



# Alternatives to Fee-for-Service Payments in Health Care

Moving from Volume to Value

Maura Calsyn and Emily Oshima Lee September 2012

Center for American Progress



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# Introduction and summary

Our nation's health care system is high cost and high volume, but it is certainly not high value. This year, we will spend more than \$8,000 per person on health care, which is more than twice the average of \$3,400 per person in other developed nations.<sup>1</sup> But spending more on health care has not made us healthier.<sup>2</sup> Even within the United States, different areas of the country spend very different amounts on health care, again with no correlation to better outcomes.<sup>3</sup>

One of the key reasons for the high level of health care spending and its rate of growth is the predominance of the fee-for-service payment system, which rewards quantity over quality, especially for high-cost, high-margin services. Under this system, health care insurers, including Medicare and Medicaid, pay doctors, hospitals, and other health care providers separately for different items and services furnished to a patient. As of 2008, 78 percent of employer-sponsored health insurance was fee-for-service.<sup>4</sup>

Fee-for-service payments drive up health care costs and potentially lower the value of care for two main reasons. First, they encourage wasteful use, especially of high-cost items and services. Second, they do nothing to align financial incentives between different providers. As a result, patients receive care that they do not need and may not want, and health care providers may not be on the same page about what type of care the patient should receive. It is not just insurers who bear these unnecessary costs: These costs raise premiums, deductibles, and cost-sharing for all health care consumers.

Moreover, the fee-for-service system does nothing to encourage low-cost, high-value services, such as preventive care or patient education—even if they could significantly improve patients' health and lower health care costs throughout the system. Many patients with poorly controlled diabetes or heart failure, for example, enter hospitals needing acute care when their conditions could be managed with better preventive disease management, which would eliminate the need for costly hospital stays.<sup>5</sup>

But there are signs this trend is changing. The Affordable Care Act includes a variety of payment and delivery system reforms designed to control costs and improve care, especially in the Medicare program. These reforms both complement existing private-sector innovations and encourage even wider adoption of alternatives to the existing fee-for-service system. Instead of basing payment solely on the volume and price of the items and services provided to patients, these alternative methods of payment create incentives to encourage preventive care and better care coordination, especially for patients with chronic illnesses.

Although many of these efforts are in beginning stages, early experiences of health care providers piloting these alternatives to fee-for-service are promising. Their initial experiences and results suggest these reforms can lower costs while increasing quality of care.

This paper examines three promising alternatives to fee-for-service payments:

- **Bundled payments**, which are fixed amounts paid to health care providers for a bundle of services or all the care a patient is expected to need during a period of time
- **Patient-centered medical homes**, which are redesigned primary care practices that focus more on preventive care, patient education, and care coordination between different health care providers
- **Accountable care organizations**, which are groups of health care providers who agree to share responsibility for coordinating lower-cost, higher-quality care for a group of patients

This report does not review every health care reform project underway in our nation, of which there are hundreds. Instead, it compiles and highlights recent data from organizations testing each of these reforms. This report also includes new findings from our conversations with a variety of health care providers and payers who are implementing these reforms. Together, these data and feedback highlight key lessons, strategies for success, and implementation challenges that can help guide the movement away from our current, fragmented payment system to one that is high-value and patient-focused.

These alternative methods of payment create incentives to encourage preventive care and better care coordination, especially for patients with chronic illnesses.

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## Payment reforms in practice

Consider the case of a patient with heart disease who is also in cancer remission. The patient arrives in the emergency room with a broken hip after a fall. Over the next 24 hours, hospital doctors not only treat the broken hip, but also run tests to monitor his heart and check if his cancer has returned; even though he just had his annual check-ins with his oncologist and cardiologist. After three days in the hospital, he is discharged to a nursing home for rehabilitation and further recovery.

During his two-week stay at the nursing home, he travels to and from his cardiologist's office by ambulance to follow-up on the hospital's test results that vary only slightly from the results from his previous check-in. And once he returns home, a home health nurse visits twice a week for three weeks to continue his rehabilitation and monitor his heart. For the first week he is at home, he continues to take a prescription pain reliever.

Here's how Medicare or another insurer would pay for this care under the fee-for-service system:

- Payment to the hospital to cover room and board, nursing services, prescription drugs, other supplies and equipment, and all diagnostic and therapeutic services during the hospital stay
- Separate payments for the services provided by the physicians who cared for the patient during the stay
- A daily payment amount to the nursing facility to cover room and board, nursing services, prescription drugs, and rehabilitation services during his nursing home stay
- Payment to the ambulance company for transporting the patient to and from his cardiologist's office
- Payment to the cardiologist for the visit during the nursing home stay
- Payment to the home health agency for visits after the patient returns home
- Payment for the prescription pain reliever after the patient returns home

This fragmented payment system results in each of these providers having different incentives. Even in this example, where a patient did not undergo particularly expensive treatments, there are inefficiencies and waste. Because the hospital is paid a set fee for the inpatient stay, it has an interest in using fewer hospital resources during the stay and discharging the patient as quickly as possible. At the same time, physicians benefit if the patient needs expensive diagnostic tests

because they are paid per-service and higher-cost items and services have higher payment amounts.

Under the existing system, there is no financial downside to physicians and other health care professionals that provide unnecessary care. And without coordination between each of the different providers, it is even more likely that the patient received duplicative services, all of which are paid for separately under a fee-for-service system.

Each of the three payment reforms highlighted in this report—bundled payments, patient-centered medical homes, and accountable care organizations—is designed to lower costs both for payers and patients and to improve not just patient outcomes but also patients’ experience as they move through the health care system.

### Bundled payments

Instead of paying separately for each individual service, the insurer would pay a set amount for the inpatient hospital services and physician services, as well as the post-acute care services. Because the insurer would pay a fixed amount to health care providers to treat the patient following his fall, all providers would have an incentive to coordinate care that the patient actually needs. And because the providers’ reimbursement amounts would depend in part on meeting quality and patient experience measures, the entire team of providers would be focused on improving quality.

### Patient-centered medical homes

The goal of this delivery system reform is to encourage preventive care and wellness and prevent unnecessary hospitalizations. In this example, the medical home’s nurse care coordinators may have discussed ways to avoid falling as part of their ongoing preventive care and patient education efforts. And they would also play an important role after his discharge from the hospital to help ensure that he is not later readmitted—either for his injuries from the fall or for his other health problems.

In a medical home setting, the patient would have an ongoing relationship with his primary care physician’s office instead of uncoordinated relationships with various specialists such as his cardiologist and oncologist. The medical home would also be aware of the patient’s health status and recent doctors’ visits.

Each of the three payment reforms highlighted in this report is designed to lower costs both for payers and patients and to improve not just patient outcomes but also patients’ experience as they move through the health care system.

## Accountable care organizations

Under this payment method, the patient would also benefit from greater coordination between his health care providers. Individual physicians and other providers would continue to be reimbursed separately, but there would be greater coordination, and each provider would have an incentive to provide high-value care. Health care providers who participate in an accountable care organization share in savings if they collectively are able to provide high-quality care to their patients at lower costs.

The rest of this report will look at these three alternatives to fee-for-service payments in more detail, beginning with bundled payments.

# Bundled payments

In contrast to the current fee-for-service reimbursement system, bundled payments encourage and reward care coordination and cost reduction among a patient's providers. A bundled payment compensates all of a patient's health care providers with a single, fixed, comprehensive payment that covers all of the clinically-recommended services related to the patient's treatment, episode, or condition over a defined period of time. These payments can be adjusted based on the patient's health status.

Depending on the patient's diagnosis or needed treatment, bundled payment can include payment for hospital, physician, laboratory, and rehabilitation services, among others. Bundled payments include strong financial incentives for health care providers to more efficiently deliver high-quality care and contain costs: If providers deliver all services within the episode of care for less than the bundled payment amount and meet quality targets, they are allowed to keep the remainder. Health care providers receiving bundled payments also are responsible for any costs of care that exceed the amount of the bundle. (see Box)

This alternative method of payment encourages health care providers to work together to coordinate care and deliver all of the episode's care components prescribed by clinical guidelines, reducing fragmentation and unnecessary or duplicative care. Tying financial incentives to evidence-based quality measures encourages health care providers who receive bundled payments not only to reduce excess costs and eliminate waste but also to improve quality of care.<sup>6</sup> Importantly, bundled payment models include a number of safeguard mechanisms, including the use of quality targets, to ensure that providers do not skimp on providing necessary care or avoid high-cost or high-risk patients.

## What does a bundle look like?

Defining what's included in an episode-of-care bundle is one of the most challenging aspects of implementing bundled payments. For instance, a bundled payment for total knee replacement surgery could begin after diagnosis of a joint problem, and before hospitalization for the surgery. The episode would include payment for the services of the orthopedic surgeon, as well as operating room fees (including anesthesiology), and post-acute care for 30 days following discharge. This bundle could also be expanded to include physical therapy services and post-acute care services for 90 days after discharge. Thus, the bundled payment could include reimbursement for several different providers: the hospital, anesthesiologist, surgeon, and rehabilitation facility.

Although bundled payments could be used to group any number of different services and conditions, they are most commonly used to

bundle inpatient procedures. Bundles for hip and knee replacement surgeries, in particular, are the most common inpatient procedures.<sup>7</sup>

Costs for these procedures are more readily bundled because the episode is relatively easy to define, and care procedures can be standardized fairly easily. Other types of bundles include those for outpatient procedures, chronic medical conditions, and acute medical conditions. All bundles must define which services are included; the duration of the bundle; and the criteria for patient eligibility.

Ultimately, insurance payers and health care providers must define which services and which providers are covered in a bundled episode payment.

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### The potential of bundled payments

Bundled payments offer benefits for payers, providers, and patients. Using bundles has the following benefits:

- More coordinated patient care for improved health outcomes and lower costs
- Reduced variation in spending and clinical treatments to reduce costs
- Greater transparency and accountability on price and quality
- Allow providers to transition to wider-scale payment reforms

We'll now detail these benefits.

#### More coordinated patient care for improved health outcomes and lower costs

Bundled payments encourage all providers caring for the same patient to focus on coordinating care, which can reduce costs several ways. This includes reducing variation in clinical treatment pathways to ensure that all patients receive

evidence-based best care practices, avoiding preventable hospital readmissions, and streamlining services across all providers to eliminate waste and determine the most efficient mix of services for the patient.

Coordination is particularly important for beneficiaries with multiple health concerns. For instance, 90 percent of Medicare beneficiaries report having one or more chronic condition, with nearly half of all beneficiaries living with three or more conditions.<sup>8</sup> The care needed for even one condition can be substantial: 57 percent of episodes for hip fractures require care in four or more care settings.<sup>9</sup>

### Reduced variation in spending and clinical treatments to reduce costs

Currently, there are large variations in spending and clinical treatments for many conditions across health care providers.<sup>10</sup> For instance, costs for chemotherapy regimens for the same diagnosis varied 100 percent across five oncology groups.<sup>11</sup> Additionally, the spending for a total episode of chronic obstructive pulmonary disease for Medicare beneficiaries varied by as much as 53 percent (\$3,376).<sup>12</sup>

A recent analysis of a sample of Medicare patients showed large geographic variations in spending for the 17 most expensive conditions. If bundled payments were used to cap these variations to the lowest 25th percentile, annual Medicare savings would be \$10 billion. Even with a smaller cap at the 50th percentile, bundling could yield \$4.7 billion in savings.<sup>13</sup> The study notes that episode-based bundles have the potential to save nearly as much as larger-scale payment reforms, such as population-based bundled payments used by some accountable care organizations.<sup>14</sup> (see Appendix A on page 44 for details)

While substantial cost variations for treatment of the same condition for Medicare patients is in part driven by geographic variations in spending, cost variations across health care providers in the same hospital system or physician group are more likely driven by differences in physicians' clinical treatment decisions. Episodic bundles can address this source of variation by defining an episode around evidence-based clinical practice guidelines, encouraging providers in the same area to streamline order sets and adhere to best practices.

The Baptist Health System in Texas, a participant in the Medicare Acute Care Episode demonstration, reported that under the existing fee-for-service system, orthopedists used 98 different order sets for total knee replacement surgery. After

## Case study: Baptist Health System<sup>17</sup>

### Orthopedic surgery bundled in the Medicare Acute Care Episode demonstration

Baptist Health System, a five-hospital system in San Antonio and South Texas with over 2,700 doctors, was one of the first participants in Medicare's Acute Care Episode demonstration. Baptist Health administrators applied for the demonstration in hopes of increasing physician alignment. When Baptist Health began the demonstration in 2009, many doctors were skeptical, with some surgeons deciding to leave the health system altogether. Yet strong physician leaders, an administrative team that sought to keep physicians actively engaged in the process, and financial incentives that allowed doctors to share in savings without assuming risk convinced skeptical physicians to embrace the program.

#### Results

Although Baptist Health implemented both the cardiac and orthopedic surgery bundles outlined in the demonstration guidelines, senior vice president Michael Zucker reports that Baptist Health made the biggest quality and savings gains through their orthopedic bundles, primarily because of a strong level of leadership among orthopedic surgeons.

