equation. Inherent to this analysis are fair compensation for services rendered, the cost-efficiency and cost-effectiveness of these services, and finally, achieving the desired outcomes for both the individual patient and various populations that comprise our society. Also inherent to this analysis is the fact that given limited resources, these two aspects of health care may, at times, result in competing priorities. Therefore, unless the medical profession embraces and leads innovative efforts to redesign models of health care delivery and payment along principles established by consensus, suboptimal solutions, including a number of previously proposed systems, may be forced upon the profession, their patients and society.
Chapter 2: Payment Models That Break Down the Barriers to Value-Based Care

There are several broad categories of new payment models, in addition to numerous hybrids that move in the direction of supporting higher quality and more efficient care. While the ultimate significance of these models as transitional steps or as desired end points will depend on one’s perspective, most would agree that these models portend a smaller role for—but not the end of—FFS payments.

Some payment models are layered on top of existing FFS payments. Other models are moving in the direction of prospective payments for episodes of care or global budgets while preserving FFS payments for certain services or services rendered by providers that are not able to organize into an entity able to accept financial responsibility for a population. For example, emergency care, routine prevention, imaging services, consultations and non-chronic sick care may continue to be reimbursed through some form of FFS. Recognizing that these models are not mutually exclusive, physician practices, hospitals or integrated delivery systems may employ some variation, combination or permutation of all of these models.

Similarly, certain outlier physicians may continue to be paid exclusively under FFS—for example, rural physicians and certain specialists who do not fit into the new models. Even some older physicians may prefer the continuity of the status quo as they near retirement age, particularly since they may not realize a return on the practice investments that successful participation in these new models will require.

**Traditional Pay-for-Performance (P4P)**

Under a pay-for-performance model, providers are paid bonuses on top of FFS based on their performance against predetermined and objectively measurable targets, typically including measures of clinical quality and less often, measures of cost efficiency. The main advantages to P4P programs are their relatively low barrier for participation (essentially any provider or group with reportable measures is able to participate), their focus on “bonus only” approaches, and their reliance on easier to report process measures. P4P payments can be non-risk (i.e., strictly bonuses) or risk-based (i.e., bonuses and penalties) although, in reality, funding for most bonus-only models is secured through cuts in the base payment amount.

Moreover, given that P4P programs are built on an FFS foundation, such programs tend to perpetuate many of the same barriers to improving care and lowering growth in costs. For example, the “performance” that is generally rewarded in a P4P program involves following certain standards for the services that are delivered, not in efficiently achieving specific outcomes or results over a defined period of time. In essence, P4P programs, like the FFS foundation they are built upon, are designed to pay physicians more for more services. Although some care transitions and appropriateness measures are available, the compensation typically available for such activities—typically the “bonus” payment in a P4P system—is inadequate to overcome the volume-based incentives of FFS. This is an ongoing issue with any system where process measures are a major component of proposed compensation changes. P4P models that emphasize validated and reproducible outcomes measures are far more likely to produce the desired goals of health care reform yet, they present the greatest challenge to develop. Meeting this challenge, for every specialty, is what will ultimately determine success.

For P4P programs to meaningfully influence delivery of care, they must have: 1) a big budget impact that typically puts a significant portion of FFS payments at risk or allow for significant rewards; and 2) adequate infrastructure to operate the program. In our estimation, P4P programs are probably not a model for long-term success given their complexity and failure to address the underlying challenge of fragmented care delivery. Rather, these programs are best viewed as a transitional step on a path towards more value-oriented payment models.
A P4P Model That Works: When Adherence to Process Measures Reflects Good Outcomes

Between 2006 and 2010, Anthem and the Virginia Cardiac Surgery Quality Initiative (VCSQI) entered into a P4P relationship with participating cardiac surgeons. The model directly tied process measures in cardiac surgery, as defined by the National Quality Forum, with clinical outcomes as reported by the Society of Thoracic Surgery (STS) National Cardiac Surgery Database. Points were awarded to each participant depending upon compliance with process measures. Additional points were added depending upon the level of excellence in mortality and morbidity as compared to national STS benchmarks. The results were reviewed by the payer. If cumulative points fell within the negotiated range, the fees to the surgeons could be augmented by 5 to 10 percent of the standard fees for the procedure. This P4P arrangement was limited by the fact that appropriateness of the interventional surgical procedure was not assessed at the time of the collaboration between the VCSQI and Anthem. A. Speir

Care Management Payment

This is typically a “Per-Member Per-Month Payment” (PMPM) that is similar to the model envisioned by the Patient-Centered Medical Home (PCMH) and the Center for Medicare & Medicaid Innovation’s (CMMI) Comprehensive Primary Care (CPCI) Initiative. Like P4P programs, PMPM fees can be layered on top of traditional FFS as a means to purchase specific care management activities and non-physician labor that may not be separately compensable. Such models typically are reserved for primary care physicians, although some programs also include specialists who provide “principle care” services for their patient populations. For example, PMPM fees can go to neurologists for managing multiple sclerosis patients, endocrinologists for managing diabetes patients, infectious diseases physicians for managing HIV patients, etc.

PMPM models that reward all physicians and non-physician practitioners, regardless of specialty designation, who deliver designated care management services, understand the application of such payments as mechanisms to reward high-value care rather than as instruments to funnel money to certain specialties.

A key issue in such models is specifying the required care management processes the physician practice must perform as a condition for enhanced payments. At a minimum, such processes should encourage evidence-based treatments and best practices, require coordination of care with other physicians and caregivers, and meet the needs of individual patients. While payers need to exert a certain degree of control to ensure that structural requirements and standard measures are met, PMPM payment models work best if participating practices are allowed to leverage the unique features of the local delivery system to determine how best to coordinate their patients’ care. Physicians are much less likely to accept and patients are much less likely to follow a care coordination strategy that employs a top-down approach with no flexibility for innovation by local practices.

Washington State Medical Home Pilot

This multi-payer pilot, which began in May 2011, grew out of a Primary Care Coalition that was formed to ensure a viable primary care workforce in the state. Unlike most PCHM initiatives, which pay for performing care management processes, the Washington State Pilot holds participating primary care physicians’ accountable for achieving specific outcomes: reduced emergency room (ER) visits and preventable inpatient admissions.

In recognition of the need to align payer efforts, the coalition brought several payers into the pilot development process. This forced both the participating payers and physicians to work through contentious issues, such as how much risk to share, the payment method and access to data. These efforts also led to the passage of state legislation in 2009 that offers some antitrust protection to the payers.

Since the pilot does not involve new money, the physicians and payers agreed to a 50/50 risk sharing split that used PMPM payments as a proxy for shared savings—losses are repaid through smaller PMPMs. Adherence to metrics ensures that reductions in ER/inpatient admissions reflect high-quality care. Go to www.pugetsoundhealthalliance.org/services/MedicalHome.html for more information.

3   Comprehensive Primary Care Initiative: www.innovations.cms.gov/initiatives/Comprehensive-Primary-Care-Initiative/
Recent evidence suggests that care management is likely to be more effective in improving clinical outcomes and avoiding unnecessary costs if the resources are deployed at the practice level or involve direct interaction with the patient, rather than being centralized at the health plan or provided by an offsite vendor. To effectively coordinate care, the care managers need to be engaged with the physicians who know the patients, and need to develop relationships with the patients themselves. It is also important to consider the type of care managers best suited for individual practices and patient populations. For example, while appointment reminders require minimal skill level and training, patient self-management support, discharge planning (including pre-discharge counseling) and medication adherence may require practices to hire nurses, health educators or other skilled staff.

A main criticism of PMPM payment models is that they do not recognize the value of analogous care coordination performed by specialist physician practices, while not classified as primary care or principle care, may be critical to coordinating care with a patient’s medical home. This has led to efforts to promote concepts such as the “PCMH-Neighbor (PCMH-N)” that would provide a means for specialty practices that partner with medical homes to provide certain care coordination activities in return for financial incentives from payers when improved quality and efficiency (i.e., cost savings) are demonstrated. A National Committee for Quality Assurance (NCQA) recognition program designed for specialty practices based on the Neighbor concept is to be released within a year4.

These models also tend to suffer from the same shortcomings as traditional P4P programs in that they are layered on top of FFS payments in which the earning potential for increasing volume dwarfs the relatively low PMPM payments—these payments typically range from $1-$3 (see Chart B). The CPCI may hold more promise in that multi-payer alignment combined with higher than average Medicare PMPM fees makes the earning potential of participating practices much higher. Additionally the CPCI’s transition to a shared savings model in years 3 to 4 suggests that FFS payments will be less important over time.

Health Information Technology: A Necessary Component of New Payment Models

The technological infrastructure to organize and analyze large quantities of performance data, as a means to aid clinical decision making and identify quality improvement (QI) opportunities, will be required for new payment models to achieve their promise of higher value care. However, technology doesn’t just foster clinical decision support, enhanced care coordination and seamless care transitions. As discussed in more detail later, technology also will be critical to build the clinical logic for accurate risk adjustment of performance data used for provider comparisons, payment attribution and public reporting.

The form such technology takes will vary by the practice model, patient population, resources and any number of other variables—it could be an integrated electronic health record (EHR) for one practice and a cloud-based system for another. While physicians need to take a lead role in the development, implementation and scheduled updating of this technology, other stakeholders should share the costs. Moreover, to justify these investments, payers must be willing to share the performance data necessary to fully realize the value proposition.

Shared Savings Payments

This model is based on the success of integrated groups, such as Intermountain Healthcare and Geisinger, in providing value-based care. Shared savings programs have the beneficial effect of minimizing fragmented care by incentivizing joint accountability of the care team for quality and overall costs—a key precursor to global payment bundles. While such models preceded the Patient Protection and Affordable Care Act (PPACA), the statutorily mandated Medicare Shared Savings Programs popularized the concept of allowing an Accountable Care Organization (ACO) to share a portion of cost savings that come from efficiency and quality improvements. Given the focus on quality and cost, such models usually require the achievement of certain measures of clinical quality as a condition of eligibility for shared savings payments.

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4 V. S. Elliott. Can a specialty practice be a patient-centered medical home? AMNews. April 9, 2012
The Medicare Shared Savings Program will initially include a relatively modest gainsharing opportunity supplementing traditional FFS payments. However, over time this model is designed to put an increasing share of participating providers’ payments at risk and to eventually transition to a more globally oriented payment system. A representative and independent governing body will be critical to ensure fair distribution of shared savings to individual providers, groups and facilities, thereby rewarding performance improvement through the balanced and rational distribution of revenue.

A major challenge with the shared savings model is that there may not be adequate recognition of current performance by early adopters, which may have already developed approaches such that their performance exceeds that of their peers. In such cases, it may be unreasonable to establish quality goals and payment based on the entity’s current performance. The aforementioned Intermountain Health and Geisinger models, which are already performing at a high level, may have more to lose than gain in shared savings models that measure organizations’ results against their own baseline performance. A better approach may be to utilize two options for establishing performance targets: one that requires organizations to exceed their own baseline performance and one that compares an organization’s absolute level of achievement against a standard baseline. The latter approach could use credible actuarial analysis on a national or regional basis to predict what cost increases would have been in a relatively unmanaged setting in the absence of the organization, compared to the actual costs. By being compared against the field, high-performing organizations can demonstrate marginal value. It should also be noted that costs in an FFS system are composed of two distinct components: utilization (number of units) and unit cost (cost per unit). To the extent a legacy fee schedule or historical aberrancy unduly influences the unit cost in the baseline period, the physician’s ability to affect overall cost through judicious management of utilization, the factor more often in the physician’s direct control, may be limited. Separating utilization from unit cost may be necessary to establish meaningful performance targets.

Another challenge of shared savings models is the level of need for upfront capital for infrastructure investments designed to foster clinical integration. The capital requirements are often especially challenging for smaller, physician-led ACOs. However, the level of integration and infrastructure necessary for successful performance in a shared savings arrangement is debatable and probably depends on a variety of factors, including baseline organization, community resources available, the practice model, state laws affecting scope of practice for non-physician staff, and so on. For example, the experience of Accountable Care Associates, described in more detail in Chapter 4, suggests that cloud-based tools for data analytics and sharing information may limit much of the capital and infrastructure investments.

The ultimate success of shared savings models may be directly proportional to how much of the total budget is at risk. As the proportion of the budget linked to shared savings and penalties grows so does the incentive to allocate resources to better care coordination with the expectation that such activity will ultimately avoid costs related to potentially preventable complications and duplicative services. In the long run, the success of shared savings models may prove their undoing as participants reach a point when no marginal cost reduction can be realized. While the ability to share in savings for maintenance of effort (or absolute level of achievement) could partially mitigate this issue, ultimately shared savings models should be viewed as transitional steps towards episode-based or global payment bundles. The following passage from an Accountable Care News article sums up the shortcomings and long-term promise of ACOs: “If incentives are correctly aligned, organic innovations to solve other [clinical integra-

Advanced Payment Initiative—Designed to Help Smaller ACOs

The Centers for Medicare and Medicaid Services (CMS) established the Advanced Payment Initiative to assist smaller, physician-led organizations in overcoming the capital requirements necessary to form an ACO under the Medicare Shared Savings Program. Of the 27 Medicare ACOs with an April 2012 start date, 21 were physician-led according to CMS and 5 ACOs are participating in the Advanced Payment Initiative. This led Medicare to extend the Advanced Payment Initiative to ACOs applying for the January 2013 start date. For more information about this initiative, go to www.innovations.cms.gov/initiatives/ACO/Advance-Payment/.
tion] problems can and will engage” but “early versions of ACO payment incentives are... unlikely to be sufficient to create the needed burning platform.”

**Episode-Based Bundled Payments**

Bundled payments offer the opportunity to restructure the FFS model and its related volume-based incentives into a more rational payment and delivery incentive structure that focuses on care coordination across multiple types of providers. Episode-based bundling is designed to increase efficiency by aggregating the activities of multiple providers—involved in performing a specific procedure or treating a specific condition, with well defined start and endpoints—into a single payment. Given the need for objectively defined and clearly demarcated episodes of care, these type of bundled payments have been easiest to develop for a relatively modest number of procedures for which the Medicare Physician Fee Schedule’s 0-, 10-, and 30-day global surgical periods offered a level of experience.

The episode of care is bracketed into various phases of care, which are centered on a number of trigger events that vary based on the specified condition. One such event, the date of the specified surgical procedure, which often is the focal point of the episode, may or may not even take place depending on treatment alternatives or patient morbidity or mortality. Even without the surgical procedure, there may be a number of pre- and post-acute phases of care that continue to be necessary and reimbursable based on contractual agreement. While transplant surgery is highlighted in the example above, as discussed later, other bundling models exist that demonstrate the application of episode-based payments to common Diagnosis-Related Groups (DRG).

The challenge going forward will be to apply the lessons learned from developing procedural episodes to the more complex task of developing episodes for chronic conditions, which may not have easily identifiable starting and ending points. This process should involve a certain degree of flexibility, as it may not be possible, for any number of reasons, to bundle certain conditions into well defined episodes of care. Providers should not view an inability to develop bundled payments for certain conditions as failure, but rather, as an important part in the process of designing a more efficient payment system that may include multiple payment models, including FFS when appropriate, that coexist in harmony with one another.