Patients, physicians, and the hospital system all realized immediate results. Cost savings allowed patients, the hospital system, and Medicare to save money, and several doctors received gain-sharing payments in the first month. As of December 2011, Baptist Health reported the following results for the approximately 7,000 Medicare patients who participated in the demonstration for cardiac and orthopedic surgeries:

- Beneficiaries' shared savings: \$1 million (an average of \$275 per patient)
- Physicians' shared savings: \$976,000

Additionally, Baptist Health leveraged cost savings not only for Medicare beneficiaries but also for every patient who met the clinical qualifications. Patients who were treated in the same diagnosis-related groups but were covered by a payer other than Medicare also benefitted from the improved process and savings. This enabled Bap-

tist Health to realize a total savings of approximately \$8 million across all patients treated in these diagnosis-related groups. Baptist saved on the lower negotiated prices for devices for non-Medicare patients.

Additionally, use of bundled payments accelerated a large shift toward use of evidence-based practices. There were immediate quality improvements, with physicians moving from 98 different order sets for total knee replacement surgery to just one order set within two months. Here again, physician leadership and engagement were key: The one order set for knee surgery was developed locally and vetted by doctors based on evidence-based guidelines. Prior to participation in the demonstration, there was tremendous variation in the use of order sets for a single procedure by Baptist's orthopedic surgeons. After developing standardized order sets for procedures, within one year, 97 percent of Baptist's orthopedic surgeons were using the same guideline-based procedure. Other immediate quality improvements were related to appropriate and timely antibiotic selection and use and smoking cessation orders.

#### Key lessons learned by Baptist Health

Define the vision from the outset and establish a number of short-term, achievable objectives. Success is driven by increased alignment of providers and made possible through gain-sharing incentives and transparency about quality and cost performance data.

Strong physician engagement is critical, as is empowering physicians to own program leadership, governance, and decision-making. Enfranchising physician leaders also helps to avoid creating the perception of "just another hospital initiative." Communicating openly with physicians creates opportunities for shared learning experiences.

Invest in organizational capacity building, but engage in robust analytics to ensure program viability before making major investments, such as developing comprehensive payment infrastructure and processes. This is critical, as administering the program can be labor intensive. Dedicate sufficient executive time to support program implementation.

## Case study: Baptist Health System (continued)

One of the biggest opportunities for savings may be in negotiating savings on devices and other commodities. Because surgeons' personal relationships with device manufacturers made it difficult to negotiate device prices at first, Baptist Health initially limited the number of vendors it would purchase from to increase price competition. In the second year of the demonstration, the hospital system held a reverse online auction, allowing it to bring back in all vendors.

### Next steps for Baptist Health

Baptist Health plans to build on its experience and to continue to encourage further efficiencies. Baptist Health also is preparing to

implement post-acute care bundled payments and is also exploring the possibility of contracting with commercial insurers to implement bundles. Baptist Health applied to the Centers for Medicare & Medicaid Services' Bundled Payment for Care Improvement pilot (see page 13 for details), and would like to use a model that allows them greater gain-sharing flexibility. In addition, it is also exploring other payment reform opportunities, such as accountable care organizations.

joining the demonstration program, the orthopedists collaboratively identified one order set based on clinically accepted guidelines and local practice considerations.<sup>15</sup> Net savings for orthopedists after two years of participation in the program were approximately 15 percent to 20 percent.<sup>16</sup> For a more in-depth look at Baptist's experience and results, see our case study on the Baptist Health System.

## Greater transparency and accountability on price and quality

Bundled payments create incentives for health care providers to take broader accountability for patient care, outcomes, and resource use.

## Allow providers to transition to wider-scale payment reforms

Bundled payments also offer health care providers the opportunity to implement payment reform gradually, using a different payment system for only a select number of clinical episodes. This can allow providers needed time to build organizational capacity for larger-scale reforms, such as incorporating bundled payments into an accountable care organization.

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## The evolution of bundled episode payments

Although an increasing number of organizations have implemented bundled payments in the past few years, the concept of bundled reimbursement is not new. Bundled payments have been developed over past decades through efforts in both the public and private sectors. This section of the report will look at bundled payments in the public and private sectors before and after the passage of the Affordable Care Act in 2010.

### Bundles in the public sector

Medicare generally pays a single, bundled amount for inpatient hospital services, including room and board, nursing care, and diagnostic and therapeutic items and services, based on the patient's diagnosis and severity of illness. In addition to this diagnosis-related group-based payment for hospital services, Medicare pays physicians separately for their services during the inpatient hospital stay.

Additionally, in 1991, the Centers for Medicare & Medicaid Services began an episode-based payment demonstration project for coronary bypass surgery. The seven participating hospitals received bundled payments for Medicare parts A (inpatient hospital services) and B (physician services), plus any readmissions within 72 hours. (see Appendix A) While this demonstration lowered Medicare spending and improved quality, Medicare did not expand the program after it was completed in 1996.<sup>18</sup>

In 2009, however, the Centers for Medicare & Medicaid Services began the three-year Acute Care Episode demonstration project for cardiac and orthopedic procedures for Medicare beneficiaries. This demonstration is ongoing, with the potential for expansion under the Affordable Care Act.

The demonstration evaluates use of bundled payment for the inpatient hospital (part A) and physician (part B) care for 37 orthopedic and cardiovascular procedures. The demonstration covers 28 cardiac procedures (including coronary bypass and pacemaker procedures) as well as nine orthopedic procedures (including hip and knee replacement surgeries), and seeks to improve the quality of care for Medicare beneficiaries while providing savings for beneficiaries, providers, and the Centers for Medicare & Medicaid Services.

Bundled payments have been developed over past decades through efforts in both the public and private sectors.

Each of the five pilot sites determined its own gain-sharing arrangements for providers. Medicare patients can also benefit from savings, receiving up to 50 percent of what Medicare saves on Acute Care Episode procedures up to a maximum of the annual Part B premium. Beneficiaries who voluntarily select providers with strong quality and cost records at designated Medicare Value-Based Care Centers will receive savings approximately 90 days after discharge.

Though overall results from these pilot sites have not yet been published, available results from at least one participant illustrate the potential for bundling to significantly reduce costs, reduce clinical practice variation (and thus increase provider adherence to best practice guidelines), increase price and quality accountability and transparency, and improve patient care. See the case study on page 9 for a more detailed account of Baptist Health System's experience as a participant in this demonstration project.

### Bundled payments and the Affordable Care Act

The Affordable Care Act requires the Department of Health and Human Services to explore several alternative payment models, including bundling. The law does this in two ways.

First, the Affordable Care Act authorizes the National Pilot Program on Payment Bundling in Medicare. Currently, the Centers for Medicare & Medicaid Services pays a single amount for many of the services provided during a Medicare beneficiary's inpatient hospital stay, as well as during the three days preceding admission. Payment under Medicare's Inpatient Prospective Payment System takes into account the patient's diagnosis as well as some patient risk factors and includes a number of adjustments such as those based on the hospital's location.<sup>19</sup> Medicare pays separately for post-acute care.

Bundles in the National Pilot Program will cover payment for hospital and post-acute care, delivered by participating providers, including physician services.<sup>20</sup> Specifically, the Affordable Care Act defines the episode time frame as starting three days before hospitalization through 30 days after discharge. The secretary, however, is allowed to alter this time frame. Services covered in the pilot include:

- Acute inpatient hospital care
- Outpatient hospital services
- Emergency room services
- Physician services delivered in and out of the hospital
- Post-acute care such as physical therapy
- Other appropriate services as determined by the secretary such as care coordination or transitional care

Participation by Medicare providers is voluntary. Pilot participants can include hospitals, physician groups, or a combination of health care providers, who will be reimbursed using bundled payments for the care they provide to eligible Medicare beneficiaries enrolled in traditional Medicare.

The program begins January 1, 2013, and will run for five years. Importantly, the secretary of the Department of Health and Human Services has the authority to expand and extend the pilot if early results indicate that the program will reduce Medicare spending and improve the quality of care for beneficiaries.

Second, the Center for Medicare and Medicaid Innovation used its authority under the Affordable Care Act to develop the Bundled Payments for Care Improvement initiative. Under this initiative, health care providers select the clinical conditions that will make up the bundles to be tested, as well as how to allocate the bundled payment among providers. Payments for three of the four models in this initiative are retrospectively set, with the fourth method's payment set prospectively. Eligible services differ for each method: inpatient stay only, inpatient plus post-discharge services, and post-discharge services only.

### Bundles in the private sector

Private-sector payers and health care providers are also designing and implementing bundled payments. For an in-depth look at an example of bundled payments in the private sector, see our case study on UnitedHealthCare's oncology bundles on page 15.

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## Designing and implementing bundling programs

While results from bundled payment programs show the potential for significant cost savings and care improvements, there can be several challenges in developing and implementing a bundled payment program. These challenges, as well as common characteristics of successful bundled payment programs, are outlined below.

### Challenges and lessons learned

#### *Defining the episode*

Determining which services to include, the duration of the bundle, and which patients will be eligible for the bundled payment can be incredibly challenging. Decisions need to be made in at least four key areas:

- **Included services.** Insurance payers and health care providers must decide which services are clinically relevant to the defined group of patients for the specified procedure or period of time. Physical therapy, for example, is commonly included in a bundle for joint replacement surgery because it is considered essential to recovery for the vast majority of patients.<sup>23</sup> Which services are included can also be determined by the scope of services the participating provider organization is able to deliver.
- **Duration of bundle.** After defining the episode, organizations must determine an appropriate time frame for the bundle. Health care providers and payers must consider the typical time frame for the procedure and when the majority of spending occurs. Procedural bundles can start as early as 30 days before the procedure and end as late as 180 days after the procedure.<sup>24</sup>
- **Patients included.** Health care providers must identify which patients will be included in a bundled payment agreement. For instance, patients with multiple chronic conditions with need for additional care beyond a standard bundle of services may not be included.
- **Payment amount and adjustments.** Finally, providers and payers must ensure that the payment for the bundle sufficiently covers the cost of necessary services but is lean enough to encourage efficient use of services. Additionally, organizations may also use risk-adjusted payments for patients with greater care needs.

These adjustments ensure that providers are fairly compensated for any additional care a patient may need, and also ensure that doctors are not discouraged from seeing patients who require more care.

#### *High technical and administrative costs*

For health care providers, determining prices for bundles (either retrospectively or prospectively), administering claims, collecting and analyzing cost and quality data, and providing physicians with regular quality scorecards requires high organizational and technical capacity. These critical steps also require staff time. Investing in the technical and personnel infrastructure needed to successfully implement and manage a new form of payment can be challenging for many organizations. Although some providers receive assistance from payers in executing several of these tasks, other provider organizations must be able to complete them on their own.

## Case study: UnitedHealthCare

### Oncology bundles

UnitedHealthCare, a division of UnitedHealth Group, the largest single health carrier in the United States, began using episodic payment for chemotherapy in 2010 to address the high cost of these drugs and to encourage oncologists to adhere to evidence-based clinical pathways. The pilot program includes five large oncology groups, pays for 19 clinical episodes in breast, colon, and lung cancers, and differentiates between regimens intended to cure patients and those used for palliative care.

Each medical oncology group selected the treatment regimen it felt was most effective for each of the episodes. Oncologists also committed to achieving a number of performance and quality measures, including patient survival and relapse-free survival rates and hospitalizations for complications. The groups meet annually to compare clinical results and identify best practices in clinical treatments, allow-

ing for real-time comparative effectiveness evaluations. This comparative data, according to Dr. Lee Newcomer, UnitedHealthCare's senior vice president for oncology, women's health, and genetics, is the "real innovation" of the program.<sup>21</sup>

Although Dr. Newcomer cautions that the program alone does not solve the problem of high costs of cancer drugs, early published results from the United pilot program indicate that it can create greater provider alignment around treatment pathways and can significantly reduce cost variation. Prior to the program, costs of treatment varied by as much as 100 percent among the oncology groups.<sup>22</sup>

One way some organizations choose to address these challenges is by working with a third-party that has pre-defined episodes for bundled payments. The PROMETHEUS payment model, for example, is a software system that includes 21 pre-defined bundles, called “Evidence-informed Case Rates,” which are payment options for chronic conditions, acute medical care, and procedural hospital care. PROMETHEUS’s Evidence-Informed Case Rates have strong incentives for clinical collaboration and bonuses for quality improvement. These potential bonuses are determined through use of a comprehensive quality scorecard, which tracks reduction of potentially avoidable complications.<sup>25</sup> Although front-end capital is a challenge for the majority of medical organizations, many believe that investing in the necessary infrastructure has allowed them to prepare for an inevitable systemwide shift away from fee-for-service payments.

Two keys to success: strong physician leadership and investments in organizational capacity.

### Keys to success

Provider organizations have found two attributes critical to overcoming some of the above implementation challenges: strong physician leadership and investments in organizational capacity.

#### *Strong physician leadership*

Our interviews with several organizations using bundled payments illustrated that having strong physician leadership, particularly in early stages of design and implementation, is central to a successful program. Other reports surveying organizations using bundles affirm this.<sup>26</sup>

As organizations begin reforming payment structures that require changes in the way physicians deliver care, it is essential to engage committed physician leaders to help on-board other providers, provide feedback on the implementation process, and engage in the selection and design of episodes and quality and performance measures. Physician leaders were often well respected by their peers, had good relationships with other providers and administrators, and were invested in providing regular, earnest feedback about the program. (see Baptist Health case study on page 9).

#### *Investment in organizational capacity*

Developing a system for managing bundled payments and associated quality metrics requires significant technical and administrative resources. Thus, organizations that were able to make investments in necessary technology platforms and personnel were able to integrate the new payment model more readily.

# Patient-centered medical homes

Refocusing our nation's health system on primary care is critical to fixing many of the flaws in the current fee-for-service system. Unlike bundling, which modifies payment to reduce costs and align incentives during a discrete period of time or episode of care, the patient-centered medical home redirects attention to primary care services. In addition, this medical home model seeks to improve the way in which primary care doctors and their offices interact with patients not just during their scheduled office visits but on an ongoing basis.

Traditional fee-for-service payment does not compensate physicians for proactively engaging with patients or for the time or resources needed to help keep patients healthy when they are out of the doctor's office. To address this issue, patient-centered medical homes include a payment reform component, such as enhanced payments for care-coordination services and, in some cases, shared savings or bonus payments if medical homes meet quality and cost benchmarks.

Data show that focusing on primary care results in better outcomes at lower costs, and primary care physicians play a critical role in coordinating high-quality care.<sup>27</sup> Areas with more primary care physicians have lower rates of hospitalizations, lower Medicare spending, and higher quality. Studies suggest that the mix of primary care physicians and specialists accounts for much of the geographic variation in Medicare spending.<sup>28</sup>

Higher rates of primary care can prevent ambulatory care sensitive conditions from worsening, preventing hospital admissions and emergency room visits, as well as reducing the severity of cases when the patient is admitted to a hospital and lowering the costs associated with post-acute care.<sup>29</sup> And primary care is most effective when it is part of a coordinated system of care in which physicians communicate with their patients and other health care providers and caregivers about the patient's health status and health needs.

For this reason, medical homes hold particular promise for improving care while lowering system costs, especially for individuals with multiple or chronic illnesses.

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## Characteristics of a patient-centered medical home

The concept of a “medical home” is not new. The American Academy of Pediatrics first used the term in 1967.<sup>30</sup> Originally used to describe a single location for keeping medical information, the term now refers to patient-centered, proactive primary care.

The National Committee for Quality Assurance is an independent, not-for-profit organization that seeks to improve health care quality and develops quality standards for different health care providers and health plans.<sup>31</sup> The nonprofit organization’s patient-centered medical home program sets standards to evaluate a practice’s capability of performing as a medical home.<sup>32</sup> By the end of 2010, more than 7,600 clinicians at more than 1,500 practices had earned medical home recognition.<sup>33</sup>

All patient-centered medical homes generally share the following core features:<sup>34</sup>

- **Personal physician.** Each patient has a physician who is the primary contact for health care.
- **Physician-directed medical practice focused on the whole patient.** The personal physician leads a practice team that collectively takes responsibility for the ongoing care of patients either directly or by coordinating appropriate care by other health care providers.
- **Care coordination.** A medical home not only coordinates primary and preventive care but also acts as the “quarterback” for their patients’ other health care services, coordinating care across other providers.
- **Quality and safety.** The practice uses evidence-based medicine and engages in quality measurement and improvement activities.
- **Enhanced access to care.** The practice has expanded hours and offers new options for patient communication with doctors and the rest of the practice’s staff.

Medical homes hold particular promise for improving care while lowering system costs, especially for individuals with multiple or chronic illnesses.

- **Payment reform.** Payment that reflects the value of these other aspects of the patient-centered medical home, especially additional payment that accounts for the value of case management work that falls outside of patient visits.

The last of these features—payment reform—is critical to transforming primary care practices into medical homes. Most primary care practices are not structured to provide the type of ongoing, proactive patient-focused care that this model demands. There are significant start-up costs for practices that need to invest in health information technology and care coordinators, and even after these supports are in place the fee-for-service system does not adequately reimburse physicians for the time their practices spend in patient follow-up, education, and care coordination outside of in-person office visits.

To address these needs, payers use a variety of approaches. Payers may keep the existing fee-for-service structure in place but add new payments to help offset these added costs. These additional payments may include incentive payments to encourage higher quality outcomes. Other payers have taken a more comprehensive approach and have replaced fee-for-service payments with so-called global payments that compensate practices for all activities of the medical home, including expanded primary care services such as care coordination and ongoing patient education.<sup>34</sup>

Several prominent advocates of global payments in medical homes, including Dr. Allan Goroll of Harvard Medical School, argue in an article in the *Journal of General Internal Medicine* that a global payment model “realigns incentives and makes possible the establishment and operation of accountable, modern primary care practices capable of providing the personalized, coordinated, comprehensive care essential to a well-functioning health care system.”<sup>35</sup> Global payments, as outlined by Dr. Goroll and his co-authors, differ from ordinary primary care “capitation” (set fees for each member per month) models because the global payment includes a “net investment” in the practice, not just “the consolidation” of payments under the fee-for-service system.<sup>36</sup>

Under their approach, over two-thirds of the global payment amount to each medical home would be designated for care coordination teams and systems. Physician payments would also increase, contingent on quality and value. In addition, unlike some capitation models that place primary care practices at risk for overall spending for patients, including hospitalizations and ancillary services, primary care practices receiving global payments under this model are not at risk for those additional services. Global payments may also be risk- or needs-adjusted to reflect

individual practices' patient populations. Payers using global payments may also offer additional incentive payments or a share of any savings to practices that meet quality and cost benchmarks.

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## Patient-centered medical homes in Medicare and Medicaid

The patient-centered medical home model is gaining traction in both the Medicare and Medicaid programs. In fact, one of the nation's more established programs is the North Carolina Medicaid Community Care program. This 14-year-old program is a "virtual" community-based health home. Individual physicians enroll in a larger network and agree to be the patients' care managers. As care managers, physicians also help patients find more specialized care if needed.

The president of the Community Care program describes these networks as "virtual integrated health systems," with structures and supports including management committees, medical directors, and clinical pharmacists.<sup>37</sup> Medicaid pays these providers a monthly fee in addition to their ordinary payments. Data show patients whose physicians participate in the program have better outcomes and that the program saves money on their care.<sup>38</sup> A 2011 report ranked the North Carolina program in the top 10 percent in performance on national quality measures for diabetes, asthma, and heart disease compared with Medicaid managed care organizations.<sup>39</sup>

Other Medicaid patient-centered medical homes have also been successful. In Colorado, children enrolled in the state's Medicaid and children's health insurance plan medical home had lower median annual costs than Medicaid and children's health insurance plan-enrolled patients who were not part of the program. Children cared for by medical home practices also had higher rates of well-child visits than other Medicaid and children's health insurance plan-enrolled patients.<sup>40</sup>

As part of the Multi-Payer Advanced Primary Care demonstration program, Medicare is also partnering with states in a number of multipayer reform initiatives. This demonstration program pays a monthly care management fee to physicians for care coordination, improved access, patient education, and other supports for chronically ill Medicare beneficiaries receiving care in medical home practices. The program started in July 2011, and Medicare expects that by the end of the three-year demonstration approximately 1,200 medical homes serving more than 900,000 Medicare beneficiaries will participate in the program.<sup>41</sup>

The Affordable Care Act builds on these efforts and includes several provisions that should help expand patient-centered medical homes, including temporary enhanced payments for all primary care providers. The Affordable Care Act also established a new state option for Medicaid “health homes” for beneficiaries with chronic conditions.<sup>42</sup> Under the program, the federal government will pay for 90 percent of the costs for health home services during the first two years the program is in effect. The goal of the program is to encourage:

- Comprehensive primary care services, including care management, care coordination, and health promotions
- Transitional care for patients following inpatient care, including patient and family support, referrals for community and social support services, and health information technology to link providers

Each health team must develop a care plan for every patient that integrates all clinical and nonclinical services for the individual. Health homes under the program may be a single provider or a group of providers. Six states have already received approval.<sup>43</sup>

The health care reform law also established the Center for Medicare and Medicaid Innovation as part of the Centers for Medicare & Medicaid Services. The Innovation Center is using its authority to test payment and delivery system reforms to study the medical home method of payment in Medicare. The Comprehensive Primary Care Initiative, for example, seeks to increase collaboration between public and private health care payers to strengthen primary care.<sup>44</sup> The initiative includes many medical-home elements: risk-stratified care management; managing care for patients with high health care needs; access and continuity; preventive care; patient and caregiver engagement; and coordination of care.

Under this initiative, Medicare will pay the selected primary care practices a monthly care management fee for their fee-for-service Medicare beneficiaries and, in later years of the initiative, the practices will have the potential to share in any of Medicare’s savings. Practices will also receive compensation from other payers participating in the initiative, providing additional resources for quality improvement efforts.<sup>45</sup> The Innovation Center recently selected 500 practices to participate in the practice, including the Capital District Physicians’ Health Plan.<sup>46</sup> (see case study on page 23)

## Case study: Capital District Physicians' Health Plan

### Enhanced primary care initiative

Capital District Physicians' Health Plan, Inc., or CDPHP, is a nonprofit health plan that has embraced the patient-centered medical home approach as a way to attract more primary care physicians and improve medical care. Located in upstate New York, CDPHP is a physician-sponsored plan with almost 400,000 patient members.<sup>47</sup> Its board of directors is made up of practicing physicians who are elected by their colleagues.

Dr. Bruce Nash, CDPHP's senior vice president of medical affairs, cited the board's make-up as a key reason for its move toward the medical home model. Board discussions commonly include discussions of the direction of medical care, and in 2007 board members responded to the low rate of local medical school graduates entering primary care by considering how the plan could increase primary care payment to encourage more young doctors to enter those areas. The plan decided that this increased payment had to come from savings throughout the system instead of increasing the existing budget.

CDPHP then reached out to its primary care physicians to ask how they could change the structure of their practices to meet these goals, and both sides agreed to consider the patient-centered medical home model. Specialists in the plan also supported a new focus on primary care physicians because as the numbers of primary care doctors has declined, the time specialists have spent providing primary care services has increased.

In 2009 and 2010, three practices with approximately 14,000 patients participated in a pilot program to test the effectiveness of the patient-centered medical home. The plan recognized this approach to primary care required a significant commitment of time and effort, so it paid each physician in the pilot a stipend of \$35,000, and an opportunity to earn an additional \$50,000 for improvements in effectiveness and efficiency of care. During the pilot program the participating practices continued to receive fee-for-service payments.

Results from this initial effort were very promising: The rate of cost growth in the three primary care practices that received modified

payments was 67 percent of the growth of other practices in the region.<sup>48</sup> During the two-year period, the practices showed an improvement in 14 of 18 quality metrics, as well as a 15 percent reduction in hospital utilization, a 9 percent reduction in emergency department use, and a 7 percent reduction in the use of advanced imaging.<sup>49</sup>

After these initial results, CDPHP expanded the program, and today the program is in its fourth phase, with 143 participating practices. CDPHP also changed the program's payment structure. Instead of continuing with a fee-for-service model and paying additional per member per month amounts for medical home-related services, the program has moved to risk-adjusted global payments similar to those advocated in the Goroll article in the *Journal of General Internal Medicine*.<sup>50</sup> Dr. Nash explained that most payment models deployed in patient-centered medical home pilots still maintain fee-for-service as a base with all of the associated perverse incentives.

The base payment amount under the new method of payment is a risk-adjusted global payment which reimburses 20 percent higher than the previous fee schedule, meaning that practices are paid more to treat sicker patients because of the time and resources needed to effectively manage and coordinate their care. These different payment amounts "overcome doctors' aversion to such a system and also address the concern that capitated payments could encourage doctors to cherry-pick healthier patients," says Dr. Nash.<sup>51</sup> The program also offers additional bonus payments of up to 20 percent of the base payment amount if physicians meet quality standards.<sup>52</sup>

Between the base payment amount and the quality bonus, payments to physicians in the program may be up to 40 percent greater than under the fee-for-service model—and this number may be higher for practices with sicker patients. Before a practice becomes eligible for this enhanced payment model it must undergo a one-year "transformation" effort to become a patient-centered medical home. During this time, physicians receive a \$20,000 stipend to cover some of the costs of setting up the medical home, such as attending collaborative meetings, webinars, internal office meetings to address work-

## Case study: Capital District Physicians' Health Plan (continued)

flow improvements, and National Committee for Quality Assurance certification.