**Global Payment Models**

There are numerous forms of this model—partial capitation, virtual capitation, full capitation, and so on. Essentially, global payment models (or global bundles) expand the episode-based bundling model by establishing a prospective payment, that is adjusted based on risk factors, for the full continuum of a patient’s or population’s care over a given time period. This model may be most appealing to physicians who manage the care of a population of patients with chronic conditions who, as noted in the episode-based bundling section, cannot be categorized into easily definable episodes of care. However, given providers’ assume more risk under global payment models, this form of bundling relies on more analysis to accurately estimate total costs and more clinical integration to improve operational efficiency.

The biggest concern with global payment bundles is mistrust from physicians who are prejudiced by the experience of physicians in the 1980s and 1990s who entered into payment arrangements with insurers and managed care organizations which were not financially viable and required draconian limitations on the utilization of services in order to yield promised financial returns. The focal point of this mistrust appears to be the perception of what “capitation” means, combined with concerns over the most costly patients who consume an inordinate proportion of budgeted resources.

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Those who fear this model fail to realize that much of the savings come not from limiting physicians’ services but from reducing or avoiding facility stays, complications and re-admissions. Nonetheless, in recognition of the negative connotations, the authors of this paper have intentionally replaced the term “global capitation” with the term “global payments” or “global bundled payments.”

Moreover, Chart A provides a high-level overview of how “global payments” differ from managed care or capitation. A recent JAMA article similarly asserts that three differences in particular—more knowledge, more data and greater adherence to evidence-based medicine—will lead to more collaboration and more physician control of these new models. A few of the major differences are discussed in more detail below:

1. Clearly defined care management responsibilities.
   Most global bundled payment models clearly define what care management involves, explains where authority is delegated and require reporting of specific quality measures to ensure compliance.

2. Free up the data for performance improvement.
   Successful global bundled payment models require the exchange of data from multiple sources so that doctors and patients are empowered to make decisions based on a complete picture of their care.

3. Local physicians exercise more influence over allocation of global budget.
   This ensures that physicians who oversee the care and those who are called in to handle acute exacerbations or complications will realize appropriate financial rewards for coming in below budget.

4. Greater emphasis on high-quality care provided in a cost-effective manner.
   The AQC puts 10 percent of the entire budget into quality = $50 PMPM for the physician group, which is getting $500 PMPM. Likewise, Medicare’s Shared Savings Program requires participating organizations to achieve specific performance targets on more than 30 quality measures before cost savings are disbursed in the form of additional payments.

As was the case with shared savings programs, the level of integration and the associated infrastructure needed for global bundled payments is debatable. Some believe that vertically integrated employment-based models make global payment systems much more feasible since everything is housed under one roof. While this may hold true in certain situations, the form that integration takes is largely dependent on state laws and regulations, and local market characteristics. Examples abound of Independent Physician Associations (IPA) and other practice models that bestow the benefits of clinical integration while allowing independent physicians to maintain their practice autonomy. The glue that seems to hold most of these models together is some entity, application or service that enables physicians and other stakeholders to share and analyze data (in a transparent fashion) for the purpose of performance improvement. This may be an integrated EHR or it may be a cloud-based application that allows virtually integrated groups to share data—to be most effective, payers must also be transparent in sharing their payment and utilization data.

Global Bundled Payment Models: The Need for a Shared Governance Structure

The main advantage with vertically integrated employment models is that they typically have a preexisting shared governance structure that ensures equitable distribution of resources among various providers and fosters individual and group-level accountability. In integrated models that include both physician practices and inpatient facilities, shared governance is critical to foster goal alignment and minimize anticompetitive practices. For the same reasons, virtually integrated arrangements established to allow independent providers to share data under a global bundled payment model must also include a degree of shared governance and shared accountability. One option would be to form an IPA, thereby ensuring adherence to practice standards, the use of common metrics and benchmarks, and processes for resolving ethical dilemmas, treatment decision disputes and financial tensions.

In summary, the payment model most appropriate in any given community—regional, statewide, multi-state—will depend on the unique mix of physicians, other components of the delivery system, payers, community resources and other
stakeholders exerting influence. Moreover, since these payment models are not mutually exclusive, some communities may develop a hybrid approach that includes a combination of FFS, episode-based bundles and global payment bundles. What is clear is that successful models typically encourage the type of team-based, seamless and coordinated care that is essential to the value proposition.
Chapter 3: Challenges to Transitioning to Value-Based Payment Models

This chapter serves to both recap and more thoroughly address many of the challenges (introduced in the preceding two chapters) inherent in the transition towards value-based payments. These include resolving what it means to deliver value-based care, defining the episodes of care and time period, building the requisite technological infrastructure, determining payment attribution, resolving issues associated with risk adjustment, defining and aligning the measures, physician leadership, and so on.

By honestly discussing these challenges and offering potential solutions, Chapter 3 paves the way for the last two chapters on the fundamentals or “keys” to transitioning to new payment models and real world examples.

Establishing an Accurate Definition of Health Care Value

A basic definition of value (V) is quality (Q) per unit cost (C) or V=Q/C. This implies that value can be optimized by either increasing quality (better outcomes, customer satisfaction, etc.), or decreasing cost for a given level of quality, or both improving quality and decreasing unit cost. While recognizing that value can never be based solely on lowest cost, this equation fails to factor in appropriateness of care. Appropriateness is a quintessential component of value, the deficit of which drives both variation in cost and quality. For instance, delivering high-quality, low-cost care when not indicated cannot possibly be equated with high value (even though it might strictly meet the definition) if the way quality is defined does not consider this factor. Likewise, overuse, underuse and inappropriate use of diagnostic and therapeutic interventions not only result in wasteful deployment of resources, but also can be harmful to patients. While appropriate care and high-value care are inextricably linked, many performance measures either ignore appropriateness or implicitly undermine it. A case in point would be measures of patient-centered care that could unintentionally encourage the pursuit of unproven or futile (and expensive) treatments in an effort to appease patients and/or their family members. In such cases, the physician may not have enough knowledge or perceive herself to have adequate authority to restrict the provision of the requested services. Revamped guidelines and measures that include appropriate use criteria may partially address this problem, but ultimately physicians are tasked with making treatment decisions that reflect the best available medical evidence. Requests to pursue alternative treatment plans of little or no value must be balanced against the professions’ stewardship of scarce health care resources.

Thus, the first challenge relates to expanding the definition of value to: quality per unit cost, for a desired outcome, in the context of appropriate use. Using this definition, the desired (or appropriate) outcome would need to be defined for each condition with enough flexibility to account for alternative treatments or therapies. This expanded definition would account for high-quality and cost-effective care that is appropriate for a desired outcome that correlates to a specific set of indications and contraindications. The challenge will be to conform this definition of value, which is physician-centric, to patients’ perception of value.

Patients often have a paradoxical perception that quality is higher if the cost (price) is higher, regardless of whether the proposed treatment might be the most appropriate for the particular condition. For example, many patients have been conditioned by the media to believe the latest miracle drug,
device or technology is better than more established (and less costly) care. Patients’ willingness to pay substantially more for brand-name drugs, for example, than for generic over-the-counter and therapeutically similar products may be influenced by direct-to-consumer advertising. So the challenge becomes finding the “sweet spot” where patients’, payers’, and physicians’ definitions of value coalesce. This will require physicians (as educators) to steer their patients in the appropriate direction so that true patient-centered care replaces misleading information presented to patients in advertisements and through other marketing. In summary, while everyone uses the equation V=Q/C, true value must include appropriateness and desired outcomes.

Building and Implementing the Technologic Infrastructure Necessary to Support Value-Based Care

For value-based health care to work, physicians, payers, hospitals, patients and other stakeholders must have the ability to share all relevant information, in an accessible manner that is integrated into the ordinary workflow, at the point of care. This will require significant improvements in current health information technology, the development of which can be divided into three stages. The first stage includes mature technology, such as practice management systems, designed to improve scheduling, billing and coding accuracy, and revenue cycle management in an FFS environment. The second stage of health information technology, which is designed to foster health information exchange (HIE) and clinical decision support, is the development of EHRs and other data sharing system. This technology is not yet mature given the challenges related to building interoperability infrastructure that will pool claims and clinical data across systems and settings. Cloud-based data warehouses from which EHRs can extract then analyze necessary data may be one solution. Given that many EHRs have proven incapable of extracting relevant data for providers to use at the point of care, a cost effective alternative may be cloud-based data sharing solutions that combine the storage capacity of data warehouses with analytic capabilities exceeding most EHRs.

Population-based health management systems, the third stage of health information technology, are still in the early stages of development. These systems are designed to integrate the practice management, patient stratification, clinical risk quantification, attribution methodologies and the HIE capabilities of the first two stages. Other capabilities will likely include telehealth services, intelligent scheduling and patient monitoring across settings. The speed and, ultimately, the success of health care delivery and payment redesign will be dependent upon access to and implementation of these technological capabilities within clinical practice.

Defining the Episode and Time Period for Purposes of Payment Attribution

Both episode-based bundles and global payment bundles are a form of capitation—the main differences have to do with who and what is included in the episode and for how long. Under episode-based bundling, it can be difficult to track everyone’s contribution to care, especially for chronic disease episodes where there are not well defined care teams or endpoints. These challenges become more pronounced in older patients as the number of conditions and providers

Geisinger’s Current Proven Care® Model

Geisinger Health System’s Proven Care® Model may offer some lessons on how to move beyond a relatively limited number of surgical bundles. This global bundled payment model guarantees adherence to specific clinical standards (or care processes) relevant to each episode and includes a patient compact that lays out both the provider’s and the patient’s responsibilities. In turn, Geisinger warranties these episodes by not charging for related readmissions or complications.

The two non-procedural episodes—low back pain management and chronic kidney disease (CKD)—suggest that Geisinger has overcome some of the challenges with building episodes around chronic conditions. Assuming that Geisinger has been able to clearly define these episodes and address challenges related to attribution, payment control and risk-adjustment, the question becomes: is their approach replicable in a non-integrated community setting?

Current Proven Care® Episodes

- Coronary artery bypass
- Bariatric surgery; RYGB
- Total hip replacement
- Cataract removal
- Percutaneous coronary intervention
- Perinatal care and delivery
- Low back pain management (non-procedural)
- Total knee replacement
- CKD and erythropoietin (non-procedural)
- Lung cancer resection
treating those conditions increase. Challenges associated with attribution also may exist under a global bundled payment model but although there is not the need to define a discrete episode since all of the care that the patient receives over a given time period is included. In essence, this also is the main concern with global payments—the ability (or flexibility) to manage all of the care that patients receive also exposes providers to more risk when things go wrong. However, with greater risks also come greater rewards. By virtue of their scope, global bundles offer the potential to realize significant performance improvements (and cost savings), which can eventually translate into financial rewards, beyond what is possible under any other payment model.

The success of the Geisinger Proven Care Model (see example above) and efforts of a project team led by Brandeis University to pursue an episode grouper option for CMS suggest that it may be possible to overcome the challenges associated with developing chronic disease episodes. The Brandeis University project team, which includes the AMA, ABMS-REF and HCI3, developed the Patient-Centered Episodes System (PACES) prototype to group health care costs and services into overlapping and concurrent episodes of care. By doing so, PACES episodes of care should help physicians understand how costs and utilization can be attributed to different providers across episodes of care. Such an understanding is critical to determine payment attribution. Moreover, by capturing the vast majority of Medicare payments the episode grouper system is intended to help address the challenges associated with developing chronic disease episodes and other non-procedural episodes in an episode-based bundled payment model.

**Attributing Care to Individual and Multiple Providers**

Another challenge has to do with attribution of care for purposes of determining both clinical performance and payment. P4P and care management payments typically address this challenge by attributing care to individual providers based on a fairly straightforward assignment. Shared savings payments also tend to focus on the individual physician although they begin to move in the direction of more team-oriented attribution methodologies. The problem with single-source attribution is its failure to account for all of the other care a patient receives. This could result in patients being attributed to physicians whom they see sporadically and may not even recognize as their “true” physician. Additionally, single-source attribution may create a culture that is confrontational and counter to that of team-based, coordinated care.

Hospitalized patients introduce a new challenge in that questions arise as to whether care should be attributed to the primary care physician, the attending physician or to a specialist who is addressing an acute problem. One option may be to employ a more team-oriented attribution approach under episode-based or global bundled payment models, although as discussed generally in Chapter 2, both of these models have their strengths and weaknesses. For example, how do you attribute care of the patient who shows up in the ER with diverticulitis requiring surgical consultation and care, who also has a hospitalist assigned to manage diabetes, and a primary care physician who provides ambulatory care but whose involvement in the episode is minimal? These challenges require analysis of coding and clinical data during the development and periodic updating of the episode logic.

Employment models, like those at Mayo, the VA and Geisinger, obviate these challenges by paying each provider a salary that presumably represents their contribution to care but avoids directly addressing payment attribution. This model is probably not viable in the vast majority of practice settings. In the typical community setting, payment attribution must address independent providers—clinicians and facilities—and may involve difficult and sometimes contentious negotiations.

**Defining the Quality and Cost Measures to Ensure Value-Based Care Delivery**

All of the value-based payment models described in Chapter 2 link back to quality measures as a means to ensure that patient care is maintained (or improved) even as efforts are made to reduce costs. Providers’ compensation potential, including shared savings, under these models is contingent on meeting specified benchmarks for measures of clinical performance. This mandatory focus on quality makes these new payment models distinctly different from the Health Maintenance Organizations (HMO) that were prevalent two or three decades ago. It also, however, leads to the challenge of selecting the measures that are most appropriate for the specific model given the patient population, sample size and other demographic variables.
Despite the numerous process measures developed over the past several years, there is still a relatively small portfolio of outcomes measures and even fewer composite measures that can be used to assess the performance of multiple providers involved in an episode of care. Failure to acknowledge and address these information gaps would likely result in repeating past mistakes. Lessons may be learned from organizations that have realized success in this area, such as Geisinger’s Proven Care® Model, although the replicability of these models in a non-employed physician environment is unclear. Ultimately, the solution to the measurement challenge is likely to come from clinical integration that identifies QI opportunities by using technology, such as population-based health management systems, to accurately analyze and share data across settings. Through these efforts, the Physician Consortium for Performance Improvement and other measure developers will be able to identify scalable outcomes measures and spread clinical best practices.

Robust quality registries (or databases) also could be part of the ultimate solution. The American College of Cardiology’s (ACC) Pinnacle Registry® (https://www.pinnacleregistry.org/) believes that lower complication rates and more efficient resource use can be achieved for cardiac surgery. VCSQI members evaluate quality improvement opportunities utilizing a unique database that combines standardized clinical outcomes data from the STS National Cardiac Surgery Database that is matched with discharge financial data (UB-04). Process improvement initiatives are reviewed quarterly and cost savings are routinely calculated. The VCSQI instituted a pay-for-performance program and gain-sharing models with a major payer in the region, thereby aligning incentives for physicians, hospitals and payers. As a proven QI program that has achieved dramatic reductions in the complications and costs of cardiac surgery, VCSQI is a working model for regional health information sharing and grassroots quality improvement. A. Speir

Applying Valid and Credible Risk Adjustment/Stratification Methodologies

The challenge associated with risk adjustment is the need for a methodology that accurately measures and accounts for the severity of illness as a means to ensure that physicians who treat sicker and/or more complex patient populations

Moving Beyond Individual Physician Risk Adjustment: A Regional Solution

One solution that may get around the challenges associated with individual risk adjustment modalities would be to do it regionally. A region-wide value-based modifier (or risk adjustment factor), if based on accurate data and accepted by providers, could incentivize coordination across specialties, groups, and settings of care. Such a modifier, which could set aside revenue in FFS or bundled payment models, would effectively combine physicians, hospitals and other providers into a single value quotient for the region.

Ideally, this would encourage high-performing groups—for example, the Mayo clinics of the world—to share best practices with low-performing groups as a means to raise everyone’s value score. In more densely populated and heterogeneous urban areas, it may be preferable to look at smaller geographical units on which to adjust for value. While this approach may be unpalatable to many physicians, it offers the potential to sustain or even increase current payment levels, unlike a cut to the Sustainable Growth Rate (SGR). P. Amadio (Appendix B)
are not unfairly penalized under value-based payment models. This will be particularly critical for physicians, most of whom operate on small margins and thus are not able to accept significant financial risk, to make the transition to value-based payment models.

To date, no risk adjustment methodology has been able to account for all variation, recognizing that some variation is caused by inappropriate care rather than patient risk factors. Thus, the challenge associated with physician-level risk-stratification becomes two-fold: the need to adjust for patient risk factors while not adjusting for inappropriate care or for actuarial risk (e.g., insurance risk) that is beyond physicians’ ability to control. While no risk-adjustment methodology will be able to account for all risk factors, the methodology selected must be accurate enough to overcome the reservations of a skeptical physician community.

The aforementioned PACES project also is tackling the issue of risk adjustment by, starting with a trigger date, estimating expected costs of each episode in 90-day increments. Estimated costs for chronic diseases will be added together per quarter throughout the episode duration. Typical and complication costs are estimated separately and then summed for each patient by factoring in three risk categories—demographic, comorbidity and severity attributes. A fourth category for “potential end of life” within the next 90 days will provide an additional layer of risk adjustment to further refine the cost estimates.

Regardless of how it’s done, a sound risk-adjustment methodology is essential to the success of new payment models. That said, funding for collection of risk-adjusted data should be identified in advance and the data collection methodologies should match program goals. The experiences of the transplant community (see Appendix A) are a lesson of the unintended consequences that can result if funding is not secure and if the data collection methodology is no longer consistent with program goals.

Overcoming Antitrust and Privacy Concerns

The data requirements of these new payment models raise important privacy concerns that will require safeguards to prevent inappropriate disclosure of patient information. The requisite safeguards are addressed in the Security Rule of the Health Insurance Portability and Accountability Act (HIPAA). Also, clinically integrated networks that emerge to leverage the power of data to improve performance across practices and settings may lead to antitrust concerns insofar these arrangements are inappropriately used to leverage favorable payment rates in negotiations with payers. These concerns make it critical for providers who join IPAs and other horizontally integrated models, to understand the entity with which they are sharing information and the safeguards around how information is used.

That said, antitrust and other regulatory reforms should be revised to encourage data sharing and other innovative processes that offer the potential to increase value while discouraging innovations that are designed primarily to increase leverage in payment negotiations. For example, the Federal Trade Commission in collaboration with Medicare has established new safety zones in federal antitrust enforcement as a means to encourage participation in the Shared Savings Program, and the Office of Inspector General has issued a series of waivers from certain fraud and abuse statutes, such as the Anti-Kickback and Stark laws. These exceptions and waivers should be broadened where appropriate to cover the full range of innovations in health care delivery and payments that are designed to improve the quality and reduce the costs of care.


The Piedmont Clinical Information Trust (CIT)

The Piedmont CIT is a partnership between a horizontally integrated network of 600 physicians and Recombinant Corporation, a health analytics vendor with the following core competencies: 1) clinical data warehousing; 2) reporting & analytics; 3) data strategy, governance & compliance; and 4) open source software. Through this partnership, raw clinical and claims is funneled into the CIT where Recombinant’s expertise in data warehousing and analytics is critical. Working with a Governance Oversight Committee and Security Officer, the CIT ensures compliance with federal privacy and antitrust requirements. Pertinent data is then shared with physicians for clinical decision support at the point of care. For more information, go to www.hsi.gatech.edu/video/hsirss/gthsi_20110406.pdf. G. Maccioli (Appendix E)
Application of Performance Data: A Matter of Leadership

The need for accurate and credible data gets to the core of why attribution, episode definitions, quality measures selection and risk adjustment are critical challenges that must be overcome before proceeding down the road of delivery and payment system redesign. However, even after these challenges are overcome, the biggest obstacle to implementing value-based payments may be some physicians’ own perceptions of how they view their quality as well as their reluctance to change established workflow and care processes. As one former CMS official put it, some physicians have a tendency to explain lower quality and/or higher cost care by overusing the 23rd Psalm—“My patients are older, sicker, more complex and take more time”—with little or no evidence to support this assertion. Physician leadership will be required to overcome these ingrained preconceptions and to create a culture of continuous, data-driven quality improvement.

In order to foster lasting change, physician leaders must educate their skeptical colleagues on the potential of technological solutions to analyze and ultimately use data in novel ways to improve care delivery. Most physicians intrinsically already are data-driven so, if a trusted colleague shows them credible data indicating opportunities for quality or efficiency improvement, they may be more inclined to take corrective action.

Alignment of Physician and Hospital Measures and Goals

The ability to analyze and share data must be paired with appropriate measures to maximize providers’ ability to improve their performance and increase value to the system. Measures must not only be valid, credible and actionable but also, when possible, aligned across providers and settings. The National Quality Strategy (NQS), National Priorities Partnership (NPP) and Measure Applications Partnership (MAP) are doing important work in this area but specific payment policies may be needed to foster lasting change.

Determining Which Physicians or Services Do Not Fit into New Payment Models

Ezekiel Emanuel, an oncologist by training and former Obama administration official, acknowledged at a recent health policy forum that 25-30 percent of health care services will continue to be paid through FFS once the payment reforms mandated by the Patient Protection and Affordable Care Act are fully realized. Thus, the challenge of determining which physicians or services do not fit into new payment models must be confronted in order to move forward.
As previously noted, rural physicians who do not have access to the infrastructure necessary to support value-based models and who may have little opportunity to integrate specialty care in a meaningful way with their practice may continue to be paid under an FFS model. Also, there are many health care services with intrinsic value that do not easily fit into the aforementioned value-based payment models. For example, physicians frequently render their consultative expertise to colleagues who are dealing with a particularly challenging case or to patients who request a second opinion. It may be that the services of infectious disease specialists, diagnostic radiologists and other physicians who serve in strictly consultative roles should continue to be paid through FFS with a performance bonus contingent on good outcomes.

TransforMed Health Care Innovation Project

A non-profit subsidiary of the American Academy of Family Physicians, TransforMed partnered with with 12 VHA-affiliated hospitals to develop a winning proposal for a Health Care Innovation Challenge Grant from CMMI (http://innovations.cms.gov/initiatives/Innovation-Awards/index.html) to support healthcare delivery redesign. Specifically, grant money will support care coordination among PCMH practices, specialty practices and hospitals—in essence, creating “medical neighborhoods.” The project will use a sophisticated analytics engine to identify high-risk patients and coordinate care across the medical neighborhood while driving PCMH transformation in a number of primary care practices in each community. It is unclear whether financial rewards will be provided to both participating primary care practices and specialty practices. Health Care Innovation Challenge Grant Profiles (CMMI, June 2012)

Breaking Down the Barriers to Care Coordination for Both Primary and Specialty Care

There has been much emphasis over the past several years on the role of primary care physicians in ensuring high quality care and transitions across care settings. Much of the discussion has revolved around non-face-to-face services that are integral to coordinating care but for which little or no FFS reimbursement is available. A recent analysis of the Medicare Coordinated Care Demonstration revealed that meaningful FFS reimbursements ($125-$150 PMPM) for care coordination services “can reduce hospitalizations over multiple years if they are directed at beneficiaries with chronic conditions with a high risk of near-term hospitalization.”

These discussions have touched on an important issue but have largely ignored the role that specialists also may play in coordinating care, an issue that was also mentioned in Chapter 2. If Medicare and other payers are serious about creating a payment model that is intended to improve care coordination, existing FFS care coordination codes, which can be billed by all physicians regardless of specialties, should be covered; appreciating that payments for other services might be decreased to maintain budget neutrality. The Medicare Payment Advisory Commission recently acknowledged this policy option, which numerous physician groups support, in its June 2012 Report to Congress.

As the transition is made to value-based payment models, more serious consideration should be given to concepts that recognize the role of both primary care physicians and specialists in coordinating care, such as the PCMH-Neighbor. TransforMed’s successful application for an Innovation Challenge Grant appears to recognize the need for both primary care and specialty recognition under a medical home model although the type or level of financial incentives that will be available under this project have not been defined. Finally, the efforts of the Chronic Care Coordination Workgroup (C3W), which has been working to develop short and long-term coding solutions that would encourage care coordination, should receive more serious consideration. In fact, Medicare’s CY 2013 Physician Fee Schedule proposes to cover care transition from the hospital to the community, as recommended by the C3W. Please go to the following URL for more information about the C3W Workgroup’s specific recommendations: http://www.ama-assn.org/ama/pub/physician-resources/solutions-managing-your-practice/coding-billing-insurance/medicare/care-coordination.page.

Balancing Provider-Level Accountability with Patient Accountability

Much attention has been paid and significant resources have been expended in efforts over the past several years to increase provider-level accountability as we move from an FFS model to a more value-oriented approach. Often overlooked in efforts to increase value is patient-level accountability.

This both misses an opportunity and fails to acknowledge the fundamental role of patients in ensuring their own health. First, patients are consumers and, as such, they react to prices. While insurance historically has buffered patients from large fluctuations in health care price, this buffering effect has diminished in recent years as employers have passed on steadily rising health care costs to their employees in the form of high-deductible health plans. The Great Recession offers perhaps the starkest example of the impact of cost shifting as households’ share of health care spending fell by 1 percent in 2009. More recent data from the IMS Institute for Healthcare Informatics suggests that this trend is continuing as the use of prescription drugs fell by 1.1 percent and physician visits fell by 4.7 percent in 2011. While these decreases are partly due to the economic duress and uncertainty caused by the Great Recession, not to be dismissed is the impact that steadily rising health care costs (deductibles and co pays) had on employed consumers’ decision making.

Patients should be held accountable for choices that contribute to certain outcomes or that significantly impact the cost of care. However, it also is important to recognize that there must be some protections built into patient accountability programs so as not to discourage patients from seeking needed care or preventive services. For example, reward-based incentive programs developed to promote healthy lifestyles should be guided by certain key principles, such as: incentive programs should reward behaviors, not health status; programs should be designed to assess and address risk factors as well as current health status; and confidentiality of program participants must be maintained.

Nevertheless, incentives should be integrated into an ongoing risk-reduction and behavior change program to encourage and support long-term changes in habits and behaviors. When appropriate, benefits should be redesigned to turn patients into active partners in the medical decision making process, not simply demanders of more services. This is particularly important given the emphasis on patient-centered shared decision-making now in vogue.

13 A. Martin et al. Recession Contributes To Slowest Annual Rate Of Increase In Health Spending In Five Decades. Health Affairs, Vol. 30, No. 1, January 2011.
Chapter 4: Fundamental Elements to Transitioning to New Payment Models

While there are numerous challenges associated with new payment models, there also are fundamental elements that will smooth the transition for physicians interested in taking the leap.

New Models Should Not Adopt a One-Size-Fits-All Approach

Perhaps the first thing to keep in mind is that no payment model will work for all of medicine, so a flexible approach will be critical for success.

Most physicians are likely to transition towards episode-based or global bundled payment models that encourage more integrated, less fragmented and, ultimately, more efficient care. However, even these models must be designed to coexist with one another as well as a smaller FFS system that will continue to play a critical role in paying for high value services that do not fit into the new models. Thus, while the remaining fundamental elements are focused on explaining “the rules of the road” in the transition to the two types of bundled payment models, as Chapter 5 will discuss, it is not likely to be as clear cut as choosing one or the other.

Moreover, all physicians will not be prepared to engage in new models simultaneously. Some practices and individuals will be prepared to proceed immediately while others will need more time to prepare and to convince their colleagues. Thus, opportunities for physicians to engage should be available on a rolling basis so that successful innovations can build off each other, eventually establishing a feedback loop that encourages ongoing and sustainable change.

Picking the Payment Model: Episode-Based vs. Global Bundles

Both forms of bundled payments have their advantages and disadvantages. Most experts agree that episode-based bundled payments are easiest to develop around procedures that involve relatively easy-to-define episodes of care, whereas chronic conditions may be better suited for global bundled payments.

Episode-Based Bundles

For physicians who intend to engage in an episode-based bundling approach, it may help to identify several high-cost (or volume) elective procedures in which the trigger events, phases of care, and interactions with other specialists appear straightforward. Such procedures will likely reveal the greatest quality improvement and cost savings opportunities and, by virtue of clear definitions, will be easier to attribute payments among physicians and other providers. For example, the pre-acute phase of care might be defined anywhere from the time of initial presentation of symptoms to a primary care physician to the point of referral to a specialist. The specialist could be an internist who initiates the medical management before referral for a surgical consultation or a definitive procedure. Alternatively, the episode might start with the first visit to the surgeon or when the decision to operate is made, appreciating that this may abrogate the opportunity to affect some cost savings through better management in the diagnostic phase of the episode. At a minimum, it is recommended that the episode begin 24 hours prior to a procedure or hospital admission in order to account for diagnostic studies that are clearly part of the episode being addressed. The acute care period would consist of the hospitalization “net of the pre-acute care period” and would end at discharge. Similarly, the post-acute care period would begin at discharge and extend for a finite period of time. This might be as short as 10-90 days as is customary for most global surgical periods or 6-12 months (or longer) for conditions that involve post-operative adjuvant therapy. Regardless, a clear definition of the various phases of “bundles” will be essential and, moreover, payment models may need to be developed for each phase to fit the performance risk (or the risk related to the procedure and postoperative care).

Global Payment Bundles
For physicians who intend to develop global payment bundles, a good place to start may be chronic diseases that have significant variability in terms of the cost and quality of care. Like episode-based bundles, the selected conditions should be supported by high-level medical evidence that demonstrates opportunities for quality improvements and cost avoidance with optimal management. To minimize uncertainty (or risk) associated in establishing a global payment or projected budget, it may be necessary to account for catastrophic cases through some type of reinsurance or stop-loss arrangement where the risk-assuming entity has some measure of financial protection for those costs that wildly exceed the average. It must be appreciated that such protection will typically require a reduction in the global payment in order to account for such catastrophic cases; all of the costs must be considered in this model. While such allowances would have to be negotiated in advance with the payer, they should “insure” providers against significant shared losses. Population-based health management systems, the third stage of health information technology development, ultimately should allow for sound actuarial modeling under a global payment model.

Finally, under both bundling models, the procedures or chronic condition should be supported by high-level medical evidence that demonstrates opportunities for quality improvements and cost savings with better management. Medical evidence must be applied using analytic tools that can show where quality is falling short or costs are too high. Please see Chart D for a step-by-step illustration of how to build global payment bundles.