CDPHP has invested over \$10 million assisting practices with moving to the patient-centered medical home model of care, including the adoption of electronic health records.<sup>53</sup> Its nurse care managers, pharmacists, and behavioral health care specialists are also located in select practices.<sup>54</sup>

Results from a study of the revised medical home method of payment should be available in the middle of 2013. In the meantime, CDPHP continues to move forward with this program. By 2014 the organization hopes that 80 percent of its primary care physicians will adopt this model.

Dr. Nash echoed others who have also led efforts to move away from the fee-for-service system when he noted that “shift to a medical home requires . . . changing practice culture and mind-set.” Because Capital District Physicians' Health Plan is physician-led, Dr. Nash explained that it is able to use its physician leadership to help foster this change, which has allowed the health plan to build “a foundation of trust over time with [its] network.” For example, CHPHP board members participated in the pilot program, and as the program expanded, CHPHP continued to rely on its board members and other well-respected physicians to adopt the model and encourage other practices to follow their lead.

Medicare's Innovation Center has also partnered with the Department of Health and Human Services' Health Resources Services Administration to conduct the three-year Federally Qualified Health Center Advanced Primary Care Practice demonstration program to “test the effectiveness of doctors and other health professionals working in teams to coordinate and improve care for up to 195,000 Medicare patients.”<sup>55</sup> The Innovation Center will again provide a monthly care management fee to help participating clinics invest in patient care and infrastructure necessary to coordinate care and help patients manage chronic conditions. In return, clinics agree to adopt care coordination practices that are recognized by the National Committee for Quality Assurance, with the goal of reaching the organization's “Level 3” patient-centered medical home recognition.

Lastly, qualified health plans offering coverage through the new health care exchanges may also offer a “primary-care medical home plan” that meet criteria established by the secretary of Health and Human Services.<sup>56</sup>

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## Patient-centered medical home evidence

Within the broad standards for patient-centered medical homes, there are numerous variations in size, practice structures, and payment models. Evidence of the effectiveness of medical homes in containing costs and improving quality is still anecdotal and self-reported, especially data about cost savings.<sup>57</sup> Keeping these limits in mind, the evidence that does exist is encouraging, suggesting that patient-centered medical homes can reduce medical errors, improve patient satisfaction, and control costs by reducing emergency room visits and hospitalizations. (see case study on CareFirst BlueCross BlueShield and Appendix B on page 44)

### Case study: CareFirst BlueCross BlueShield<sup>58</sup>

#### Patient-centered medical home

Starting in 2011, nearly 3,600 primary care physicians, accounting for 85 percent of all eligible doctors in CareFirst physician networks, now participate in CareFirst BlueCross BlueShield's patient-centered medical home program.<sup>59</sup> CareFirst executives attribute the early success of this program to their chief executive officer, Chet Burrell. His goal was to more effectively coordinate the care of patients who fall just below the "sickest of the sick," or those very sick patients who do not need trauma level or other intensive care, in order to improve care quality and slow cost growth throughout the system.

Within the CareFirst network, 10 percent of the members account for 50 percent to 60 percent of costs: by coordinating care for those patients, CareFirst hopes to provide better care for those patients while slowing the growth of health care costs.

CareFirst offers three types of supports to physician practices participating in the medical home program. First, the program includes financial incentives. Second, it offers human support such as registered nurse care coordinators working in the community with medical home providers. Third, it contributes information support such as Internet-based tools and information to better track patient care and opportunities for improvement.

The program offers several financial incentives. All participating physicians receive a 12 percentage point fee increase. CareFirst settled on this amount after considering the value of the medical home services these physicians would provide as well as to show a "seriousness of purpose" with regard to the medical home model. Primary care providers also earn new, additional fees for developing and monitoring care plans for patients who need them.

Finally, participating medical homes may qualify for "outcome incentive awards" based on a set of measures that consider both quality and cost savings compared with projected costs. These outcome incentive awards are substantial and can reach as high as 60 additional percentage points added to existing fee schedules.

The program considers quality performance in a number of ways.<sup>60</sup> It uses quality measures to track the appropriateness of health care services and the effectiveness of care. Medical homes could also earn quality points related to patient access, such as electronic scheduling and extended office hours, and structural capabilities, such as electronic prescribing and keeping electronic health records.

## Case study: CareFirst BlueCross BlueShield (continued)

Another key to the success of the program is the human and technological assistance that CareFirst gives physicians. CareFirst shares cost and quality information with primary care physicians so they can refer patients to high-value specialists. And each physician practice can work with a “care coordination team” led by a nurse care coordinator that includes pharmacists, nutritionists, therapists, and mental health professionals to help coordinate care for the sickest patients.

CareFirst believes that these kinds of supports—especially the financial support—are critical to achieving success with this medical home model. Before it rolled out its current medical home model, CareFirst had a three-year pilot program that was focused on achieving National Committee for Quality Assurance accreditation, but without the support it now offers. CareFirst found that this goal alone was not enough to achieve a real change in how physicians deliver primary care. In addition, CareFirst noted the importance of having local care coordinators who are available to practices in person and by phone.

In June 2012, CareFirst announced the results of the first year of the program. Nearly 60 percent of eligible medical home participants received increased reimbursement based on their 2011 performance in the program.<sup>61</sup> CareFirst bases these outcome incentive awards, which on average increase reimbursement by an additional 20 percentage points for the next 12 months for eligible providers, on

a combination of savings compared with projected costs as well as meeting quality requirements.

The average savings for medical homes earning outcome incentive awards was 4.2 percent, while program participants that did not earn additional payments averaged costs of 2 percent higher than expected. The quality scores across the two groups were comparable. The total cost of care for patients treated by the program’s participants was 1.5 percent below projected 2011 spending.

CareFirst believes that it will have an even better idea of whether the program successfully controls the growth of health care costs after it collects three to five years of data. CareFirst hopes that these encouraging results are just the start: It took part of 2011 to place all of the care coordinators, who are a key piece of the program, and CareFirst is slowly building relationships with physicians around the program. Now that these pieces are settling into place and participation in the program continues to grow, CareFirst is optimistic that next year’s results will continue to show promise. The organization is also continuing to change the program to address concerns, such as its plans to modify the quality measures to better track quality in pediatric practices.

Data suggest that this model can improve patients’ health. And even with the additional financial investments needed to pursue this model, many of these medical home programs succeed in lower health care spending.

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## Challenges and lessons learned

Successful implementation of a patient-centered medical home depends on physician commitment as well as the quality of both the human and information supports available to individual practices: case managers, health coaches, data and information technology managers, as well as electronic health records, and patient education materials and equipment.<sup>62</sup> One study by Arnold Milstein of Stanford Medical School and the Pacific Business Group on Health, a coalition of 50 private health care purchasers, and services industry labor union leader Elizabeth Gilbertson identifies “medical home runs” as patient-centered medical homes that successfully reduce costs and improve care.<sup>63</sup> Milstein and Gilbertson concluded that the programs shared the following elements:

- Exceptional individualized caring for chronic illnesses, including longer in-office visits, medication management, round-the-clock responses to requests for urgent care, coordination with selected specialists, building relationships with caregivers, and transportation services
- Providing efficient services, including standardization of care processes and ceding more responsibility to nonphysician providers and use of health information technology
- Carefully selecting specialists to concentrate referrals on well-performing, value-driven specialists<sup>64</sup>

The authors also note the common personal characteristics of physicians leading successful medical homes: persistence, tolerance for risk, an instinct for leveraging clinical and financial outcomes, and a strong sense of personal responsibility.<sup>65</sup>

Payment reform is also critical to obtaining physician commitment. Medical homes have the potential to reduce total systemwide health spending by preventing costly emergency room and hospital use, but they have significantly higher costs, especially start-up costs. Without modifying the current fee-for-service payment structure, many physicians simply cannot afford to make the commitment to restructuring their practices or investing in additional staff and health information technology.<sup>66</sup>

Even after a medical home is up and running, the additional costs to individual practices remain high. A recent study that reviewed the costs of the patient-centered medical home from the perspective of individual health center providers acting as medical homes concludes that higher medical home ratings are associated with higher operating costs at the individual provider level.<sup>67</sup> Care managers, quality data

Medical homes  
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emergency room  
and hospital use.

analysis, and continual contact with patients require ongoing financial investments.

These investments result in better patient outcomes and lower system-wide spending, but individual physicians are not likely to benefit from those savings. Payment reform is therefore critical to align physician incentives with those of the rest of the health system. A recent study by the Journal of the American Medical Association notes, the “cost [of patient-centered medical homes] is relatively small compared with the potential cost savings from averted hospitalizations and emergency department,” but without a change in the payment structure, there is no mechanism in place for physicians “to benefit from such downstream savings.”<sup>68</sup>

As detailed in the case study on page 25, CareFirst executives found that increased primary care physician payments are a “significant . . . motivator” for physicians, and that higher payments show a “seriousness of purpose” that the plan is committed to the medical home model.<sup>69</sup> Incentive payments or shared savings can also further align financial incentives throughout the system.

But payment reform alone may not be sufficient. Even with enhanced payments, solo physician practitioners and small physician group practices will likely need outside support either from health plans or practice associations to assist in a variety of medical home activities, such as care coordination and data analysis.<sup>70</sup> As our case study on page 25 details, medical practices participating in the CareFirst medical home program work with CareFirst care coordinators. These care coordinators have been instrumental in helping busy practices better manage each patient’s care. Capital District Physicians’ Health Plan also offers similar supports. And just as organizations using bundled payments emphasized the need for strong provider leadership, medical home programs also benefit from leaders who are committed to changing the delivery of primary care and are willing to invest in significant financial, human, and information technology supports.<sup>71</sup>

With the potential to transform both how health care is delivered and paid for, the accountable care organization is another promising model that is being widely

# Accountable care organizations

implemented by public- and private-sector health care providers and payers. Accountable care organizations, or ACOs, encourage health care providers to work together to deliver higher quality, more coordinated care at lower costs.

Through use of a shared savings payment model, payment for providers are tied in part to achieving better health outcomes. Like the patient-centered medical home, this payment model relies on greater coordination among providers and focuses on preventive care as one way to lower costs and improve quality. As one study notes, “primary care practices belonging to an ACO will need to adopt at least some aspects of the medical home model to manage the care of their ACO’s patient[s] . . . effectively enough to generate shared savings.”<sup>72</sup>

Although the accountable care organization model pre-dates the Affordable Care Act, interest in the model in the public sector and private sector substantially increased following the law’s establishment of the Medicare Shared Savings Program as a new option for providers caring for Medicare fee-for-service beneficiaries. The Innovation Center also used its authority to create the Pioneer ACO Program and the Advance Payment Model for accountable care organizations participating in the Shared Savings Program.

A June 2012 report by Leavitt Partners, a health care intelligence organization, that examined the growth of both private- and public-sector accountable care organizations in the United States notes that two primary factors have motivated many organizations to develop accountable care organizations—the belief that accountable care is “the right” approach for patients, and acknowledgement of and preparation for the declining dominance of fee-for-service payments. The same report identified 221 accountable care organizations in 45 states, noting the difficulty of identifying organizations that may be using an accountable care model but do not self-identify as such.<sup>73</sup> Another estimate by the Brookings Institution identified more than 250 self-identified accountable care organizations across the United States.

There does not seem to be a dominant organizational model, despite the

recent proliferation of accountable care organizations. But an August 2012 issue brief by the Commonwealth Fund showed that as of September 2011, physician participation in accountable care organizations was much more common than hospital participation.<sup>74</sup>

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### Public payer support for accountable care organizations

The Medicare Shared Savings Program established by the Affordable Care Act seeks to improve care for Medicare beneficiaries resulting in improved health and lower health care costs. Hospitals, physicians, and other health care providers that form accountable care organizations may participate in the program, and those organizations may receive a portion of savings they achieve as long as they meet various quality standards.

Under the Shared Savings Program, these organizations are responsible for the health needs and costs of at least 5,000 Medicare beneficiaries for a minimum of three years. Health care providers still receive regular Medicare fee-for-service payments for treating these patients, but the accountable care organization's overall costs are compared to a benchmark based on past payments. If the organization achieves savings compared to the benchmark and achieves quality standards then the health care providers in the organization share in the savings. Providers are required to notify patients about their participation in an accountable care organization, and patients may opt to see another doctor.

In the Medicare Shared Savings Program, participating organizations opt for one of two risk tracks. Providers opting for the so-called one-sided risk model are eligible to share a proportion of savings only, with the Centers for Medicare & Medicaid Services assuming risk for the first two years of increased spending. By year three, providers must share in both savings and losses. In the "two-sided risk model," providers and the Centers for Medicare & Medicaid Services share in savings and losses from year one, with providers eligible for a greater proportion of savings than those in a one-sided risk model.