Determining Who Controls the Purse Strings
Under episode-based and global payment bundles, the issue of control is the first issue that needs to be addressed and most likely to involve difficult and contentious negotiations between various providers. As was mentioned previously, working with other provider groups to establish independent legal entities, with representative governing bodies may be one way for physicians to exert a degree of control when hospitals are involved.

Given that global payment bundles tend to focus on the full complement of care, the vast majority of which is not facility based, the issue of who (or what) controls the budget—and assumes financial risk—and determines payment distribution is less problematic. Primary care physicians in such models typically exercise a degree of influence in deciding how global payments are allocated and get credit for improved quality and avoided costs (or suffer losses in the event of deteriorating quality and higher costs). Hospitals and other non-primary care providers are able to focus their resources on developing highly efficient acute care service lines that attempt to avoid readmissions, reduce complications and decrease overhead costs. Competent and efficient specialists should realize higher profit margins and, eventually, garner more referrals as primary care physicians appreciate their efficiency and consumers, including an expanding elder population, have increased access to publicly reported performance measures that distinguish high-value providers.

However, episode-based surgical bundles are likely to involve hospitals and other facility settings in which physicians will have significant input but not full control of how the payments are distributed. Hospitals’ ability to accurately cost account and budget coupled with their capital resources may often place physician practices at a distinct disadvantage in negotiating revenue distribution. Moreover, physicians often face the added complexity of having to negotiate among themselves given that several physicians are often involved in the treatment of a single patient for a single episode.

Attributing Payments Among Providers
In a world with limited resources, any payment attribution scheme will result in mostly satisfied participants. This fact must be accepted from the beginning so that stakeholders can then work together to develop the scheme best suited to their particular model. As practice changes, distribution schemes may need to be periodically reevaluated and updated. Given obvious sensitivities, this process requires full transparency, accurate data and recognized standards of practice.

In the case of physician-to-physician negotiations, the Resource-Based Relative Value Scale (RBRVS) may be an appropriate starting point as long as adjustments are made to reflect the benefit of non-face-to-face services and non-clinical work. Under episode-based bundling, one option would be to divide providers into “tiers” for the purpose of payment attribution—within one or more of the tiers, a care management component could be factored into the episode
by attributing more payments to physicians who ensure appropriate follow-up care and seamless transitions.

For example, first-tier providers who are involved in every case would receive some percentage of each case’s total reimbursement based on historical data that may include Current Procedural Terminology® (CPT) codes, International Classification of Diseases (ICD) codes and other data sources that are not well recognized under the FFS model. Third-tier providers who are almost never involved would be paid according to pre-negotiated rate from a “payment kitty” that is set aside to cover the costs associated with rare complications. In the vast majority of cases that do not involve third-tier providers, the funds set aside for the kitty would be redistributed according to first- and second-tier methodologies. The table above describes how tiering attribution works under a episode-based bundled payment model for kidney transplant.

While a tiering approach to attribution has been used successfully in the transplant community, most episode-based bundling models employ attribution modalities that are similar to those used by global bundling models. Namely, emphasis is put on establishing a joint governance structure as a means to regulate relationships between stakeholders, to ensure fair payment amounts, mutually agreeable approaches to payment attribution and adherence to evidence-based clinical quality and efficiency measures.

In order to encourage participation by primary care physicians and principle care specialists, global bundled payment models often offer payments that are the equivalent of some marginal percentage above traditional FFS as compensation for providing care coordination services and other high-value services that currently are not recognized or under-reimbursed in the FFS environment. These enhanced payments should be funded through shared savings that result from team-based and patient-centered care that

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**Tiering Attribution at Northwestern for Kidney Transplants**

<table>
<thead>
<tr>
<th>Level</th>
<th>Level of Involvement</th>
<th>Specialty Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1 Providers</td>
<td>Services are &gt; 95% of the time</td>
<td>Surgery, nephrology, anesthesia, path, lab</td>
</tr>
<tr>
<td>Tier 2 Providers Common Complications</td>
<td>Services are 5-95% of the time</td>
<td>Infectious diseases &amp; cardiology</td>
</tr>
<tr>
<td>Tier 3 Providers Rare Complications</td>
<td>Services are &lt;5% of the time</td>
<td>Neurosurgery, cardiac surgery, orthopedics</td>
</tr>
</tbody>
</table>

*M. Abecassis (Appendix A)*

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**The Virginia Cardiac Network: Past Lessons Application in Future Bundling Models**

The Virginia Cardiac Network was a limited liability corporation (LLC) established to deliver consolidated care for multiple cardiovascular DRGs. The network included INOVA Health System, cardiac surgeons, interventional cardiologists and electrophysiologists in metropolitan Washington, D.C. A joint governance structure among all stakeholders was developed with bylaws that clearly defined the financial commitments, infrastructure and level of support.

The negotiated bundled contracts with the regional managed care payers were held by the LLC. Payment amounts and attribution were determined among the health system and providers. The underlying assumptions were annually reviewed to reflect current fair market rates and clinical outcomes—all parties had to remain accountable for clinical excellence to minimize the challenges associated with free riders. Consultant rates were negotiated with the subspecialists, which were paid at 110 percent of Medicare from monies withheld from each contract.

Transparent clinical outcomes matched with the cost of each case were collected and reviewed on a monthly basis with process improvements determined by the outcomes. This payment methodology was widely accepted by all stakeholders. *A. Speir*
avoids unnecessary admissions, tests, procedures and complications; when this model is functioning as designed, fees to specialists should not have to be reduced to allow for higher fees to primary care physicians. This should allow both primary care physicians and principle care specialists to spend more time attending to the care coordination needs of patients who need them most—those with complicated acute or chronic conditions—thereby enabling practices to further reduce costs, which offers the potential for additional shared savings.

Another option, which may be appropriate under a global payment model, would be to allow the physician or group accepting financial risk to negotiate with specialists and other providers for services that the risk-bearing entity is unable to provide. Such collaborations should be fostered by a focus on ensuring quality and efficient care that is inherent within global payment models—the risk-bearing entity is rewarded for arranging for the provision of needed specialty services that it does not have the expertise or the ability to directly deliver.

While there will be winners and may be some losers under episode-based and global bundled payment models, if implemented carefully, the reimbursement changes should be manageable. Moreover, as previously noted, significant demographic changes due in part to an aging population could enable high-value providers to significantly increase their referral base as better informed patients come to recognize that more care does not always mean better care.

**Data Collection and Analysis**

Data collection and analysis under both episode-based and global bundled payment models are important to accurately estimate the prospective budget, to determine the included services and providers, and to identify QI opportunities. These capabilities are particularly important under a global payment system, given the risk of underestimating the global budget.

Data should be collected using specified CPT and ICD codes. Each CPT billing code should include a pre-, intra- and post-acute care time period that defines the involvement of each “provider” associated with the bundle. Further and more granular data should be collected regarding relative payments to the various providers involved in the case. For example, payments to first tier and, to a lesser degree, second-tier clinicians should be based on their Relative Value Unit (RVU) data to the extent possible. Although, as previously noted, a key benefit of both types of bundled payment models is the flexibility to use episode grouper technology and to bring in other data sources for the purpose of distribution, attribution and quality measurement.

Equally important to collecting clinical quality, cost and claims data necessary to build the bundle is the ability to analyze and present it in a way that is meaningful to the individual provider. With this in mind, some consideration should be given to stratifying payments based on co-morbid conditions, severity of specified illness (staging of colon cancer for instance), and possibly regional variations in practice patterns. Also, the fact that practice changes over time—for example, first-tier providers today may become second tier providers as technology makes certain care processes obsolete—should mandate a periodic re-assessment of the relative distribution of payments among providers.

A common misconception is that the data collection and analytics necessary for episode-based and global bundled payment models makes an integrated EHR a necessity. Although EHRs may provide a useful (albeit costly) interface through which to view clinical data, as previously mentioned, their analytic capabilities are limited by their primary use as FFS billing and coding tools and the challenges associated with establishing robust HIE networks.

Alternatively, cloud-based data sharing applications offer the potential to aggregate data from multiple sources as a means to provide intelligent and risk-adjusted data extracts that can be customized to the individual physician and patient, much like a Global Positioning System (GPS) can be customized to point the individual driver in the right direction.

Also, unlike integrated EHRs, cloud-based data sharing systems need only a secure Internet connection and web portal to access the necessary information. However, for these data sharing systems to work and for new payment models to bend the cost curve, Medicare and other payers must overcome their reluctance to share data and physician must demonstrate their commitment to use data as a means to increase value.
Cloud-Based Data Sharing: The Experience of Accountable Care Associates

Accountable Care Associates (ACA) provides claims and clinical data management and web-based clinical information sharing to networks of 250 PCPs whose panels’ collectively cover 500,000 patients, including 35,000 patients in global bundling arrangements. One fourth of the PCPs are still on paper charts, with the remainder using one of 11 different EHRs that do not exchange information with each other or with hospital EHRs. Over 30 percent of the PCPs are in small practices of 3 physicians or less.

ACA has been able to achieve consistently high outcomes by all physicians in its networks regardless of whether they have an integrated EHR or their level of experience with managed care models. These results are consistent across patient populations of varying income levels and disease states. Results from the AQC in Massachusetts revealed that large groups with expensive EHRs actually performed worse than members of ACA’s cloud-based network.

The key to ACA’s success is simplicity and mentorship. First, it typically takes only 3 months for new practitioners to learn ACA’s cloud-based data sharing systems, and no additional equipment or financial investment is required of participating practice. Our web-based information sharing tools allow practitioners on different systems to communicate with each other, and improve care coordination. Second, ACA puts a premium on identifying practice leaders who are respected by their colleagues and willing to “teach” the merits of the new data sharing tool. All barriers to starting these delivery systems are reduced or eliminated. By 6 months all practitioners are able to perform well, and with less variation than before joining. These observations have been particularly pleasing to practitioners in small practices wishing to stay independent, but wanting to participate in—and perform well in—these newer global payment models. P. Gaziano (Appendix C)
Chapter 5: Application of these Payment Models in the Real World

Each of the payment models described previously achieves different outcomes in terms of cost and quality. These outcomes are largely a function of how each payment model apportions risk between providers, payers and patients. A hybrid approach recognizes these nuances and allows separate models to be blended into a functional payment system that ensures patient choice while tempering the level of risk borne by any one stakeholder.

For a hybrid approach to work, it must accurately apportion “technical risk” based on the circumstances of the condition, treatment decisions, and services or procedures. If a patient has a significant degree of influence over the course of treatment (or if a patient’s behavior is a contributing factor to the condition) then that should be factored into the risk equation. Likewise, insurers should assume the risk associated with not covering certain treatments and providers should assume a portion of the risk associated with pursuing a particular treatment. This ensures that all stakeholders share some degree of responsibility for the course of care and thereby the resulting cost and quality.

A Medical Home Hybrid

Chapter 2 made the point that most PCMH payment methodologies included PMPM payments for performing certain care management processes. While such payments may reward the provision of non-covered care coordination services for patients with chronic diseases, the value of such payments is questionable when treating patients with acute conditions or acute exacerbations of chronic conditions. Even for patients with chronic diseases, adding time-limited episode-based bundles together into an ongoing global payment may be an alternative to PMPM payments; this is the PACES approach described in Chapter 3.

Similarly, Prometheus Payment® also has proposed a hybrid approach to PCMH payments that uses a combination of FFS for payments for underused or low-risk services and bundled payments for services that fit into specific Evidence-Informed Case Rates® (ECRs) for chronic diseases. Go to [http://www.rwjf.org/pr/product.jsp?id=42555](http://www.rwjf.org/pr/product.jsp?id=42555) to learn more about the specific approach proposed by Prometheus.

Cornerstone’s Experience: The Evolution of a Multi-Specialty Practice into an FFV Model

Cornerstone Health Care, P.A. is a >340 provider IPA in the Piedmont Triad region of North Carolina that has 85 locations in 16 communities. Its physicians practice on staff at 15 separate hospitals that are part of eight separate health systems.

In 2011, Cornerstone’s physicians voted by an 85 percent majority to transition from an FFS to a value-based model that is focused on population-based care management. This transition has required substantial investment in the redesign of clinical care, information infrastructure and contract negotiations. A capital investment of $20 million has been incurred to fund these innovations.

Cornerstone sees its success as dependent upon its ability to create a robust medical home model of care delivery with clinical and information integration. This involves partnerships between primary care physicians and specialists to overhaul Cornerstone’s outpatient service lines to optimize treatment for multiple chronic conditions through co-management techniques that support intensive care for these populations. Moreover, clinical integration partnerships with local systems have enabled Cornerstone to invest in and rapidly deploy state-of-the-art care coordination and predictive modeling software. The conversion of Cornerstone’s contracts to value-based terms is simultaneously underway—this includes commensurate changes in governance as a means to foster physician income stability during the transition. Gain-sharing terms with local hospitals are added when high-value specialty care can be concentrated and contracted. G. Terrell.
An Episode-Based Bundled Payment Hybrid—Lessons from Prometheus

The Prometheus payment model has been working on pre-defined bundles since 2006. This model has seven chronic condition bundles, three acute medical bundles, five inpatient procedural bundles and six outpatient procedural bundles. The high level of experience in the bundling methodology has been appealing to payers and providers and enhances consensus building on defining episodes. Defining bundles has involved looking at components such as: a) service inclusion criteria; b) the time window considered; and c) patient inclusion and exclusion criteria.

Services included are those mutually agreed by payers and providers as those most clinically relevant to the study procedure or condition. One example of this would be physical therapy for joint replacements, since this is always included in the procedure. Payment bundles for diabetes might include procedures where diabetes is a co-morbidity, such as foot amputation whereas the ongoing management of diabetes could be included as part of an ongoing episode (or global payment bundle)—this is essentially how the aforementioned PACES project proposes to bundle chronic conditions.

Episode start and stop periods for procedures begin between 2 and 30 days prior to the procedure and extend to 90 to 180 days later. For chronic conditions, such as diabetes, often a standard one-year period is considered. Before implementation, many Prometheus pilot sites estimate the amount of spending that occurs during the time period so as to define the typical costs for the bundle. However, the lag time between claim submission and payment often makes it difficult for providers to make timely changes in their clinical practice. Sometimes the results of clinical process changes aren’t seen until data is received 9 or more months later. The trigger is often set at the first diagnosis of a claim or set for the time period of someone with an existing diagnosis.

Not all patients with a given condition or procedure are included in the episode-based bundle. Those patients with comorbid medical conditions who require significant health care beyond the bundle are sometimes excluded from the bundle. This might include diabetics with end-stage renal disease; global payment systems that include payment allowances (or reinsurance pools) for high-cost patients may be a more appropriate model in these situations. Also, some bundles are limited to include only patients in certain age ranges or exclude patients with gaps in their health insurance coverage.

The process of defining episode-based bundles can take a considerable period of time. In order to improve provider and payment comfort, data modeling and scenario testing is done. Often an external consultant is used to help reach an agreement. Consistent with discussions in Chapter 4, rate setting often takes into account historical spending. However, Prometheus also incorporates an analysis of the costs of “potentially avoidable” complications into its rate setting calculations by using a multivariate regression model that is based on claims data and takes into account patient age, clinical severity, and comorbid conditions. The analysis also factors in regional differences in the use of health care when judging the circumstances of each patient.

Prometheus Implementation: Methodologic Challenges Slowed Initial Progress

In the beginning, Prometheus site selection would often be followed by a year of pre-implementation planning. Some of the more complicated bundles would include an observation period of an additional 6-12 months. As methodologies improved and key processes were automated, Prometheus sites have reduced implementation time to 6 months. For example, a manual reconciliation process, which employed complex rules for deciding whether FFS claims should be included in the bundle, has been automated.

Also, given that providers need to understand how spending is taking place in their panel during the episode of care, one implementation site has developed a secure website to display how providers are faring against their budget. Perhaps the most important determinant of improved implementation time has been strong involvement of senior leaders in payer and provider organizations. K. Michl (Appendix F)

Vendors are currently developing claims payment software modules that have the ability to administer bundled payments to multiple facilities, physicians, and non-physician practitioners. Moreover, the technological capability to pay Prometheus episodes prospectively is currently being developed and should be available in the latter part of 2012.
Results of Prometheus payment initiatives are still somewhat preliminary but modest savings are currently being reported under the shared savings models used by most implementation sites—one plan reported a 40 percent decrease in readmission and a 50 percent decrease in complications. However, as Prometheus sites transition from partial risk under shared savings models to full risk under prospective payment models, cost savings should increase. This likely will increase the use of outlier patient exclusion and stop loss mechanisms by providers as a means to limit their risk exposure. That said, whether or not Prometheus-style bundled payments become widespread over the next several years depends a great deal on whether CMMI successfully tests and implements this payment methodology under Medicare. Moving beyond the testing phase will require convergence of CMS and commercial insurers to allow more patients to be included in common episodes of care.

A Global Payment System Hybrid

As previously noted, physicians tend to think of global payment bundles as being synonymous with capitated payments. While this may be true, within a global payment construct, any number of differing payment models may exist. A global bundled payment system may actually use partial of full capitation or, for that matter, episode-based bundles for high-cost procedures, PMPM payments to foster enhanced care management for patients with chronic diseases, or even FFS payments to cover consultative services.

The previously mentioned AQC is a case in point. Though the AQC originated as a full-risk model, there are now some non-full-risk (non-global capitation) versions. Accountable Care Associates experience, which is described in the example below, proves that AQC’s infrastructure and quality support services makes success possible for groups with no managed care background. The quality and satisfaction improvements that have resulted from participation in managed care programs, such as AQC and Medicare Advantage, have led ACA to consider the possibility of using infrastructure support services for its non-managed populations. As an example, the ACA is now using its experience to refine and develop bundled payment systems that can either stand-alone or work within (or alongside) global payment models. ACA’s preexisting data and care coordination services are proving very effective for these novel arrangements.

Accountable Care Associates Experience under the AQC

ACA was the first independent physician group to sign-up to participate in the AQC in 2009. Up to this point, ACA had 10 years of experience with managed Medicare (Medicare Advantage). ACA’s Medicare efficiency put it among the top performing groups, not only in Massachusetts but also in the United States. However, ACA’s commercial insurance cost inflation trend was 8 percent per year, slightly worse than the state average. This discrepancy led to questions about whether ACA’s infrastructure was adaptable to globally capitated commercial populations.

ACA found, however, that its managed care infrastructure worked quite well for all of its managed care populations. After the first two years of AQC participation, ACA’s commercial care cost inflation trend was halved to an average of 4 percent then to –0.8 percent in 2011. This downward trend continued into 2012, with –4 percent in cost inflation through April. Most surprising is that ACA’s newest groups, which had had no experience with full risk contracts, became it’s best performing groups after only 3 months. Lastly, the quality of care and satisfaction of patients and physicians improved even as costs declined. P. Gaziano (Appendix C)

Moreover, ACA also has developed specific service lines to assist hospitals and nursing homes in reducing readmission rates and track post-discharge care activities. Non-payment events for avoidable readmissions and health care-associated infections are likely to become increasingly widespread, so post discharge tracking and prevention will be critical to success. In summary, ACA has been successful in applying low-cost infrastructure support services across models and systems as a means to substantially reduce costs while improving quality and satisfaction.
Epilogue: The State of Health Care in the United States Before PPACA

The Patient Protection and Affordable Care Act (PPACA) was a reaction to, rather than the cause of, a health care system that costs too much, covers too few and too often rewards the wrong mix of services. This is a point that is worth repeating—the problems with our current health care system are not new.

In fact, the managed care movement of the 1980s and 1990s, which preceded PPACA by at least 20 years, tried unsuccessfully to address many of the same cost and quality-of-care problems. This was primarily due to the fact that systems were not in place (and probably did not even exist at the time) to ensure that quality care was maintained even as costs were reduced. This led to a patient backlash as fears spread that costs were being cut at the expense of needed treatments. In essence, patients came to view less expensive care as bad care, a perception that the new payment models still must contend with today.

This challenge has been underscored by recent initiatives, such as High Value Care15 and Choosing Wisely16, designed to curb inappropriate care. In launching High Value Care in partnership with the American College of Physicians, Dr. John Santa of Consumer Reports said “we feel very strongly that in many cases, patients are asking for tests or treatment that they see on an advertisement or a promotion. We know from our surveys that consumers are fixed in their belief that more health care is better.”17

While comparisons are often made between the HMOs of the managed care era and the ACOs of today, these comparisons are overly simplistic. They fail to account for the foundational role that health informatics and analytics will play in ensuring that the new models maintain high-quality care even while curbing cost growth—see Chart A for a diagram that compares contrasts HMOs to ACOs. This is achieved through adherence to quality metrics that essentially serve as a backstop to ensure that patient care is not compromised. Thus, participating providers who are able to cut costs must simultaneously achieve certain metrics demonstrating that quality is, at a minimum, maintained and preferably improved.

To be most effective, two additional issues must be resolved: the role of the patient and the cost of defensive medicine. With respect to the first issue, new payment models should introduce some degree of patient-level accountability so that patients become active partners in the medical decision making process. Thus, just as providers share in the cost savings that result from quality and efficiency gains so should patients benefit from becoming healthy and cost conscious consumers. This could take the form of noticeable shared savings, such as lower co-pays and/or deductibles, or less noticeable cost savings from avoided tests or procedures.

Secondly, payment reform cannot occur in the absence of tort reform. The cost of providing care is related to medical legal liability expense both directly, through the costs of acquiring medical liability insurance, and indirectly through a litigious health care environment that undermines a physician’s judgment.18 This leads to the perceived need for additional tests to conclusively document why a physician has chosen a certain course of treatment as the best quality of care for that individual patient (defensive medicine). In the absence of tort reform, even high-value procedures or services are vulnerable to lawsuits if patients or family members perceive that a physician did not do “everything possible” to make them well.

Glossary of Terms

**Attribution of Care:** the process of determining which providers are involved in a patient’s or population’s care and defining their level of involvement.

a. *For payment*—attributing care as a means to distribute payments. This can be accomplished through tiering attribution, contract negotiations, etc.

b. *For performance*—attributing care as a means to measure cost and quality.

**Community/experience rating:** actuarial approaches to determine insurance premiums.

a. *Community rating*—establishes the same premium for all individuals with the same demographic characteristics, such as age, sex and geography.

b. *Experience rating*—considers the individuals’ (or more often, an employer group’s) prior claims histories such that “healthier” groups are charged a lower premium and “sicker” groups are charged a higher premium.

**Current Procedural Terminology® (CPT):** the coding convention established and licensed by the AMA that is used to report specific clinical services.

**Fee-for-Service:** the most common payment model used by most public and private payers that assigns a discrete fee (usually based on the relative value units, see RBRVS) for a specified service defined by each CPT or HCPCS code.

**Healthcare Integration:** combining or merging service lines, practices and settings in order to improve operational and clinical efficiency.

*Clinical Integration*—clinically integrated physician networks create a degree of interaction and interdependence among physician participants in their provision of medical services, in order to achieve cost efficiencies and quality improvements in providing those services, both individually and as a group. No financial risk is involved.

a. *Vertical Integration*—model of integration in which physicians, hospitals or other providers are united together into a single legal entity, such as a corporation. Such entities are positioned to accept responsibility for all or most of the care for a defined population.

b. *Virtual Integration*—merging of entities through technological infrastructure. Entities need not be located on the same campus.

c. *Horizontal Integration*—model of integration that enables two or more independent entities (i.e. physician groups & hospitals) to pool resources and expertise. Such entities typically deliver some broad component of care—primary care or single specialty care—to a defined population, but are not able to deliver the full spectrum of health services.

**Healthcare Infrastructure:** buildings, supplies and technology (hardware and software) necessary to provide clinical services.

a. *Cloud-based technology*—technological infrastructure that exists virtually and which can be accessed securely online.

b. *Data sharing*—the process of sharing patient-specific healthcare data either through an EHR, an HIE or the cloud.

c. *Health Information Exchange (Verb)*—the electronic movement of health-related information between two or more organizations or stakeholders.

d. *Health Information Exchange (Noun)*—the entity that provides seamless exchange of health-related information electronically among participating organizations.

e. *Electronic Health Record*—practice tool that organizes patient health information and medical history in an electronic format.

**International Classification of Diseases (ICD):** diagnosis-based coding system maintained by the World Health Organization (WHO) to classify morbidity and mortality data.

**Performance Measures—Efficiency:** assess providers based on their use of resources, often in terms of costs, in delivering or organizing care.

a. *Episode-based cost measures*—assess providers based on the specific costs associated with the diagnosis, management and treatment of conditions that involve a given episode of care.

b. *Per capita cost measures*—assess providers based on their average total cost per patient with specified conditions over a given time period.
Performance Measures—Quality: assess providers based on their quality of care
  a. Outcome measures—assesses the quality of care for a given condition by benchmarking it against a desired health outcome.
  b. Patient Reported Outcome (PRO) measures—designed to allow patients to self-assess their physical, mental and social health status.
  c. Patient experience—surveys and tools designed to record a patient’s perspective on their care.
  d. Process measures—used to assess the extent to which providers follow defined processes that, based on best available evidence, are generally considered to lead to a desired health outcome.

Performance Measures—Other:
  a. Composites—a combined metric that incorporates multiple individual measures to provide a single score. For example, several process measures may be aggregated into a single composite.
  b. Quality and resource utilization reports (QRURs)—designed to provide confidential information to physicians about their cost and quality of care for Medicare FFS patients in comparison to peer groups of medical professionals in similar specialty areas of practice.

Resource-Based Relative Value Scale: used to determine the cost of individual physicians services using three components: work, practice expense and professional liability insurance.

Risk-Adjustment/Stratification: the process of adjusting payments to providers based on differences in certain variables (e.g., pre-existing conditions, socio-economic factors, age, gender, diet, race, smoking status, etc.) of individual patients or populations.
  a. Actuarial risk (or “insurance risk”)—is what payers assume (and price for) when offering a defined benefits package to individuals or groups.
  b. Cherry picking—intentionally selecting healthier and excluding sicker patients as a means to limit risk.
  c. Performance risk (or “clinical risk”)—is the variability providers assume (and attempt to control for through effective medical management) when accepting financial responsibility for the care of a particular patient or population.

Risk Sharing: the process of sharing responsibility for (or taking accountability for) the value of patient care by agreeing to tie a portion of payment to achievement of quality and cost targets.

Secondary Insurance: supplemental insurance that offers benefits beyond what is covered by patients’ primary insurance. This may reduce or eliminate out-of-pocket costs, thereby reducing a financial disincentive to seek health care services.

Stakeholders: individuals and organizations that have a stake-in healthcare delivery and payment reform efforts.
  a. Beneficiaries/enrollees/patients—individuals seeking care.
  b. Facilities—systems-level providers, such as acute care hospitals, critical access hospitals, community health centers, skilled-nursing facilities and long-term care facilities.
  c. Non-physician practitioners—includes physician assistants, nurses, nurse practitioners, nurse mid-wives
  d. Payers—entities that process and effect payment of claims for health care services and/or enter into contractual agreements with providers to establish fees or other payment arrangements.
  e. Physicians—Doctors of Medicine or Doctors of Osteopathy
  f. Providers—an all encompassing term that includes physicians, non-physician practitioner and facilities
  g. Purchasers—employers, unions, governmental entities, and other organizations that either directly or through payers bear the ultimate cost of health care services for a defined population.

Tort Reform: reforms that stabilize the medical liability insurance market (and repair our court system) by curbing unnecessary litigation and placing limits on non-economic damage awards.

Underwriting: the process of determining whether an individual or group is eligible for insurance coverage and the setting of a specific premium based on the specific factors present in the individual or group.

Value: quality per unit of cost, for a desired outcome, in the context of appropriate use.
**Value-Based Delivery:** providing care in a manner that optimizes value
a. *Team-based care*—the process of a group of physician-led providers working together, as measured by the level of coordination, to provide high-quality and cost-effective care.
b. *Coordination of care*—the process of providing team-based and patient-centered care that avoids unnecessary tests, procedures and complications.
c. *Care transitions*—the act of coordinating the care required by patients as they move from one setting to another.
d. *Episode of care*—refers to all resources used and costs related to managing a specific medical condition of a patient during a specified time window.
e. *Episode grouper*—software applications used to define and measure episodes of care.