All participating Medicare Shared Savings Program providers are accountable for 33 quality metrics, largely focused on prevention and management of chronic disease. Examples of quality metrics include reduced hospital admissions and emergency room visits. Accountable care organizations that do not meet quality targets are ineligible for shared savings and risk losing their contracts. Quality

There are more than 250 self-identified accountable care organizations across the United States.

measures are categorized across four domains:

- The patient or caregiver’s experience of care
- Care coordination/patient safety
- Preventive health
- At-risk population health

The first two groups of accountable care organizations to participate in the Medicare Shared Savings Program launched in April and July 2012, respectively. As of July 2012, there were 116 total participating organizations in the program caring for more than 2.4 million Medicare beneficiaries nationally. Participating organizations operate in a wide range of areas, and many are physician-driven organizations with fewer than 10,000 beneficiaries. The Centers for Medicare & Medicaid Services estimates that total federal savings from the program could reach \$940 million over four years, from 2012 to 2015.<sup>75</sup> The nonpartisan Congressional Budget Office projects that using a shared savings model for accountable care organizations would save Medicare \$4.9 billion over the 10-year period ending in 2019.<sup>76</sup>

The Affordable Care Act supports the development of these organizations in other ways, too. The health care reform law allocates funding to the federal Center for Medicare and Medicaid Innovation to test payment and delivery reform models, such as the Pioneer ACO Program and the Advance Payment initiative. The law also emphasizes the importance of preventive care and makes many critical preventive health services free for patients.

Additionally, the American Recovery and Reinvestment Act of 2009 contained subsidies to encourage the “meaningful use” of health information technology by providers, including moving to an electronic health records system.

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## Core organizational characteristics of accountable care organizations

Although the Affordable Care Act established organizational and governance requirements for accountable care organizations participating in the Shared Savings Program,<sup>77</sup> various other organizational models exist (see Appendix C on page 47). In general, accountable care organizations have several key structural components:

- Shared provider accountability for a defined set of patient health outcomes and costs
- A patient attribution model
- A reformed delivery system that promotes integrated, patient-centered care
- A reformed payment system that promotes value over volume of care
- Performance and quality measurement systems
- Reporting on performance and quality

## Shared provider accountability for a defined set of patient health outcomes and costs

Health care providers—which can include primary care and specialty physicians, hospitals, mental health professionals, care coordinators, and other health care providers—share responsibility for the quality, cost, and health outcomes of a defined population of patients.

In contrast to the managed care organizations that sought to more effectively coordinate care and control health care costs in the 1990s, provider incentives in accountable care organizations are tied not only to costs but also to patient health outcomes and care quality. This incentive structure encourages providers to ensure that in addition to providing a patient with all necessary care, they also provide preventive services, such as important health screenings, and work closely with other providers in the organization to eliminate or reduce events that are detrimental to patient health and raise costs, such as preventable hospital readmissions.

## Patient attribution models

Accountable care organizations currently use a variety of patient attribution models to determine which patients are included in them. Generally, patients are attributed to an accountable care organization based on their primary care provider. Thus, a patient is notified if their primary care provider joins an accountable care organization and retains the right to seek care from providers outside of it.<sup>78</sup> This option not only preserves patient choice but also ensures that health care providers are not gatekeepers of care. Instead, it allows for care coordination and primary care physicians to be actively engaged in the entire continuum of a patient's care.

Some organizations have separate health plans, which allow patients to self-designate membership in an accountable care organization. To encourage patients to select one as their principal source of care, plans often offer incentives (such as enhanced benefits or lower cost-sharing) to the patient.

To be successful, accountable care organizations must ensure they are responsible for the care of a critical mass of patients.

### A reformed delivery system that promotes integrated, patient-centered care

Accountable care organizations must be able to provide or manage the continuum of care for their patients to coordinate care effectively. Our discussions with these organizations show that the successful ones incorporate strong primary care providers who can lead patient care coordination efforts, and build on the patient-centered medical home model.<sup>79</sup>

An accountable care organization can support an integrated continuum of care by building on an existing medical home model. But accountable care organizations can also incentivize coordination beyond the primary care practice, bringing additional health care providers, including hospitals and specialists, in a defined region together to focus on providing quality care to a set group of patients.

### A reformed payment model that promotes value over volume of care

In a fee-for-service payment system, providers are rewarded for the volume and intensity of services provided and are not rewarded for efforts to improve care quality, such as through spending time on care coordination or ensuring patients receive essential preventive services. The alternative payment models being used in accountable care organizations, representing collaboration between payers and providers, seek to realign these payment incentives and support health care providers aiming to improve the care of their patients at lower costs.

Many health care providers in accountable care organizations still receive some fee-for-payments, while others incorporate bundled episode payments or use other forms of capitated payments. A key objective of accountable care organizations should be, as one Medicare payment policy expert wrote, to “fundamentally change the business case for providers such that an unnecessary hospital admis-

sion, test, or invasive procedure is considered an avoidable expense rather than profitable revenue.”<sup>80</sup> This reformed payment model does so in three ways.

### *Savings benchmarks*

To establish a benchmark against which savings are measured, accountable care organizations can use past insurance claims data to establish a cost baseline and prospectively set spending targets. These targets can be adjusted for local market trends, and can be risk-adjusted based on the specific patient population.

In the Shared Savings Program, any savings below this target is shared among providers and payers per the terms of the accountable care organization agreement. All payments are contingent upon achievement of quality benchmarks, to ensure that necessary and appropriate care is not withheld to meet the cost targets.

### *Shared savings*

Although a wide variety of payment models are currently being tested by different accountable care organizations, these reforms typically include contractual shared savings, in which health care providers and payers share savings that result from spending below the benchmark. Accountable care organizations may choose to re-invest shared savings to improve patient care or distribute savings among the participants in the organization, including primary care physicians, specialists, hospitals and patients.

### *Shared risk*

Health care providers and payers may also choose to implement payment models that distribute risk as well as potential shared savings. In a two-sided risk model, providers and payers share savings from spending below targets, but also absorb losses from excess spending in agreed upon proportions. As providers may be hesitant to initially assume risk while implementing major payment and delivery system reforms, many accountable care organizations, including the Shared Savings Program, have a one-sided risk model, in which the payer assumes all downside risk but still shares potential savings with providers. Because payers assume all risk in this model, they also retain a larger share of any savings. This model is often key to engaging organizations with no prior accountable care experience, allowing them to ramp up to a more balanced, two-sided risk scheme within the first few years.

## Performance and quality measurement systems

Accountability requires accountable care organizations to have the capacity to capture and report measures of quality and performance. In addition to examining costs, these metrics must include measurers of quality of care, health outcomes, and patient care experiences to ensure that savings are not a result of limiting necessary care. Performance and quality metrics should ensure these new organizations are accountable to patients, payers, and member providers.

While developing, implementing, and reporting these measures can be financially and operationally challenging for organizations, use of these metrics can lead to significant performance improvements and allow providers to be truly accountable for their patients. For instance, having all participating health care providers agree to a single set of best practices in care delivery helps to ensure that all patients receive high-quality care, and decreases providers' overutilization of services.

To encourage providers that are already high performing to participate, performance incentives should be based on achieving high standards of performance, as opposed to simply improving on past performance.

## Reporting on performance and quality

Providing physicians and other health care providers with regular performance and quality reports is essential in allowing providers to assess their performance and make any needed adjustments. This could include monthly reports on utilization and expenditures, as well as a performance report comparing results to other providers. Regular data collection and reporting over time will also contribute to the collective knowledge base on strategies for most effectively coordinating patient care.

The list above of characteristics of accountable care organizations is not exhaustive, but begins to illustrate the wide range of organizational models and the potential for improved care at lower costs. Appendix C lists key components and outcomes for a number of existing accountable care organizations.

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## Key features for successful implementation of accountable care organizations

As the three case studies in this section illustrate, many accountable care organizations are still in the early stages of implementation, and a few have publicly available results demonstrating their effect on quality and cost. There also is evidence of their effectiveness in recent research done on accountable care organizations. A review of the academic literature and discussions with several accountable care organizations located in different geographic regions and with different organizational models offer several key lessons learned and tips for success. These features include:

- A critical mass of patients
- Strong physician leadership and engagement
- Health information technology
- Technical support

### A critical mass of patients

The number of patients enrolled in an accountable care organization must be large enough to allow for performance measurement and expenditure projections. For instance, the Centers for Medicare & Medicaid Services requires accountable care organizations in the Medicare Shared Savings Program to have a minimum of

## Case study: Beth Israel Deaconess Physician Organization<sup>89</sup>

### Eastern Massachusetts

Beth Israel Deaconess Physician Organization, a physician-operated, integrated independent practice association in eastern Massachusetts first began using accountable care incentive contracts in 2005, and launched a second round of risk contracts in 2010. The organization's network includes 1,700 physicians and contracts with all major commercial payers in the eastern Massachusetts region. Although their network does not currently include a hospital system, they are planning on including hospitals in their 2013 risk arrangements.

Beth Israel Deaconess Physician Organization, or BIDPO, has care management programs that address the full continuum of care.

In addition to its providers, the organization's staff includes case managers, clinical pharmacists, community resource specialists, and nurse practitioner resources. The organization assumes risk for the full spectrum of care.

The Innovation Center selected BIDPO as one of 32 Pioneer ACOs, in part due to its experience with the Massachusetts Alternative Quality Contract initiative, a provider-payment initiative launched by BlueCross BlueShield in 2009 to improve patient health outcomes and contain rising costs. Notably, BIDPO was instrumental in helping to design the second version of the state's Alternative Quality Contract.

## Case study: Beth Israel Deaconess Physician Organization (continued)

BIDPO worked with BlueCross BlueShield to develop a model that married cost and quality metrics, which were previously separate. The original accountable care contract, for example, allowed health care providers to receive bonus payments on quality even if they weren't operating as efficiently from a cost perspective.

### Measuring quality and cost

BIDPO's robust data warehouse, which includes a mix of clinical and administrative information extracted from claims, data from the Centers for Medicare & Medicaid Services, and electronic health records, allows the organization to quickly identify potentially high-risk patients, analyze key cost drivers, and examine quality measures. Providers' performance across the 33 quality metrics of the Centers for Medicare & Medicaid Services and the 22 quality metrics of BlueCross BlueShield determines shared savings and losses for those contracts.

Savings between health care providers and insurance payers are currently shared relatively evenly but providers have opportunities to receive a larger proportion of savings (up to 100 percent) if quality scores are high. A key feature of the organization's payment model includes slanting shared savings heavily toward primary care providers. This is especially significant given the large number of specialists in the network. Within the Alternative Quality Contract model, high quality scores also mean that if there is a deficit, BlueCross BlueShield will absorb a greater share of the loss.

This system allowed BIDPO to identify several cost drivers. Specifically:

- Preventable readmissions
- Overutilization of routine services in emergency room settings
- Care management of chronically ill patients
- End-of-life care

- Outpatient prescription drug spending
- Laboratory and radiology utilization

### Challenges

Executives at BIDPO note that securing physicians' buy-in was difficult at first. To address resistance to this new payment method, the executives worked with its board and used external consultants to help doctors understand the national, systemic shift away from fee-for-service payments and the need to get ahead of that curve.

Building the infrastructure necessary to launch and manage the accountable care organization was a challenge. Although the health plans in the organization's network made some financial contributions toward the large amount of infrastructure needed, the Centers for Medicare & Medicaid Services does not offer front-end contributions. BIDPO organizational leaders note that a hospital partner, who has more capacity than physicians to invest in costly infrastructure, could be helpful.

### A key lesson for other accountable care organizations

BIDPO President Dr. Stuart Rosenberg offered insight for organizations considering or currently pursuing an accountable care organization set up: Organizations can't think about this in terms of return on investment. Instead, they must consider this more as an investment in a new way of doing business. Offering high quality, accountable care has allowed BIDPO to create value in a very competitive market.

5,000 patients.<sup>81</sup> The Medicare Payment Advisory Commission also suggests that a minimum of 5,000 patients is required to accurately and consistently distinguish measured improvement from random variation.<sup>82</sup>

Additionally, materials from the Brookings-Dartmouth ACO Pilot Program, a learning and support network for accountable care organization pilot programs, state that these organizations have higher chances of success if the majority of patients cared for by health care providers are part of the accountable care organization.<sup>83</sup>

## Case study: ATRIUS Health<sup>90</sup>

### Eastern and Central Massachusetts

Atrius Health, a nonprofit organization that includes six medical groups and serves more than a million patients throughout eastern and central Massachusetts, also gained experience with accountable care through participation in the BlueCross BlueShield Alternative Quality Contract. At the end of the third year of that contract, Atrius Health significantly improved their performance scores and flattened the cost growth curve for medical expenditures. Armed with this experience, the Center for Medicare and Medicaid Innovation selected the organization to be one of 32 Pioneer ACOs. Participation in this program will give all of Atrius Health's medical groups the opportunity to participate in a systemwide accountable care initiative.