**Value-Based Payments:** new and transitional payment models that are designed to encourage the delivery of high-quality and cost-effective health care that can be demonstrated by objective measures.
a. *Care management fee*—typically a Per Member Per Month (PMPM), often associated with the Patient-Centered Medical Home (PCMH), which is designed to recognize specific care processes for patients with chronic diseases.
b. *Case rates*—same as episode-based bundling; establishes a fixed payment for a defined period of care, typically related to a specific procedure.
c. *Episode-based bundling*—a group of services that is aggregated together as a means to determine payment (typically prospective) for a finite episode of care, which usually is often focused around a procedure.
d. *Global payment system*—a group of services that is aggregated or bundled together as a means to determine payments (typically prospective) for all of the care rendered to a particular patient or population over a given time period.
e. *Pay-for-performance (P4P)*—a health insurer or other payer compensates physicians according to an evaluation of physician performance, typically as a potential bonus on top of the physician's fee-for-service compensation.
f. *Quality contract*—a modified global payment (fixed budget for the care of a patient during a specified time period) that explicitly connects payments to achieving quality goals and establishes an annual rate of increase for each contract group's budget.
g. *Shared savings or gainsharing*—the difference between the actual costs incurred and the established budget for a population attributed to a risk-bearing entity. Typically, if the actual costs are less than the established budget, some portion of the difference (or “savings”) is distributed among the physicians and other providers and the remainder is retained by the payer. In the event actual costs exceed the budget, there is no distribution.
Chart A: A Critical Look at PHOs Compared to Current Efforts to Establish ACOs

**PHO/ACO Comparison**

<table>
<thead>
<tr>
<th>PHO</th>
<th>ACO</th>
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<tbody>
<tr>
<td>Insurance risk</td>
<td>Performance risk</td>
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<tr>
<td>Panel of patients</td>
<td>Population of patients</td>
</tr>
<tr>
<td>Scrum for share of revenue</td>
<td>Rational allocation of revenue</td>
</tr>
<tr>
<td>Charge based</td>
<td>Value based</td>
</tr>
<tr>
<td>Managed care leverage</td>
<td>Care coordination</td>
</tr>
<tr>
<td>Pay for quantity (covered lives)</td>
<td>Pay for quality</td>
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<tr>
<td>Episode of care focused</td>
<td>Patient-centric focused</td>
</tr>
<tr>
<td>Split control and governance</td>
<td>Physician leadership</td>
</tr>
<tr>
<td>Do more</td>
<td>Do less</td>
</tr>
<tr>
<td>Intervention</td>
<td>Prevention</td>
</tr>
<tr>
<td>Clinical integration to achieve antitrust compliance</td>
<td>Clinical integration to achieve efficiencies and quality improvement</td>
</tr>
</tbody>
</table>

*Source: Gary Davis and J. Peter Rich, McDermott Will & Emery LLP*
Chart B: Comprehensive Care Payments under the Vermont Blue Print for Health

The Vermont Blue Print for Health payment reform attributes higher payments based on participating medical home practices’ NCQA score. Enhanced payments, which range from $1.20 PMPM to $2.39 PMPM, begin when a score of 25 points is attained and increase or decrease in 5-point increment. The following scoring scale provides more information:

<table>
<thead>
<tr>
<th>Provider Payment Table (SPPPM for each provider)</th>
<th>NCQA PCMH Points</th>
<th>Average PPPM Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requires 5 of 10 must pass elements</td>
<td></td>
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<tr>
<td>25</td>
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<td>Requires 10 of 10 must pass elements</td>
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</tr>
<tr>
<td>100</td>
<td>$2.39</td>
<td></td>
</tr>
</tbody>
</table>

* Vermont Blueprint for Health implementation manual (http://hcr.vermont.gov/sites/hcr/files/printforhealthimplementationmanual2010-11-17.pdf)
Chart C: Organization of Payment Methods

Source: The Commonwealth Fund, 2008
Chart D: How to Build Bundled Payments

I want to build a bundle

Pick the condition or procedure to bundle

Define episode & length

Identify services & providers

Establish payment amount & attribution

Periodically reassess assumptions

Identify Payer Partners

ANALYZE DATA

JOINT GOVERNANCE

CONTROL $$$
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Appendix A: Michael Abecassis, MD, MBA

Transplant Surgery—Episodes-Based Bundles

Transplant bundles were traditionally priced according to 5 phases of care: 1) evaluation phase (first visit to transplant center → placement of patient on the waiting list); 2) placement on the waiting list → admission to hospital for transplantation; 3) admission to hospital for transplantation → discharge from hospital; 4) discharge from hospital → specified period post-transplantation (typically 30-90 days); 5) end of phase 4 (30-90 days post discharge) → 1 year post transplantation. In the beginning, these bundles included all 5 phases of care, but for phases 3-5, only “transplant-related” care was included in the case rate (i.e. admission for rejection episode, or for transplant-related complication, etc.), and attribution to “transplant-related” versus “non-transplant-related” often required a dialogue between the providers and the medical director/administrator acting on behalf of the payer. In addition, Phase 1 included only “transplant-related” work-up (diagnostics) and whether particular tests/procedures were “work-up-related” or not also required frequent discussions between the provider and the payer. Nonetheless, the “episodes of care” were well defined, and payments for these episodes were bundled. However, as waiting times have gotten longer (more risk for disease management in Phase 1), and cases have gotten more complex (organ shortage), there has been a shift, not necessarily in the definition of the various phases, but rather in the contractual agreements between providers and payers. For instance, as the “risk” for Phases 1 and 3-5 has increased, and therefore the cost has become increasingly difficult to predict with some level of certainty, the payment model for these phases has changed from the case rate model, to a discount, or a per diem model. In addition, stop loss language for the phases covered by the bundles have evolved in order to better manage risk. Finally, there has been a more clear definition of risk related to the procedure, versus actuarial risk, with the provider more likely to manage and take procedural risk, and the payer actuarial risk. I believe that a clear definition of the various phases of “bundles” will be essential in any payment model moving forward and, moreover, payment models will need to be developed for each phase that fit the risk.

The first phase of care might be defined anywhere from the time of initial presentation with condition-related symptoms to the primary care physician, to the point of referral to the specialist. The specialist could be an internist who in turn, manages the condition for a while before referring the patient to another specialist for a procedure. Alternatively, the episode might start with the first visit to the internist, or to the surgeon, or when the decision to proceed with a procedure is made. Regardless or the point of reference with regards to setting the triggers for the various phases, such a model will engender team-based care, and potentially reduce unnecessary and redundant diagnostics. In addition, depending on the structure of the contractual agreement, especially the related to the various phases of care, one can envision additional potential savings as performance risk is assumed by the provider most responsible for inefficiencies of care, condition- or procedure-related complications, etc. such that attribution and accountability are assigned to those most responsible for the specific phase of care. At an absolute minimum, the bracket might be centered on a procedure, and the episode of care would begin 24 hours prior to the procedure, or preferably 24 hours prior to the hospital admission that triggers the procedure, and end at discharge, or 30-90 days after discharge from the hospital. Similarly, the post-acute care period might begin either at discharge and extend for a finite period of time, or begin after the bracketed post-procedure episode and extend for a longer period of time, as long as a year or longer, shifting risk related to the procedure to the provider. Inherent to these types of contractual agreements are stop-loss measures, consisting of ‘first and second dollar’ outlier clauses, and potentially, ‘inlier’ clauses that might be reminiscent of shared savings models.

Distribution of Payment Amongst Providers

Transplant bundles were traditionally “global”, meaning that they included all doctors, and doctors and hospitals, on a phase by phase basis (see 1. above). There were “triggers” that resulted in a payment and once the institution received payment, decisions had to be made regarding distribution. The first decision consists of doctors versus hospital. Needless to say that this distribution decision required significant discussion, and the percent distributed to each is often based on actual (historical) cost data. Herein lies the first problem—whereas hospitals can define their “full costs” quite nicely, physicians cannot typically calculate their “costs”. In addition, hospital charges can represent any multiple of
full costs and are often significantly inflated. In contrast, physician charges are typically tied to a benchmark. Therefore, in analyzing “cost data”, the “cost” used to estimate “true cost” often requires a set of assumptions, agreements, etc. I should mention that this first decision is much easier when the doctors are employed by the hospital although even in these situations, issues around “credit” and “attribution of effort, resources, etc.” often come up. The second decision consists of doctors versus doctors. These decisions tend to be much easier to deal with, given that the “currency”, or cost basis can be standardized much more easily. For instance RVUs can be used, although a lot of the work performed by transplant physicians and surgeons, especially in Phase 1 cannot be valued (this is a very unique feature of transplantation and should not affect other disciplines). However, there needs to be a “management fee” that gets distributed to the doctors more likely to coordinate the care of the patient through each phase of care. In addition, as practice changes, distributions may also need to change. For example, when liver transplant recipients all had T-tubes, follow up of the biliary tree was primarily the responsibility of radiology (T-tube cholangiograms, bile leaks, etc.). Once, T-tubes became obsolete, a lot of the care related to biliary problems post transplantation fell on the interventional GI endoscopist. Therefore, distribution schemes had to be restructured based on a change in practice. I believe that these distribution issues are all easily resolvable as long as there is clear transparency, rational decisions based on data and consensus on practice. Moreover, the type of analysis necessary to ensure fair distribution of compensation also allows for analyses necessary to price services based on average resource utilization and allows for recovery of costs incurred by providers.

Transplantation has used team-based attribution for both payment and performance (or outcomes) for at least two decades. For payment attribution, providers’ involved in the transplant case are divided into the following “tiers”—payment distribution varies by tier:

a. **First Tier Providers**: Applies to providers who are involved in every single case. These providers would receive some percentage of total reimbursement based on historical data that may include RVUs, as well as costs of coordinating care, etc.

b. **Second Tier Providers**: Applies to providers who may be involved in some cases, but not in all. In general, this tier would apply to providers who are involved in 5-95 percent of cases. Payments are based on a similar attribution methodology to that of the first tier—the key difference being that second tier payments are pro-rated to reflect the historical percent of involvement for each provider or provider group.

c. **Third Tier Providers**: Applies to providers who are hopefully NEVER involved with a particular episode of care, with an understanding that this may happen on rare occasions, hopefully in <5 percent. A “kitty” is typically set aside for third tier providers such that in the rare case that these providers are involved, they would be paid, based on some pre-negotiated rate. In the case that the rare complications requiring third tier providers does not occur, the funds set aside for the kitty would be redistributed according to first and second tier methodologies.

With respect to performance attribution, the National Transplant Registry, and program specific outcomes reports, have become the bright line test for transplant programs condition of participation in the Medicare program, as well as in centers of excellence for third party private payers. Because of an unfunded mandate that dates back to 1984, transplant centers are obligated to report outcomes on all patients they encounter in the process of evaluation for transplantation, regardless of the payer, and regardless of whether the patient in fact undergoes transplantation. The outcomes are updated every 6 months ([www.transplant.org](http://www.transplant.org)) for every transplant program and center (organ specific reports for each transplant center—program specific reports—PSR). Outcomes are risk-adjusted, although it is generally accepted that the risk adjustment methodologies are grossly imperfect, and if a transplant program falls significantly short of expected outcomes, in terms of patient and graft survival, the program is disqualified as a provider for both CMS beneficiaries and for patients with third party private insurance coverage. This highly regulated system has been in place for several years and outcomes are related back to programs, not individuals. Through internal review (sometimes external review by either UNOS—United Network for Organ Sharing—or CMS), individuals may be identified as being the root-cause of unfavorable outcomes, but this is rare, and program directors need to make decisions about individual providers based on internal data analyses. Nonetheless, when a program is flagged, or disqualified, the entire program (and their patients), and the institution take the hit. This has resulted in pre-emptive analyses of outcomes, and
other measures by programs in an attempt to react to trends towards bad outcomes. These types of efforts bring the team of providers together, including surgery, various internists, anesthesiologists, etc. in an effort to identify root-causes as part of a quality assurance and performance improvement (QAPI) process. In fact, CMS has mandated that transplant programs need to have ongoing QAPI programs that include both inpatient and outpatient processes and these are highly scrutinized during regular CMS audits of transplant programs, even in programs with PSR well within acceptable limits. Thus, in transplantation at least, team-based attribution in the context of a robust institutional QAPI specific to the transplant program, and transparent outcomes reported publically through PSR, taken together, seem to be far more effective (and logical) than any single-source attribution system.

**Defining Value**

There has been a lot of recent emphasis on “value”. A basic definition of value is quality per unit cost, implying that value can be optimized by either increasing quality (outcomes, customer satisfaction, etc.), or decreasing cost for a given level of quality, or both improving quality and decreasing unit cost. However, a third and important element is either left out of the equation altogether, or is implied in both the numerator and denominator - appropriateness. Appropriateness is a quintessential component of the healthcare value proposition. For instance, delivering high quality, low cost care when not indicated cannot possibly be equated with high value, even though it would strictly meet the definition. Overuse, underuse, and inappropriate use of diagnostic and therapeutic interventions not only results in wasteful deployment of resources, but hurts patients. Although one can argue that appropriateness is linked to quality, the majority of quality measures do not incorporate measures of appropriateness. Patient-centered joint decision-making, a principle highly espoused by current thought leaders may in fact lead to inappropriate use of both diagnostics and therapeutics, further aggravating the issue. For instance, a patient and/or their family may wish to pursue unproven or futile (and expensive) oncologic treatments as a “hail Mary” in the case of advanced malignancy. Or, a patient and/or their family may insist on expensive imaging studies and/or orthopedic procedures what might otherwise benefit from exercise and physical therapy. And although conventional wisdom would dictate otherwise, the providers may not have enough evidence or authority to restrict the provision of this specific care plan. Transplantation has resolved this issue mainly as a result of the fact that the organ shortage mandates regulation and policies directed at organ allocation based on justice, equity and utility. Allocation policy is formulated by practicing physicians deeply involved in the delivery of transplant services, taking into account geographic (local, regional and national) considerations coupled with a desire to achieve a defined outcome based on an equipoise between justice, equity and utility. Although one could argue that the organ shortage could be compared to a shortage of resources, a need to bend the cost curve, etc. it would seem almost impossible to convince the U.S. public that the two are identical. However, the concept could easily be extended to expanding the definition of value to: quality per unit cost, for a desired outcome. This second part of the definition would then need to be defined for each condition and would need to have built into it well articulated boundaries for appropriateness. Alternative treatments would also need to be included in care plan algorithms. National guidelines would be needed to ensure adherence to treatment algorithms and protocols. The end result would be to mitigate variation in care provision and costs for defined conditions.

**Risk Adjustment in the Transplant Community**

The transplant community has had risk-adjusted outcomes since 1987, that are reported publically, and that are currently used to qualify or disqualify transplant programs. First, the National Organ Transplant Act (NOTA) of 1984 made it a federal mandate for transplant centers to report, on an ongoing basis, data from every potential transplant candidate (and live donor) they encounter, essentially for the life of the candidate (unless the candidate is ruled out). This includes reporting on these patients long after their transplants. There are literally thousands of data fields that the transplant centers are required to report. But this has been an unfunded mandate from the very beginning, and as the data burden has increased over the past 25 years, so have the costs. Yet, no funds have been allocated for the purpose of data collection, and submission. There are funds allocated by Congress for the purpose of data analyses, but these funds are not allocated to the transplant programs. Thus, please heed the following words of caution as you pursue risk adjustment methodologies:

a. **Identify Funds to Collect the Data in Advance:** The first word of caution is that if we, the medical community, with all the best intentions advocate for data collection in
order to improve risk-adjustment, we should immediately identify sources of funding to support the significant burden of such a mandate.

b. **Data Collection Methodologies Must Match Program Goals:** In the beginning, transplant data these data were meant to help transplant centers monitor their results, and there was (and is) a process whereby a review by colleagues and peers would be triggered when trends indicated that a particular program was not achieving expected outcomes. This was meant to be an exercise in peer review, and remediation. In 2007, CMS transformed the purpose of the data collection and analyses into a punitive measure, whereby programs are now being disqualified based on the PSR. Unfortunately, the statistical methodologies employed have not changed, and therefore systems designed with the intent of friendly remediation are now being used for punitive purposes. This has been raised numerous times to CMS, and the Agency now recognizes that there needs to be a change in methodology, but this calls for more data collection, which brings us back to the first point. Therefore, it is important that strategies regarding risk adjustment designed for performance improvement not be hijacked to become ‘bright-line tests’ for performance.
Appendix B: Peter Amadio, MD

One of the key questions in payment reform is how to transition from FFS, a pay for volume mechanism, to pay for value. Most proposals have included the ‘stick’ of reduced fees, often across the board, or with carve outs for primary care and other ‘more desirable’ services. The SGR is an example of such a mechanism, and a clear example of how such mechanisms fail. Even worse, such mechanisms essentially punish providers and systems which get better outcomes with fewer services, because they suffer the same percentage cut as higher volume providers, even when the higher volume is associated with no better outcomes.