Several key features of Atrius Health's Pioneer ACO model are worth highlighting. Among them, the organization:

- Created work teams in specific areas across all six of its physician groups. Its hospital care team, for example, worked on developing relationships with preferred hospitals that admit most of Atrius Health's patients. The team also created a hospital scorecard.
- Created monthly "ACO Days," in which all work groups gather to provide updates to further collaboration. ACO Days also include a learning component, in which groups take turns presenting best practices for specified learning modules.
- Used the population manager role, developed as part of the Alternative Quality Contract, to help physicians with patient outreach tasks, allowing doctors to spend more time with their patients.
- Hired more high-risk care managers, who work with electronic health records and claims data to identify high-risk patients and assess their risk of hospitalization within 30 days to 90 days. This patient list is given to nurses, who can better follow up with these patients.

## Case study: Iowa Health System<sup>91</sup>

### Iowa and Illinois

The Iowa Health System is an integrated network that includes 27 hospitals and more than 200 physician organizations. With a strong population health management focus, Iowa Health System participates in several accountable care programs, including the Medicare Shared Savings Program, the Pioneer ACO initiative, and an accountable care organization with Wellmark BlueCross BlueShield of Iowa.

Iowa Health System's Integrated Care Organization is part of its accountable care structure, bringing together physicians who not only participate in accountable care organizations but also help develop various accountable care policies. The Integrated Care Organization includes members from every region in Iowa Health System's market area of Iowa and Illinois, and many decisions are made on a regional level. Doctors in different regions, for example, may decide on different quality metrics and develop different care and coordination activities to fit the specific markets in which they are located.

Although there is no cost or quality data yet on these accountable care activities, the organization's approach to developing physician leaders and involving those individuals in the health system's reform efforts is notable.

#### Cultivating physician leaders

Iowa Health System created the Physician Leadership Academy to address what they describe as one of the most challenging aspects of their reform effort—encouraging doctors to move from a volume-based to a value-based payment system. Each year, the health system selects 40 doctors for the program that encourages leadership skills and examines the move away from fee-for-service payments, with the goal of building informed advocates within the health system. The health system selects a mix of younger and more experienced physicians to participate in the program, as well as a mix of Iowa Health System-employed and independent physicians. Each selected physician is already considered a leader by his or her peers. Participating doctors attend several in-person sessions, but do much of the learning online.

Academy curriculum includes health finance, quality, strategy and systems development, and management components, and is taught by a variety of industry leaders. The program is done in conjunction with the American College of Physician Executives and provides participants with continuing medical education credit. At the end of the program, the health system celebrates graduates with a ceremony and dinner. The system also ensures that academy alumni stay engaged, continually building the pipeline of informed physician advocates. The health system reports that the academy has been essential in communicating the importance of accountable care and changing the culture of care delivery.

#### Providing support to participating physicians

While Iowa Health System emphasizes the importance of physician-driven change at the level of its Integrated Care Organization, the system also provides important support to participating practices. The health system offers electronic health record management tools to all participants. And although they do not finance electronic health record implementation for physicians they contract with, the system does encourage providers to view electronic health records as an opportunity to further improve how they understand and deliver care to their patients, which can allow them to “win” in a value-based system.

Additionally, Iowa Health System provides after-hours call center support for all health care providers in the Integrated Care Organization. This includes use of case managers, who can assist with scheduling patients, or immediately triage patients in need of emergency care. The health system views these supports as part of the organized system of care that physician members join.

## Strong physician leadership and engagement

As with implementation of other payment reforms mentioned in this report, strong, committed physician leaders are a key part of the successful launch and development of an accountable care organization.<sup>84</sup> Because reimbursement and care delivery in an accountable care organization is a major shift in how health care providers have long delivered care and is accompanied by some risk-bearing, strong physician leaders are critical to attract other physicians needed to attain a critical mass of providers and to then lead other providers through the inevitable challenges accompanying reform.

Equally importantly, physician leaders encourage an organizational culture of commitment to accountable care. Physician leaders are also central to engaging other health care providers in the process of developing and implementing performance and quality measures. To identify quality and performance measures, organizations typically start with an existing set of evidence-based standards, such as those from the National Quality Forum.

Numerous accountable care organizations have adopted the 33 quality measures developed and vetted by the Centers for Medicare & Medicaid Services and stakeholders in the Medicare Shared Savings Program. Yet some organizations often adapt existing metrics to ensure that measures account for the specific needs of their covered group of patients and drive desired program goals. Provider leadership and engagement is crucial in shaping this process.

## Health information technology

An interoperable health information technology platform that connects health care providers and allows them to actively manage patients is essential to the effectiveness of any accountable care organization.<sup>85</sup> Thus, organizations without existing health IT platforms must be able to invest in the necessary IT infrastructure, including the capacity for clinical care coordination and process improvement reports as well as financial management. An assessment of the state of Vermont's accountable care organization pilot program notes that while electronic health records are helpful they do not sufficiently allow for the care coordination and population management needs of an effective accountable care organization unless other health IT tools are in use.<sup>86</sup>

## Technical support

A study of eight private accountable care organizations noted that adequate technical assistance can be key to an organization's success. For instance, health care provider groups may require support in accessing and creating claims data and reports that identify at-risk patients and compare the organization's performance to benchmarks, as well as help in setting up an electronic health records system that facilitates health information sharing, or in managing financial risk.<sup>87</sup>

Technical support may also include training health care providers and administrators on the use of new health information technology tools used to coordinate care, track patient health measures, and report on performance metrics. While participants with more advanced technical capacities may not require these types of support, they may still need help understanding and interpreting data to identify opportunities for improvement. A report by the Commonwealth Fund also notes that in addition to financial incentives, technical support can help ensure the success of accountable care organizations.<sup>88</sup>

# Conclusion

The move away from fee-for-service payments is gaining momentum as insurance payers, health care providers, and consumers recognize that the system simply doesn't work—either from a cost or quality perspective. The reforms discussed in this paper vary in a number of ways, but each of them addresses the key issues that need to be fixed in our health system: the lack of coordination between different health care professionals, the current incentives to provide too many costly and unnecessary services, and too little focus on primary care. By changing these incentives, patients will not only receive higher quality care but also care that will cost less, as premiums, deductibles, and cost-sharing decrease.

To achieve these outcomes, each of these reforms requires significant investments in new personnel and technology as well as committed leadership. But as the move away from fee-for-service continues, these investments are necessary to creating a high-value health system that rewards quality over quantity.

## Appendix A

### Select bundled episode payments, quality and cost results<sup>1</sup>

	Eligible episodes and definition	Payment model	Quality and cost outcomes
<p><b>Medicare Acute Care Episode (ACE) Demonstration</b> 2009–2012</p> <p>CMS's demonstration using episode-based payments for inpatient stays for Medicare fee-for-service beneficiaries. There are five pilot sites. Two of the sites are piloting both cardiovascular and orthopedic procedures.</p> <p><i>*For information on one of the pilot sites, see the Baptist Health System case study on page 9.</i></p>	<p><b>Eligible episodes:</b> There are bundles for 28 cardiovascular and 9 orthopedic procedures (including joint replacement surgeries).</p> <p><b>Episode definition:</b> - Medicare part A (hospital) and B (physician) services. - Bundles cover admission through discharge.</p> <p><b>Eligible patients:</b> Medicare beneficiaries enrolled in traditional fee-for-service Medicare.</p>	<p>Sites determine if they reward individuals or teams of clinicians, or other hospital staff. Physicians can receive as much as a 25 percent bonus per episode if quality and efficiency goals are met.</p> <p>CMS shares up to 50 percent of savings with beneficiaries up to \$1,199 (the part B premium amount). Exact amount of savings varies by location and procedure.</p>	<p>In the first 18 months of the demo, one hospital saved \$4 million in device and supply savings, passing on more than \$550,000 to participating physicians and \$600,000 to patients (about \$300 per patient).<sup>2</sup></p> <p>Another hospital saved 40 percent in total orthopedic fees, paying more than \$200,000 to doctors through gain-sharing.<sup>3</sup></p> <p>Early results also indicate improvements in quality.</p>
<p><b>Medicare CABG Demonstration</b> 1991–1996</p> <p>The five-year Medicare Participating Heart Bypass Center Demonstration included seven hospitals that received a single, negotiated bundled price for inpatient and physician services for coronary-artery bypass graft, or CABG, patients.</p>	<p><b>Eligible episode:</b> CABG surgery</p> <p><b>Episode definition:</b> Each hospital received a bundled payment for hospital and physician services during the inpatient stay, plus any readmissions within 72 hours of discharge.</p> <p><b>Eligible patients:</b> Medicare beneficiaries</p>	<p>Hospitals determined how they would share the payment amount with physicians. All hospitals agreed to forgo outlier payments, thereby bearing all risk for costly cases.</p> <p>Patients paid a single, fixed amount instead of ordinary deductible and co-insurance amounts. The fixed share was set to be less than expected for a typical Medicare admission.</p> <p>The payment amount was updated annually.</p>	<p><b>Cost:</b> CMS saved \$42.3 million (10 percent of expected spending) over five years. Most of these savings came from negotiated rates for provider services. Three hospitals also had average cost reductions of 2 percent to 23 percent.<sup>4</sup></p> <p>Beneficiaries saved \$7.9 million in coinsurance payments.</p> <p><b>Quality:</b> All seven hospitals exhibited declines in lengths of stay (half a day–one day/year) for the episode. Reduced mortality rates led to a decline in potentially avoidable complications and reoperations<sup>5</sup></p>

	Eligible episodes and definition	Payment model	Quality and cost outcomes
<p><b>Medicare Cataract Surgery Alternate Payment Demonstration</b> 1993–1996</p> <p>In response to rapid increases in the annual rate of cataract procedures, CMS, then the Health Care Financing Administration, designed the episode-based pilot to use a negotiated bundled payment for all services routinely provided as part of outpatient cataract surgery.</p> <p>Participants were allowed to designate themselves as “Medicare Designated Cataract Surgery Providers” to signal high efficiency and rigorous quality review.</p>	<p><b>Eligible episodes:</b> Outpatient cataract surgery</p> <p><b>Episode definition:</b> All services routinely provided within an episode of outpatient cataract surgery, including physician and facility fees, intraocular lens costs, and costs of select pre- and post-operative tests and visits for 120 days.</p> <p><b>Eligible patients:</b> Medicare beneficiaries</p>	<p>The price of the bundled payment was less than an aggregate amount of payments and was provider-specific.</p> <p>Participating providers were allowed to waive beneficiary deductibles and coinsurance at their own cost.</p> <p>Each participant designed their own quality assurance and utilization review processes.</p>	<p>Reduced Medicare spending by \$500,000 for 7,000 procedures.</p>
<p><b>Geisinger Health System’s ProvenCare</b> 2006–present</p> <p>Geisinger, or GHS, a private health system in Pennsylvania, first piloted global episode payments for elective cardiac bypass surgery. They later expanded the program to include a total of eight episodes based on best practices. This fee includes 50 percent share of historical readmission rate. Geisinger is an integrated delivery network.</p>	<p><b>Eligible episodes:</b> CABG, hip replacement, cataract surgery, angioplasty, perinatal care, bariatric surgery, low back pain, and erythropoietin management.</p> <p><b>Episode definition:</b> For each eligible episode, ProvenCare requires its physicians to follow 40 essential best practice steps. For example, for CABGs, bundles include all non-emergency procedures including preoperative evaluation, and all hospital and professional fees. Geisinger also offers a surgical “warranty,” covering the entire cost of any follow-up care needed by patients experiencing an avoidable complication within 90 days of the procedure.</p> <p><b>Eligible patients:</b> Geisinger health plan patients.</p>	<p>ProvenCare uses a pay-for-performance model and charges a fixed price for the eligible procedure, which includes a percentage of the historical costs of complications.</p>	<p><b>Cost:</b> Hospitals reduced costs 5 percent.<sup>6</sup></p> <p><b>Quality:</b> Requires adherence to evidence-based clinical measures (40 best practice steps). CABG guidelines were developed based on American Heart Association and American College of Cardiology guidelines.</p> <p>For CABGs, the average total length of stay fell half a day and the 30-day readmission rate fell 44 percent over 18 months. Also, 59 percent of patients received all 40 best practices; six months later, 100 percent of patients received all best practices.<sup>7</sup></p> <p>ProvenCare is also estimated to have reduced all complications by 21 percent.<sup>8</sup></p>

1 Information on an additional model implemented by United Healthcare can be found on page 15.

2 Rebecca Vesely, “An ACE in the deck? Bundled-payment demo shows returns,” *Modern Healthcare*, Feb 7, 2011, available at: <http://www.modernhealthcare.com/article/20110207/MAGAZINE/110209990>

3 Ibid.

4 John Bertko and Rachel Ettros, “Increase the Use of Bundled Payment Approaches,” *RAND Health COMPARE*. Available at [http://www.rand.org/pubs/technical\\_reports/TR562z20.html](http://www.rand.org/pubs/technical_reports/TR562z20.html)

5 Jerry Cromwell and others, “Medicare Participating Heart Bypass Center Demonstration (Waltham, MA: Health Economics Research, Inc., 1998), available at [http://www.cms.gov/DemoProjectsEvalRpts/downloads/Medicare\\_Heart\\_Bypass\\_Executive\\_Summary.pdf](http://www.cms.gov/DemoProjectsEvalRpts/downloads/Medicare_Heart_Bypass_Executive_Summary.pdf)