One simple payment reform mechanism to address this issue, and to encourage high value systems while incenting lower value systems to change, would be the use of a regional value modifier to adjust reimbursement in the FFS environment. The modifier would adjust fees based on the value created in the local area; higher value would result in higher individual fees, and vice versa. Considering the elements of the value equation, (quality + outcomes + satisfaction) / total costs over time; anything that improved results would tend to increase the modifier, and thereby increase individual fees, while anything that increased costs (either high cost services or more services, or both) would tend to decrease the modifier, and therefore fees. In this way there would be an incentive for providers (including facilities as well as individuals) to carefully assess the impact of services provided on quality (safety, error prevention, process control), outcomes (health status) and satisfaction. If expensive services (such as transplantation) were provided with high quality, provided good outcomes, and improved satisfaction, then they would tend to increase value, even though the associated costs might be high. If the expensive service also reduced downstream costs, the value equation could be improved both in the numerator and denominator.

The rationale for a regional value modifier is that it would avoid penalizing regions that are already providing good value, as would be the case with other payment reforms that consider the status quo to be roughly equivalent everywhere. Another benefit is that such a system will eliminate the possibility of ‘cherry picking’. The costs and outcomes for all individuals in a region, rich or poor, insured or not, would be included. This would incent providers in the region to work together to improve value for all. In some environments, the fastest gains in value would come from reducing variability in care across the regional population, through improving access to and coordination of care for those who currently have little of either. Such a system would be ideally positioned to address disparities. The ironic adjacencies of excess and deficiency (Upper East Side/Harlem and Beverly Hills/South Central, to name some prominent examples) would be eliminated by joining these locales together within a single care region. Regions could be as large as states or the current Medicare payment regions; they should probably not be any smaller than the Dartmouth hospital referral regions, so as to ensure a sufficient size and diversity of population.

One benefit of such a system is that all the components of the value modifier already exist. Cost over time can easily be calculated for the preceding year, for example; well accepted measures such as the SF36 can be used to estimate population health; most states now collect data on patient safety and “never events”; and there are many well supported measures of patient satisfaction. Indeed, the Dartmouth Atlas, Commonwealth Fund, MedPAC and the Agency for Healthcare Research and Quality, among others, have trialed such measures, and have shown a roughly two fold variation in ‘value’ across the country, even when adjusting for population factors such as age, gender, and socioeconomic status.

A critique of the system is that it is probable that, within a region, some providers deliver high value while others do not, and that good behavior is being punished. However, this would also be a strong incentive for those providing superior value to mentor those in their community who may be struggling with delivering value, thus resulting in improvement for all.

Perhaps most limiting is that current antitrust law limits the degree of cooperation and collaboration that may be permissible within a region. Ideally, all providers and all facilities would work together to deliver high value within a care delivery region, and serve all populations. Unfortunately, current antitrust law limits such behavior, and thus has the unintended consequence of favoring ‘cherry-picking’, in which smaller provider groups compete to provide care to the wealthiest and healthiest.
We found success with healthcare payment systems that follow the newer “ACO type” global capitation payment and delivery models—which have finally fulfilled the promises of: improved quality of care delivered, improved health of the population, improved payments and support for physicians, healthcare cost savings, and improved satisfaction for all. We have found no significant barriers to rapid implementation of this new type of payment system. We have also learned a great deal from payment systems which have not delivered all that they promised. If we are to prepare our practices for the future, we must understand each payment system, and taken interest in, and help with implementation of, the preferred payment systems for our communities.

Several healthcare payment systems (including FFS) have been tried in our communities over the last 3 decades, in attempts to reduce the cost and improve quality of the care delivered. The non-FFS systems include those involving: partial capitation, bundled payments, medical home systems and pilots, “old style HMO type” global capitation (without significant provider involvement or delegation and without enough resources for quality activities and outcomes), and finally, the newer “ACO type” global capitation payment and delivery systems. These newer global capitation payment systems delegate of data and care coordination services to the physicians and other providers caring for members. They also devote increased resources to providers’ skill development and quality activities. Because of these differences, these newer systems have given our providers and members, as well as the payers, government agencies, and regulators, the healthcare improvements we wished for.

Our physicians have had experience with all payment systems, and we noticed strengths and weaknesses of each. FFS payment systems do not reward efficiency or prevention, and reinforce misaligned incentives between payers, employers, members and providers. Partial capitation payment systems were seen in Massachusetts in the 1970s and early 1980s, and have come and gone, primarily because there was strong disagreement between partial capitation provider groups (hospitals, outpatient service providers, primary care physicians, and specialists) as to funding for each partial capitation budget. There was also the ability to shift services and costs from one partial capitation budget or provider group to another. The inpatient team scheduled testing after discharge, the outpatient team returned the individual to the hospital, and the specialists and primary care physicians could not agree who was responsible for treating certain conditions. Bundled payment systems, have in the past had some of the same problems as partial capitation systems. In bundled payment systems, disagreements around budgets and cost shifting can occur, and these bundles are most useful when built around common, frequent, and episodic care. Bundled payments are less easily formed around chronic conditions, end-of-life care, and care provided in lower socio-economic settings. Medical home payment systems (pilots or not) also have problems related to differing opinions about funding, whether or not to include specialists or be primary care-centered, and can still produce cost shifting.

These first 3 non-FFS payment systems mentioned have the added problem of not enough funding for needed infrastructure. The partial capitation and bundled payment systems (at least in the past) did not have enough resources devoted to quality measurements or outcomes. While medical home systems appear to support quality initiatives, none of these 3 payment systems are well-suited for population management, and none have consistently reduced wasted expenditures. Some older HMO style global capitation payment systems saved money at times, but had other undesirable outcomes. These systems had in our opinion, 3 flaws including: inadequate resources for quality activities, inadequate data (compounded by the fact that real-time data was not given to the providers directly), and inadequate delegation of care coordination to providers. Also, while these systems included resources for care coordination and data management, central control of resource allocation meant that they did become part of the provider practices. Some HMOs saved money, but at the expense of public perception, and in some cases, individual safety. Others did not save as much money as expected, due to work-around activities by providers who were not part of the health care planning or decision-making.

In contrast, we found that the new ACO type of global capitation systems give the needed resources to fund our provider based infrastructure and tools, and delegate to the providers the ability to use them. Our infrastructure includes: claims and clinical data management, case management, complex disease management, contracting support, network devel-
opment, risk assessment, reinsurance recoveries, dedicated hospital rounding, dedicated rehabilitation and nursing home rounding, quality oversight, physician leadership, web-based clinical information sharing, member satisfaction reporting, provider trending and education, utilization monitoring, financial monitoring, and regulatory compliance oversight components. Key features include the integration of patient care rounding services and care coordination services, and the further integration of these with the primary care practices using web based tools and physician consultations. Physician co-management and consultative services were developed for hospital, outpatient, and home environments. Our case coordination programs are proactive, use validated clinical protocols, utilize specially trained in-home providers in combination with specially trained physicians, and follow NCQA guidelines.

The 2 most common examples in Massachusetts of the newer type of global capitation are current Medicare Advantage plans and the BCBS of Massachusetts AQC. It is worth noting that Medicare advantage plans, which started in the early 1980s, did not initially have all the features we view as essential for success, and that some were and still are patterned after old-style HMO plans. Thankfully, many Medicare Advantage plans changed over the last 3 decades, and in Massachusetts, movement from centralized health plan data management and care coordination to provider based options has led to the development of provider support organizations like ours. Our infrastructure and tools were then adapted for use with the AQC, and our infrastructure is now helping solve the problem of medical cost inflation in our state. The commercial insurance medical cost inflation in Massachusetts before 2009 was 7.5 percent. In our county it was 7.9 percent, and in the practices of our physicians it was 8.2 percent. In the 3 years since starting the AQC, the medical expense cost inflation for our AQC enrolled members has averaged about 2 percent, and for last year is at 0 percent. This came with improvements in all quality and all satisfaction measurements. In our Medicare Advantage plans we consistently save about 20 percent of the healthcare expenditure, compared with that in unmanaged and severity adjusted Medicare members in our counties, and again we see improved quality and satisfaction measures (including 30 day hospital readmission rates of 10 percent, improved severity adjusted mortality rates, and improved disease prevention).

Several perceived barriers to global capitation system implementation, have not, in our opinion, been true barriers. The first of these is the impression that an integrated or contiguous network is necessary or preferred. Our networks now include 250 primary care physicians in 6 counties in 2 states with 500,000 members in their panels, including 35,000 members in our global capitation networks—a number expected to double in July when our Medicare ACO is expected to begin. Our primary care physicians and members, in both rural and inner-city settings, are connected to over 5000 specialists and 9 hospitals ranging in size from 40 beds to an 800 bed teaching hospital, and they are in practices ranging in size from solo practices to hospital employed practices of several hundred.

Another perceived barrier is that an integrated electronic health record is required. One fourth of the primary care physicians are still on paper charts, with the remainder using one of 11 different EHRs that do not exchange information with each other or with hospital EHRs, and over 30 percent of the primary care physicians are in small practices of 3 physicians are less. We have been able to achieve consistently high outcomes by all providers. We have been able to manage diverse populations including, those in affluent and impoverished neighborhoods, and those with both few and many chronic health conditions—all with similar positive outcomes.

We found that highly integrated practices with shared health records are not necessary. We also found that the presence of—or lack of—managed care experience made little difference in either the speed of or ease of integrating new practices or new practitioners. It typically takes only 3 months for new practitioners to learn our systems, and no additional equipment or financial investment is required of their practice. By 6 months all practitioners are able to perform well, and with less variation than before joining. These observations have been particularly pleasing to practitioners in small practices wishing to stay independent, but wanting to participate in—and perform well in—these newer global capitation contracts. Our web-based information sharing tools allow practitioners on different systems to communicate with each other, and improve care coordination. All barriers to starting these delivery systems are reduced or eliminated.
We have found no barriers to rapid conversion from FFS and other non-global capitation payment systems to the newer ACO-type global capitation systems, and we have seen steady growth of enrolled members and providers in both Massachusetts and in other states. Our providers enjoy the added infrastructure and support, and the ability to have more in-depth visits with more attention to preventative care that these programs allow. We have even been able to recruit new physicians to our practices. Enrolled members appreciate: the added phone calls, extra home nurse visits, transportation to appointments, extra physician care, and the enhanced benefits and coverage, that these programs give them. Healthcare must change from episodic and fragmented to integrated and longitudinal. Global capitation with delegation of data and services to providers will produce the best results. Our successful experience at ACA and Quality Health Ideas (QHI) helping providers and members gives us optimism about further success with global capitation healthcare delivery and payment systems.
Appendix D: Donald Klitgaard, MD

To date, our rural primary care-based practice in Western Iowa has been able to achieve much more substantial transformation in how we deliver care than in how we are paid for that care. We have made some significant advances in providing higher value care, as described in the Delivery System Reform Whitepaper, but have done so mostly within the current payment system, and in the process have reached financial impediments to our continued evolution. We have leveraged the available payment changes to further our PCMH transformation, and hope that new opportunities continue to arise to support our ongoing transition to higher value care.

In our market, the initial opportunity for additional payment that we could leverage was the Wellmark BCBS Collaboration on Quality (COQ), a pay-for-performance program in which we have participated for the past five years. The program has focused on a mixture of chronic disease management, prevention/wellness, and cost measures. The initial emphasis was on process measures such as documenting completion of microalbumin testing and dilated eye exams in diabetic patients, as well as documenting BMI and immunization completion. Over the years of the program, these measures have been continued, with the addition of outcome measures such as percentage of diabetic patients with a Hba1c < 8 or BP < 140/80, and the cost measure of percentage of generic medications prescribed. A 3-tiered payment system rewards practices for improved performance based on that year’s measure set.

While far from ideal, this program has provided an opportunity for our practice to grapple with many difficult issues such as the standardization of goals and processes for chronic care across the entire practice, the formation and use of patient registries for population management, the attribution of patients, and IT issues such as where and by whom clinical information should be documented in an EHR. We have used some of these funds from the COQ program for additional physician compensation for more time spent in providing care and documentation, and some to support needed infrastructure to better manage and coordinate care, including funding two part-time health coach positions.

This incremental payment improvement has supported a small portion of our PCMH transformation, however, we now can see the potential such improvements in care can offer our patients, and we have struggled to find ways to scale this up to the level needed practice-wide to effectively serve all the patients who would benefit. Additionally, while we can now obtain and manage our clinical data much more effectively, we have been largely unsuccessful in obtaining cost and utilization data from our main payers. This makes it difficult to assess the true benefit of our clinical process or personnel interventions so that we can better assess and further refine our efforts in creating higher value care. We are currently transitioning from the above COQ program to a new, claims-based physician payment redesign pilot and will see if this can better address the shortcomings of the current program.

The most substantial payment redesign opportunity in Iowa to date is the Iowa Medicaid Enterprise’s Health Homes program which begins in July 2012. This offers a PMPM payment fee for providing PCMH services to Medicaid members with chronic conditions. Provided services will include comprehensive care management, care coordination, health promotion, transitional care and support services. Practices must obtain PCMH certification, connect with the Iowa Health Information Network, and provide the above services. The project will operate on a four-tiered payment system, with rates of $12-$76 PMPM based on the number of chronic conditions managed by the practice. Starting in year two, a bonus payment opportunity will be added for meeting quality benchmarks. While some of the practice changes needed to meet the requirements appear daunting, a stable revenue stream from projects like this should allow us to continue to build robust, proactive, patient-centered care functionality into our outpatient practice.

As a locally integrated, rural clinic/hospital system, we are continually striving to improve the care we provide in the outpatient clinic setting, and we also see some of the downstream effects of those changes (positive or negative) as we cover the ER and see inpatients in the hospital. Within our own local system, as well as for the entire healthcare system, as we continue down the road of taking better care of our patients with chronic diseases and improving our efforts in prevention and wellness, and see the resulting decreased ER visits, duplication/overuse of services, hospitalizations, etc., we need to find innovative ways to capture and reinvest a
meaningful portion of those savings into the upstream care that can provide that high value. We are currently exploring ACO and additional payment opportunities to allow us to continue to serve our patients better and stay financially strong and viable in the process.
Appendix E: Gerald Maccioli

Richard Gilbert, MD, MBA & Gerald A. Maccioli, MD, FCCM
AMA Committee of Innovators
4 February 2012

We developed a P4P contract with a major carrier with a 2 percent upside based upon exceeding published benchmarks for a dozen indicators. In addition we used our quality measurement software to financially model cost savings to another major carrier.

**The P4P Contract**

The process is fairly straightforward as delineated:

- We selected indicators with an emphasis on cost drivers important to the carrier and for which we could attain reasonable published benchmarks (incidence) from the literature.
- Benchmarks were established.
- The indicators were bucketed into 3 main categories into a ‘balanced’ scorecard with each category worth about 1/3rd; so if there were 3 indicators in Group 1 each is worth 12.22 percent; 6 indicators in Group 2 are each worth 5.28 percent (Category Weight)
- To incent and reward continual improvement and avoid an all or none system, a range (Minimum Threshold, Target Threshold, Max Threshold) was established for each indicator.
- Therefore if we hit the minimum threshold we received 75 percent credit for an indicator (.75 category factor); if we exceeded the maximum threshold we maxed out at 125 percent (1.25 Category Factor).
- To incent high performance for each category, i.e. cannot hit it out of the park for Critical Quality indicators and ‘make up’ for poor performance with unplanned admissions, each of the 3 categories has a maximum allowable
- Our software allows us to sort by payer - 6831 carrier specific patients underwent anesthesia; of these 4348 had GA with intubation and muscle relaxant.
- Our software calculates an incident - ‘Practice Indicator per cent’
- Since we exceeded all benchmarks, we received 100 percent with a fee inflator of 2 percent increase per unit
- This was a no risk contract.