6 Geisinger Health System, “ProvenCare by the Numbers,” available at <http://www.geisinger.org/provencare/numbers.html>.

7 Ibid.

8 Ibid.

## Appendix B

### Select patient-centered medical home, or PCMH, quality and cost results

Medical home <sup>1</sup>	Details	Payment method	Outcomes
<b>Blue Cross Blue Shield of Michigan PCMH Program<sup>2</sup></b>	3,017 physicians in close to 1,000 medical practices throughout Michigan responsible for almost 2 million patients. Patients in designated PCMH practices have 24-hour access to the care team.	PCMH-designated physicians receive an additional care management fee for office visits. Physicians also are reimbursed for care coordination activities. Physician organizations are eligible for incentive pool payments based on practice transformation activities and performance outcomes, including quality.	Compared to non-PCMH practices, participating practices had: <ul style="list-style-type: none"> <li>• 23.8 percent lower rates of adult ambulatory care sensitive inpatient admissions</li> <li>• 11.3 percent lower rates of adult primary care sensitive emergency room visits</li> <li>• 8.3 percent lower rate of adult high-tech radiology use</li> <li>• 7.3 percent lower rate of adult low-tech radiology use</li> <li>• 9.3 percent lower rate of adult ER visits</li> <li>• 3 percent higher rate of dispensing generic drugs</li> </ul>
<b>BlueCross BlueShield of South Carolina—Palmetto Primary Care Physicians<sup>3</sup></b>	BlueCross BlueShield of South Carolina and BlueChoice Health Plan partnership with Palmetto Primary Care Physicians to develop a PCMH for approximately 800 diabetic patients.	Blended payment model consisting of a fee-for-service payment, monthly care coordination payments, and performance-based incentive payments. The model also includes care teams that coordinate patient outreach and support.	Total medical and pharmacy costs per-member, per-month, were 6.5 percent lower in the PCMH group than the control group. Among PCMH patients there was a 10.4 percent reduction in patient days per 1,000 enrollees per year. PCMH patients also had 36.3 percent fewer inpatient days and 32.3 percent fewer emergency room visits compared to the control patients. PCMH patients improved on 6 of 10 quality metrics. Due to this success BlueCross BlueShield of South Carolina has expanded its PCMH model to other medical groups and for federal employees.
<b>CIGNA Dartmouth-Hitchcock<sup>4</sup></b>	Dartmouth-Hitchcock provides embedded case management services to Cigna patients. Care coordinators were added to participating practices to support care plan development, transitions, and greater patient communication.	Enhanced fee schedule and opportunities for additional payments based on improvements in the quality and affordability of care.	Results show a 10.4 percent improvement in overall gaps in care closure rates, 13.8 percent greater closure rate for high-priority gaps, 16 percent greater closure rate for hypertension gaps, and 8.1 percent greater closure rate for diabetes gaps.
<b>Colorado Multi-Payer, Multi-State PCMH Pilot<sup>5</sup></b>	HealthTeamWorks is providing technical support to 16 family and internal medicine practices. The pilot began in 2009 covers up to 20,000 patients. Seven major insurers are participating.	Providers receive a per-member, per-month care management/coordination fee. They also use a pay-for-performance model that includes clinical and cost measures.	Although final results are pending, initial results show that pilot practices improved the health status of patients at risk for cardiovascular disease and for patients with diabetes. The pilots also improved rates of preventive care. These results all exceeded national benchmarks.

Medical home <sup>1</sup>	Details	Payment method	Outcomes
<b>Geisinger Health System – ProvenHealth Navigators, or PHN<sup>6</sup></b>	<p>Integrated delivery system PCMH model with 43 primary care clinics and more than 26,000 Medicare Advantage patients. The PHN pilot covered a subset of the system’s Medicare Advantage patients. The PHN has five core program components:</p> <ul style="list-style-type: none"> <li>• Patient-centered primary care</li> <li>• Integrated population management</li> <li>• Alignment of key community partners through a medical neighborhood model</li> <li>• Comprehensive quality improvement</li> <li>• Value-based reimbursement design</li> </ul>	<p>Monthly physician payments and a monthly transformation stipend of \$5,000 per 1,000 Medicare members help finance additional staff, support extended hours, and implement other infrastructure changes. An incentive pool based on differences between actual and expected total cost of care for medical home enrollees is conditional upon meeting quality indicators. The incentive payments will eventually replace the fixed monthly payments.</p>	<p>Relative to the control practices, there was a 7 percent reduction in total per-member, per-month costs. There was also an 18 percent reduction in total hospital admissions. There were also improvements in quality of prevention (74 percent improvement), coronary artery disease (22 percent), and diabetes care (34.5 percent) in the PCMH pilot practices. The model initially showed a return on investment of more than 2-to-1, and Geisinger expanded its initial model to more practices.</p>
<b>Group Health<sup>7</sup></b>	<p>Group Health is an integrated health insurance and delivery system with more than 900 employed physicians and more than 9,000 physicians and 39 hospitals in its contracted network. The pilot has been expanded to more than 380,000 patients.</p>	<p>Although Group Health’s physicians are typically paid through a productivity-based salary, those participating in the PCMH pilot were exempted from productivity-based salary adjustments to encourage care activities outside of in-person visits. Care delivery changes included virtual medicine such as email and telephone follow-ups, chronic care management, visit preparation, and patient outreach.</p>	<p>After two years PCMH patients reported high ratings on six of seven patient experience scales and experienced quality gains. Providers also experienced significantly less burnout. Group Health saved approximately \$10 per-member, per-month for total costs, allowing them to break even on its primary care staffing investment. The results also show nearly 30 percent fewer emergency department visits for a \$4 per-member/per-month savings, and 16 percent fewer hospital admissions for a \$14 per-member/per-month reduction in inpatient hospital costs. Return on the investments in the PCMH model was 1.5-to-1.</p>
<b>Vermont Blueprint for Health<sup>8</sup></b>	<p>The Blueprint is a comprehensive, statewide health care reform program established by state legislation that includes patient-centered medical homes. More than 78 practices serving 350,000 patients participate in the program. The medical home covers Medicaid beneficiaries, state employee health plan beneficiaries, and those covered by Vermont’s plan for the uninsured. CMS has selected the PCMH model as a participant in the Advanced Primary Care demonstration program.</p>	<p>Practices receive enhanced payments on a per-member, per-month basis through Vermont’s private insurers and Medicaid if quality standards are met.</p>	<p>Early results show an 11 percent reduction in hospitalizations, 12 percent reduction in ER visits, and a \$215 savings per patient.</p>

- 1 See pages 22-24 for discussions of CareFirst and Capital District Physician's Health Plan patient-centered medical home results.
- 2 Blue Cross Blue Shield of Michigan, "Patient-Centered Medical Home Fact Sheet" (2012).
- 3 Kevin Grumbach, Thomas Bodenheimer, and Paul Grundy, "The Outcomes of Implementing Patient-Centered Medical Home Interventions: A Review of the Evidence on Quality, Access and Costs from Recent Prospective Evaluation Studies" (2009) available at, [http://www.pcpcc.net/files/pcmh\\_evidence\\_outcomes\\_2009.pdf](http://www.pcpcc.net/files/pcmh_evidence_outcomes_2009.pdf).
- 4 For information about the CIGNA Dartmouth-Hitchcock program, including preliminary results, see: Tom Richards and Katie Wade, "Realigning Incentives: Making Health Care More Affordable in the Reform Era," PowerPoint presentation, May 12, 2011, available at [http://www.cigna.com/assets/docs/about-cigna/Webinar%20PPTs/May\\_Presentation\\_2011.pdf](http://www.cigna.com/assets/docs/about-cigna/Webinar%20PPTs/May_Presentation_2011.pdf).
- 5 For information about the HealthTeamWorks program, including preliminary results, see: "Patient-Centered Medical Home Pilot," available at <http://www.healthteamworks.org/medical-home/pcmh-pilot.html>.
- 6 Grumbach and others.
- 7 Ibid.
- 8 Vermont Blueprint for Health, "2011 Annual Report" (2012), available at [http://hcr.vermont.gov/sites/hcr/files/Blueprint%20Annual%20Report%20Final%2001%2026%2012%20\\_Final\\_.pdf](http://hcr.vermont.gov/sites/hcr/files/Blueprint%20Annual%20Report%20Final%2001%2026%2012%20_Final_.pdf).

## Appendix C

### Select accountable care organizations, or ACOs, quality and cost results

Public initiatives				
Program	Scope	Key organizational features	Payment model	Key outcomes
<p><b>Medicare Shared Savings Program, or MSSP<sup>1</sup></b> 2012–present The Medicare Shared Savings Program was established by the Affordable Care Act. The program encourages providers to improve care for Medicare beneficiaries and lower health care costs. <i>For more detailed information see page 29 of the report.</i></p>	<p><b>Accountable care organizations:</b></p> <ul style="list-style-type: none"> <li>• 116 organizations.</li> <li>• First group of 27 organizations started April 1, 2012.</li> <li>• Second group of 89 organizations started July 1, 2012.</li> </ul> <p><b>Patients:</b></p> <ul style="list-style-type: none"> <li>• 2.4 million Medicare patients.</li> <li>• Each organization is responsible for the care of at least 5,000 Medicare FFS patients.</li> </ul>	<p><b>Duration:</b> At least three years.</p> <p><b>Quality metrics:</b> CMS uses a revised list of 33 nationally recognized measures across four areas:</p> <ul style="list-style-type: none"> <li>• Patient/caregiver experience</li> <li>• Care coordination/patient safety</li> <li>• Preventive health</li> <li>• At-risk population health</li> </ul> <p>If accountable care organizations do not meet these quality metrics, they risk losing their contracts.</p>	<p><b>Two models:</b></p> <p>One-sided risk: Group shares savings with Medicare if spending is below target.</p> <p>Two-sided risk: Group and CMS share in savings and losses for all three years (target is like a global budget for all assigned beneficiaries). Accountable care organizations must meet quality targets to be eligible for upside savings.</p> <p>Additionally, some organizations (primarily small, physician-based organizations in rural areas) are part of the Advance Payment ACO Model demonstration, which provides upfront capital to invest in care redesign and infrastructure.</p>	<p>There are no published results yet.</p> <p><b>Cost:</b> CMS estimates the program will save \$940 million over four years. The Congressional Budget Office estimates \$4.9 billion in savings over 10 years.</p>
<p><b>Pioneer ACO Model<sup>2</sup></b> 2012–present Designed by the Center for Medicare and Medicaid Innovation for organizations with experience offering coordinated, patient-centered care and operating in ACO-like environments. Allows providers to move from a shared-savings payment model to a population-based payment model on a track aligned with the Medicare Shared Savings Program. This initiative is also designed to work in coordination with private payers.</p>	<p><b>Affordable care organizations:</b> 32 organizations.</p> <p><b>Patients:</b> Each affordable care organization must be responsible for the care of a minimum of 15,000 Medicare beneficiaries (5,000 for affordable care organizations in rural areas).</p>	<p><b>Duration:</b> Three years (three performance periods lasting 12 months each).</p> <p><b>Quality measures:</b> Uses the same 33 measures as the Medicare Shared Savings Program. Quality results will be reported publicly on the CMS website. By the end of 2012, at least 50 percent of participating primary care physicians must meet requirements for meaningful use of electronic health records.</p>	<p>In general, payment models being tested have higher potential levels of savings and risk than the Medicare Shared Savings Program. In the first two years, there will be shared savings arrangement with higher levels of savings and risk than in the Medicare Shared Savings Program. In the third year, organizations that have earned savings over first two years will be eligible to move to population-based payment arrangements and full-risk arrangements.</p>	<p>There are no results from this program yet.</p>