**The Cost Savings Contract**

This was not a formal P4P contract but we used clinical quality data along with financial models to demonstrate cost savings to the carrier.

Again, pretty straight forward:

- Notwithstanding the issue of risk stratification and some variability on outcome definitions, we picked metrics for which we had cost and incident data.
- As an example, for post-op MI we used a blended incidence from the literature of 0.19 percent.
- Our software allows us to sort by payer -25,420 carrier patients underwent anesthesia.
- Expected post op MI rate for this group of patients - 48.30 cases per year.
- Practices actual post op MI incident for these patients - 0.004 percent.
- Actual post-op MI cases per year - 1.02.
- Cost per post-op MI $38,501.
- Cost savings to carrier - $1,809,932 for post op MI.
- Using similar methodology for post op stroke and SSI - we calculated an $11.74/ unit cost savings to the carrier just for 3 indicators.
Appendix F: Keith Michl, MD

My internal medicine practice has been part of the Vermont Blueprint for Health program since 2006 and in 2011 became a NCQA Patient Centered Medical Home. I wanted to comment on my experience in the program to consider what needs happen to shape into true payment reform.

In the early years, I joined other physician practices to form chronic disease management programs, initially focusing on diabetes care with the use of a disease management registry to monitor performance. Payment incentives for individual practices were pay-for-performance programs funded by multiple insurance payment reform and state funding.

Eventually program incentives moved to including payment only for those practices that became NCQA-certified medical homes. Funding support continued to be based on individual insurance company capitation programs. For the last year, Medicaid has participated and in the last few months, CMS has been paying for their members enrolled in PCMH practices. Insurance payment reform has supported the NCQA medical home certification process for practices as well as the development of Community Health Teams (CHTs) that have included embedded behavioral health specialists, dieticians, and pharmacy specialists in offices.

The emphasis for the individual practice has been improving access, and developing team coordination within the practice that includes standardization of care plans and best practices in managing chronic conditions within practice panels. Most practices have reported improvement in practice workflow and operations. They’ve learned new skills in encouraging self-management by individual patients.

The majority of Blueprint practices have adopted electronic medical records that are able to coordinate disease management reporting and coordination with state registries. Practices are now reorganizing patient visits into “planned visits” that include checklists for lab/procedure ordering, documentation, and referral follow-up. The constant need for team planning and frequent “huddles” to coordinate care has been challenging in office systems that are still mired in the FFS models which is based on quantity.

Providing care management services within the medical home is perceived as improving the quality of care in chronic disease management but impedes the volume of billable charges under the FFS systems. Most physicians involved in program are still feeling that they are seeing far too many patients in order to cover overhead and wish they really had time to coordinate longitudinal care. Practices still spend an inordinate amount of time juggling individual insurance plan drug formularies and need for prior approval for tests, equipment and services.

The stated focus of the Blueprint has been to “implement a model that organizes community systems of health despite the existence of independent providers, practices, organizations, and multiple insurers”. The Blueprint has helped practices meet the NCQA PPC-PCMH standards by providing infrastructure like Community Health Teams (CHTs) and centralized registry. Although the prevailing belief is that this comprehensive approach is moving us away from paying FFS, the reality is that it is not yet engaging physicians in true value-based care that is looking at outcomes.

Payment reform includes a PMPM payment that is based upon the primary care practice's NCQA PPC-PCMH score. This PMPM payment is set rather arbitrarily. Physicians are unclear as to whether the added payment is worth the lost income in terms of added overhead expenses and reduced FFS volume which preparing and maintaining a medical home. Vermont was one of 8 states chosen to participate in CMMI's Multi-payer Advanced Primary care Practice Demonstration (MAPCP). For many participating practices in the Blueprint programs, the inclusion of Medicare beneficiaries was imperative to assure the financial ability of a practice to provide medical home services to all of their patients.

Is the VT Blueprint saving money? In analyzing some of the early participants in the Blueprint project, a comparison has been made to matched control populations in the same pilot markets for commercially insured populations. Trends suggest that the Blueprint is slowing the growth on overall expenditures compared to controls but analysis is limited by small sample size and variability. Medicaid and Medicare data are now being analyzed and hopefully will include more expenditure and utilization measures.

What is lacking in the Blueprint is that no one has articulated what incentives are necessary for primary and specialty practices to truly function in a way that reduces the real drivers of
cost, like reducing avoidable complications of care. The Vermont program relies on creating a variety of programs that provide changes in the structure of care, assuming that once the infrastructure is in place, that they will function to deliver better, more cost-effective, patient centric care. Physician practices are yearning to know that if they are NCQA certified medical home, that they are doing well in managing chronic conditions. They have no idea whether they can be effective at providing excellent quality of care that also provides for financial savings. Vermont physicians and hospitals need to having clinical and financial dashboards that let them know how they are doing compared to a budget established for the care of patients. They need a different payment mechanism than FFS—one that establishes a financial risk if we don’t manage resources in an appropriate manner. The Blueprint is providing better reporting and patient—practice attribution but is doing little to look at incentives that reward them for taking on risk for financial and clinical outcomes.
Appendix G: Michael Neuss, MD

Episodes of Care

There is widespread belief that episode based payments will control the wide variation in cost and quality of patient care. The basis for this seems to be previous experience with diagnosis related groups for inpatient care. A recent CMS program is allowing providers to expand this methodology to include both physician and post discharge services in DRGs, and previous experience in both solid organ and stem cell transplants would indicate that this type of payment can be successful for all parties allowing predictable expenses and the opportunity for improved margin for providers.

I have participated in this type of payment arrangement and note that many unnecessary tests and procedures can be eliminated. This results in reducing patient inconvenience and in some cases even decreasing the risk of untoward events.

However, one also observes that two clear problems develop in this type of payment. The first is one of attribution. This is also of two types. On one hand, one must address attribution of responsibility for the care delivered. We want all parties aligned in coordinating care and promoting overall efficiency. However, because of a fear of “gatekeepers” generally anyone can do anything they believe to be indicated for the patient. This lack of accountability hampers measurement of both under and over-use. Additionally, one must decide how payments are attributed (more correctly credited) to particular elements of charges so as to prevent gaming of the system that bundles are supposed to address. For example, if a total payment for a stem cell transplant is to be divided up, if the money is be simply divided up proportionally based on charges (or RVUs), the system continues to promote excessive services and competition for payment. Second, the whole of utilization accounting is turned upside down. We now want to see fewer visits in addition to lower readmission and decreased lengths of stay. It’s important to educate administrators about this.

Population Payments

Episode payments on an individual case rate are one consideration. However population based payments for everyone within a pool of insured parties add actuarial to medical case rate risk and very quickly increase the magnitude and likelihood of overall costs exceeding those which were anticipated. This is simply because the cost of a disease episode resulting in a lower than average cost has only the opportunity for a finite savings and a higher than average cost may increase infinitely. This makes it much more important, if more difficult; to monitor costs as the episode is proceeding. This is particularly an issue in all self-insured plans (ERISA exempt) plans. This makes it necessary for providers to not only organize as groups to provide care, but also functions as (or deal with) insurance underwriters. It’s not easy to be an actuary and it’s even more difficult to have adequate capital to take on this type of risk. Yet current systems demand that we do to provide the contract to provide care to a particular group.

Pay for Performance and Innovation

The current universal desire to control medical costs has curtailed innovation to some extent. The parts of patient care which might add to the greatest immediate benefit, for example, the reduction in unnecessarily aggressive treatments at the end of life, have great potential to hold down costs to the system. We have been trying to institute a system to improve hospice consideration for patients with advanced malignancy. But the time spent discussing this with patients is paid for at a lower rate than other services, and therefore, particularly as cost constraints curtail the adoption of new CPT codes, it’s very difficult to move this forward.
Appendix H: W. Douglas Weaver, MD

**Michigan Primary Care Transformation Project (MiPCT)**

The project is a three-year multi-payer project that will expand the typical capabilities of medical homes. Emphasis is put on prevention and uses health information technology, care coordination and shared decision making between patients and their providers to improve chronic illness and preventive care. The project will evaluate the extent to which medical homes reduce unjustified variation in utilization and expenditures; improve the safety and efficiency of healthcare; increase shared decision making; and increase evidence-based care in historically underserved areas. Participants receive incremental funds from CMS, Medicaid and participating commercial health plans to support care coordination, administrative expenses and retrospective performance incentives. Care management is funded through claims submission of G-Codes and CPT4 codes for care coordination through face-to-face, telephone and group encounters.

Infrastructure must include patient registry/EHR; care management documentation; 30 percent open access slots in primary care; extended hours; 24/7 access to a decision-maker; the ability to provide patient risk assessments, population stratification and clinical metrics reporting. MiPCT participants must contact patients who have been discharged from an inpatient facility by phone within 48 hours of discharge and schedule a visit with the primary care physician and/or specialist within one week of discharge. The primary care physician must be using a registry or EHR to identify, track, and manage patients with diabetes, asthma, cardiovascular disease and pediatric obesity. To qualify for performance incentives, MiPCT participants are scored on enhanced access, patient registry functionality, and care management. Incentive payment amount is dependent upon the decile ranking of the physician organization.

The payors provide $4.75 up to $9.75 PMPM payments for care coordination, administration and incentives for performance. In addition billings for telephone discussions range from $14 to $41 dollars, for group visits $10.50 to $14 dollars and for physician encounters and assessment $56 to $113 dollars—none of which were previously billable.

**BCBS of Michigan: Initiatives to Improve Cardiovascular Care**

Since 1997, the BCBS Cardiovascular Consortium—Percutaneous Coronary Intervention (BMC2- PCI) was established in hospitals which participate in the ACC’s National Cardiovascular Data Registry (NCDR) of cardiac catheterization and percutaneous coronary intervention. Participation is voluntary. BCBS of Michigan’s approach was not to tell providers what to do, but to empower providers to incorporate the workings of comparative effectiveness research into daily practice work in a collaborative and coordinated way to identify best practices in PCI and to implement them in a systematic way into standard of practice. As a result of these initial efforts, quality and outcomes of care dramatically improved and the cost of care decreased.

In the years since the PCI registry was supported, many other similar quality improvement initiatives have been launched in partnership with BCBS and Blue Care Network of Michigan. They include collaboratives in cardiothoracic surgery, percutaneous vascular interventions and vascular surgery (the Vascular Intervention Collaborative [VIC]), breast cancer, trauma, and others. These quality improvement efforts have achieved significant reductions in key complications including kidney injury, vascular complications, the prevention of unnecessary transfusion and coronary artery bypass graft surgery. Results have been accomplished through the voluntary initiative of hospitals and physicians reviewing their own confidential patient care data and working together to improve patient care practices and outcomes.

BCBS of Michigan reimburses each hospital for the necessary hospital staff time to collect and enter the data. Participants must meet quarterly together to discuss results and define areas in which there is the potential to improve performance. In addition, BCBS of Michigan funds a coordinating center to organize meetings, format the quarterly reports, and audit the data.

The amount of financial support each hospital receives from BCBS of Michigan is dependent of a number of variables including the volume of patient records being abstracted at the hospital. Over a three-year period, these programs have produced $232.8 million in health care cost savings and have
lowered complication and mortality rates for thousands of patients. Through this “value partnership, BCBS and BCN of Michigan have fostered development of a health care culture in which all stakeholders pool their efforts and best thinking to continuously optimize practices, systems, and outcomes of care.

Each participating hospital within a hospital Collaborative Quality Initiative (CQI) is paid through two mechanisms: a Participation Payment and a P4P CQI Performance Index Payment. The Participation Payment is made prospectively and is designed to support the cost of a nurse data abstractor. Participating sites receive annual FTE funding based on case volume (e.g one FTE per Y number of cases). The P4P CQI Performance Index Payment is a retrospective payment tied to BCBSM’s hospital Pay for Performance (P4P) program. Each CQI is weighted at 4.0% of a hospital’s P4P score; the number of CQIs that will be included in the index for P4P scoring purposes will not exceed 10. A hospital can earn up to 40% of their P4P payment as a result of their performance on the CQIs.

**BMC2 Case Volume**

1. PCI
   - 1000 cases per FTE (1 FTE = $72,960)
   - 2012 data abstractor FTE payment range per hospital: $19,553-$155,405
2. VIC
   - 500 cases per FTE (1 FTE = $72,960)
   - 2012 data abstractor FTE payment range per hospital: $5,837- $218,880

**ACC’s Appropriate Use of Cardiac Nuclear Imaging Project (FOCUS)**

The Delaware Insurance Commissioner required that BCBS of Delaware will support use of the ACC’s FOCUS instead of radiology benefit managers. Under the agreement, BCBS of Delaware will pay for cardiologists in the state to use the online decision support tool for cardiac imaging tests. This agreement was in response to complaints that consumers were being denied access to necessary diagnostic imaging. It is also hoped to reduce administrative costs and the time delay until an appropriate imaging test is done. The reimbursement to physician practices is $300,000 over a 3 year period. Physicians receive immediate notification of whether the test is classified as appropriate or not given the patients history and findings utilizing the ACC AUC criteria for SPECT imaging. Earlier FOCUS projects have shown the number of inappropriate studies drop of between 15% to 20% during implementation initial period and averaged off to 8% to 10% per site. The project will be reevaluated approximately 3 years after implementation with ongoing monitoring throughout that time frame.

The SMARTCare program has been developed by the ACC’s Wisconsin and Florida Chapter Presidents in collaboration with ACC national staff. It engages the state based purchaser and payer coalitions towards adoption of a bundled payment model for coronary artery disease (CAD) patients with stable ischemic heart disease. The project will employ tools that tabulate performance measures, derived from ACC published appropriate use criteria and risk models, using individual patient clinical data reporting and specific quality performance targets. The goals of the program are to reducing unnecessary cardiac imaging, inappropriate percutaneous coronary interventions (PCI), reduce procedure related bleeding complications and increase clinical guideline adherence. Tools deployed as part of the program include the ACC’s FOCUS and NCDR in-hospital-based CathPCI Registry and practice-based PINNACLE Registry as well as those developed through partnerships such as risk outcome assessment and appropriate care referral through with Health Outcomes Sciences on the ePRISM tool. Assuming $100,000 in implementation costs, an average hospital should be able to recover 2 to 3 times this investment in revenue from the bundled payment even after accounting for the lost margin on the avoided cases. A key challenge is obtaining multiple payer buy-in, but these projections are considered achievable even if just commercial payer opt in with the bundle since their beneficiaries are the most likely to account for the majority of the avoided cases.

WellPoint, Inc. has incorporated specific metrics reporting using the ACC’s CathPCI Registry in their enterprise-wide hospital pay for reporting program, Quality-In-Sights: Hospital Incentive Program (Q-HIP). The Q-HIP program was originally developed by Anthem BCBS in Virginia, and the ACC’s Virginia Chapter worked closely with Anthem to ensure clinically robust quality improvement and outcomes measures were incorporated into the program. Other payer-based programs have similarly incorporated registry reporting as a key component, such as United Healthcare Services Premium Cardiac Specialty Center and BCBS Association’s Blue Distinction Centers for Cardiac Care Program, but these programs focus on preferred designations for hospitals to guide beneficiaries rather than direct monetary incentives.”