**Public initiatives**

Program	Scope	Key organizational features	Payment model	Key outcomes
<p><b>Brookings-Dartmouth ACO Pilot Project<sup>3</sup></b>            2009- present            The Engleberg Center for Health Care Reform at Brookings and the Dartmouth Institute for Health Policy and Clinical Practice launched the ACO pilot to foster early and successful adoption of accountable care organizations across the country. The pilot includes five pilot sites in which provider groups contract with private payers. All groups are in different stages of implementation.            Brookings-Dartmouth also supports an ACO learning network of more than 125 organizations to foster sharing of best practices.</p>	<p><i>See below for individual pilot descriptions and available results.</i></p>	<p><b>Duration:</b>            Five years  <b>Quality metrics:</b>            Brookings-Dartmouth worked with pilot organizations to develop a “starter set” of metrics that they continue to refine and update. Measures include those that are administrative only (e.g. number of readmissions), clinically enriched measures (e.g. preventive care), and patient-experience measures (e.g. care coordination).            Each accountable care organization must:</p> <ul style="list-style-type: none"> <li>• Provide/manage care as delivery system</li> <li>• Be of sufficient size to support performance measurement and expenditure projections</li> <li>• Be an organization capable of participating in shared savings model and planning accordingly</li> </ul>	<p>All pilot organizations will use a shared-savings model with no risk in year 1, transitioning to risk bearing by the end of the program.</p>	<p><i>See below for individual pilot descriptions and available results.</i></p>
<p><b>Monarch HealthCare<sup>4</sup></b>  <i>Brookings-Dartmouth pilot member</i>            Monarch is a large independent physician association in Orange County, California, partnering with Anthem.</p>	<p><b>Providers:</b>            500 of Monarch’s 760 primary care physicians will participate (not currently assigning patients to specialists)  <b>Payer:</b>            Anthem  <b>Patients:</b>            25,000 PPO members            *Note: Anthem plans to introduce an ACO product in 2012.</p>	<p><b>Quality measures:</b>            Quality measures based primarily on Healthcare Effectiveness Data and Information Set, or HEDIS, performance measures and additional efficiency measures  <b>Population health management:</b></p> <ul style="list-style-type: none"> <li>• Case management</li> <li>• Disease management</li> <li>• “Touch Teams”</li> <li>• Personal health records and advance directives</li> <li>• Use of urgent care and hospitalists</li> </ul>	<p>Shared savings with no risk in year 1, transition to risk bearing.            Providers are eligible for up to a 20 percent shared-savings bonus based on performance.            Providers receive a care management fee from Anthem.</p>	<p>There are no results yet but Anthem projects a potential 3 percent to 7 percent reduction in trend of total cost of care in 2012.</p>

## Public initiatives

Program	Scope	Key organizational features	Payment model	Key outcomes
<p><b>Norton Healthcare<sup>5</sup></b>  <i>Brookings-Dartmouth pilot member</i>                      Norton is a nonprofit, integrated delivery system based in Louisville, Kentucky.</p>	<p><b>Providers:</b>                      170 primary care physicians, 71 specialists in accountable care organizations  <b>Payers:</b>                      Humana  <b>Patients:</b>                      7,000 patients—Norton and Humana employees</p>	<p><b>Quality measures:</b>                      Norton has its own set of quality measures, derived largely from Physician Quality Reporting System indicators.  <b>Organizational capacity:</b>                      In 2009, prior to the pilot, Norton implemented its Performance for Excellence Program to focus on improving efficiency and quality of care.                      Prior to the ACO, they already had a pay-for-performance model in place. They are also dedicating significant resources towards establishing a robust health IT infrastructure.</p>	<p>Shared savings with no risk in year 1, transition to risk-bearing.                      Norton and Humana receive 60 percent of savings beyond 2 percent cost savings when compared to benchmark data.                      Doctors receive remaining 40 percent as coordinated care bonus. Savings result from not performing unnecessary tests or by intervening with preventive care in early stages of disease.</p>	<p>Humana and Norton executives cite greater information sharing as key to program's success. For example, Humana's data show more clearly which doctors prescribe brand-name drugs where generics could be equally effective.                      Interim results include:                      Blood sugar testing rose to 93 percent of diabetic patients (up from 88 percent).                      Cholesterol tests for diabetic patients rose from 84 percent to 92 percent.                      Use of expensive imaging tests decreased 56 percent for patients newly diagnosed with back pain, down from 65 percent.</p>
<p><b>HealthCare Partners<sup>6</sup></b>  <i>Brookings-Dartmouth pilot member</i>                      HealthCare Partners is a medical group and independent physician association in Los Angeles, California.                      The accountable care organization is being integrated into HealthCare Partners' existing coordinated care model. HealthCare Partners is also a Pioneer ACO.</p>	<p><b>Providers:</b>                      1,000 primary care physicians, 1,700 specialists  <b>Payers:</b>                      Anthem  <b>Patients:</b>                      50,000 Anthem PPO members</p>	<p><b>Quality measures:</b>                      Still in development but will be aligned with Brookings-Dartmouth starter set.  <b>Organizational capacity:</b>                      HealthCare Partners uses regional business units to ensure that services are delivered based on local needs. Each regional team is accountable for the collective performance of doctors in their unit. Team performance determines compensation.                      The organization also has a strong system for managing population health, quality and costs, which includes a robust HIT infrastructure, care management tools, and use of hospitalists.</p>	<p>Shared savings with no risk in year 1, transition to risk bearing.                      Providers will receive a medical management fee.                      Percentage of savings providers are eligible for is not determined yet, but will only be available if providers meet quality thresholds.</p>	<p>There are no results yet, but Anthem projects a potential 3 percent to 7 percent reduction in trend of total cost of care in 2012.</p>
<p><b>Tucson Medical Center<sup>2</sup></b>  <i>Brookings-Dartmouth pilot member</i>                      Tucson Medical center is a non-profit community hospital. A new legal entity, the Southern Arizona Accountable Care Organization was created to virtually integrate the hospital and physician groups.</p>	<p><b>Providers:</b>                      55 primary care physicians, 35 specialists  <b>Payer:</b>                      United Healthcare  <b>Patients:</b>                      8,000 Medicare Advantage beneficiaries and 23,000 commercial PPO members</p>	<p><b>Quality measures:</b>                      Still in development, but will be aligned with Brookings-Dartmouth starter set.  <b>Organizational capacity:</b>                      Tucson has several programs aimed at care management, including Hospitals-to-Home post-acute care coordination, seven PCMHs and care coordination teams.</p>	<p>Shared savings with no risk in year 1, transition to risk-bearing, likely by year 3.                      Any savings will be distributed as follows: 65 percent to physicians, 20 percent to the hospital, 15 percent to meet internal efficiency goals.                      Physicians will not be eligible for any upside savings unless they meet quality thresholds.</p>	<p>No results yet.</p>

## Public initiatives

Program	Scope	Key organizational features	Payment model	Key outcomes
<p><b><u>Vermont Accountable Care Organization Pilot</u></b><sup>8</sup> 2008–present</p> <p>The pilot developed from the larger Vermont Blueprint for Health Reform legislation.</p> <p>Vermont conducted a feasibility study in 2008, launched its first pilot sites in 2009, and began an accelerated expansion of pilots in 2010.</p> <p>Several sites are part of the Brookings-Dartmouth national learning network.</p>	<p><b>Providers:</b> Three provider organizations created accountable care organizations to be integrated with state comprehensive health reform efforts. Network includes three community hospitals, one tertiary hospital, and the Vermont Medicaid agency.</p> <p>A previous state study on ACO feasibility concluded that strong PCMH capacity should be a prerequisite for implementing an accountable care organization.</p> <p><b>Payers:</b> Three major commercial insurers.</p>	<p><b>Duration:</b> Pilot organizations committed to participating for three to five years.</p> <p><b>Quality:</b> Uses the Brookings-Dartmouth starter set of clinical process and outcome measures, as well as patient experience data. Vermont is also exploring an additional set of population health measures that are consistent with the Institute for Healthcare Improvement's Triple Aim initiative.</p>	<p>Payment models differed for the pilot sites based on their experience. Two sites used a shared savings model, while the third site used a partial capitation model.</p> <p>The goal of the program was to reinvest part of shared savings in local community health systems.</p>	<p>There are no results available yet.</p>
<p><b><u>Blue Shield of California - Sacramento ACO</u></b><sup>9</sup> 2010–present</p> <p>The Sacramento ACO uses an integrated delivery system model to align incentives among the health plan, hospital system and medical group. The goal of the accountable care organization is to keep 2010 health care premium costs flat.</p>	<p><b>Providers:</b> Catholic Healthcare West hospital system, Hill Physicians Medical Group</p> <p><b>Patients:</b> The program serves more than 41,500 eligible CalPERS (retired state employees) members in the greater Sacramento region</p> <p><i>*BSCA also has accountable care organizations across California and by 2015 plan to have 20 across the state.</i></p>	<p><b>Quality measures:</b> No defined quality metrics other than reducing unnecessary procedures and practices.</p> <p>CalPERS acts as an active purchaser, creating incentives for members to choose the HMO benefit plan by offering premium discounts.</p> <p>Each organization shares clinical and case management info to tightly coordinate care.</p>	<p>The pilot uses a shared-savings/global payment hybrid model. The providers and BSCA use a global three-way budget and share financial risk and any savings.</p>	<p>Results for 2010:</p> <p><b>Quality:</b></p> <ul style="list-style-type: none"> <li>• 15 percent reduction in inpatient readmissions</li> <li>• 15 percent decrease in inpatient days</li> <li>• 50 percent decrease in inpatient stays of 20 or more days</li> <li>• A half-day reduction in average patient length of stay</li> </ul> <p><b>Costs:</b></p> <ul style="list-style-type: none"> <li>• \$37 million saved (2010 and 2011)<sup>10</sup></li> <li>• As of July 2010, the organizations had achieved \$31 per-member, per-month in savings</li> </ul> <p><b>Cost drivers:</b></p> <ul style="list-style-type: none"> <li>• Hysterectomies and elective knee surgeries biggest drivers</li> <li>• Preventable readmissions</li> <li>• Costly out-of-network services</li> </ul>

## Public initiatives

Program	Scope	Key organizational features	Payment model	Key outcomes
<p><b>Cigna's Collaborative Accountable Care (CAC) Program</b><sup>11</sup> 2008–present</p> <p>Cigna's commercial accountable care organization is an insurer-physician partnership providing coordinated care to improve quality and contain costs for Cigna's commercial and Medicare Advantage patients.</p>	<p><b>Providers:</b> 38 CAC organizations with more than 4,500 primary care doctors.</p> <ul style="list-style-type: none"> <li>• These organizations include large primary care or multi-specialty physician groups, independent physician associations, integrated delivery systems, and physician-hospital organizations.</li> <li>• Participating providers are required to hire one embedded care coordinator for every 10,000 members in practice.</li> </ul> <p><b>Patients:</b> More than 300,000 members across 19 states. Cigna's goal is to have 100 CAC organizations serving 1 million members by 2014.</p>	<p><b>Duration:</b> Contracts are typically three years.</p> <p><b>Quality:</b> NCQA quality measures. Additionally, Cigna provides practices with organizational profiles that identify opportunities for improvement on total medical cost trends and adherence to evidence-based medicine. Cigna then works with the group to develop an action plan for improvement.</p>	<p>No financial rewards paid if groups do not meet quality threshold. In year 1, Cigna pays a care management fee based on the provider's goals. After year 1, providers can earn rewards for meeting improvement goals. The reward is a periodic care management fee per patient, and is adjusted based on the group's impact on total medical cost trend and quality performance.</p>	<p>Early results indicate that some CAC organizations outperformed other organizations in their market on several metrics, including:</p> <ul style="list-style-type: none"> <li>• Reduced avoidable emergency room visits</li> <li>• Improved control of blood sugar levels for diabetics</li> <li>• Reduced costs for ambulatory surgery</li> </ul> <p>Of the eight CAC organizations that have more than one year of operating experience, 50 percent are meeting both cost and quality goals.</p>
<p><b>Dartmouth-Hitchcock Clinic</b><sup>12</sup> (New Hampshire) <i>A Cigna CAC member</i></p>	<p><i>See above.</i></p>	<p><i>See above.</i></p>	<p><i>See above.</i></p>	<p>Results from 2007–2011 include:</p> <ul style="list-style-type: none"> <li>• 10.4 percent improvement in gaps in care closure rates</li> <li>• 13.8 percent gaps in care closure</li> <li>• 16 percent higher gaps in care closure rate for hypertensive patients</li> <li>• 8.1 percent higher gaps in care closure rate for diabetes patients</li> </ul>
<p><b>Medical Clinical of North Texas</b><sup>13</sup> <i>A Cigna CAC member</i></p>	<p><i>See above.</i></p>	<p><i>See above.</i></p>	<p><i>See above.</i></p>	<p>Results from 2007–2011 include:</p> <ul style="list-style-type: none"> <li>• 7 percent reduction in avoidable emergency room visits</li> <li>• 6.3 percent better than market adherence to evidence-based medicine</li> <li>• 3 percent improvement in control of blood sugar levels for diabetes patients, along with improved management of cholesterol and blood pressure levels for these patients</li> </ul>

## Public initiatives

Program	Scope	Key organizational features	Payment model	Key outcomes
<p><b>Cigna Medical Group (Arizona)<sup>14</sup></b> A Cigna CAC member</p>	<p>See above.</p>	<p>See above.</p>	<p>See above.</p>	<p>Results from 2007–2011 include:</p> <ul style="list-style-type: none"> <li>• 12 percent increase in adult preventive care visits</li> <li>• 11 percent decrease in outpatient surgery and costs</li> <li>• 3 percent higher quality compared to market</li> <li>• 7 percent lower total medical costs compared to market</li> </ul>
<p><b>BCBS Massachusetts Alternative Quality Contract (AQC)<sup>15</sup></b> 2009–2014 BCBS launched the AQC program to reduce high medical expense trends. The program's goal was to reduce participating organizations' cost trend lines by 50 percent in five years.</p>	<p><b>Providers:</b> 11 physician groups, ranging from 72 doctors to 1,300 doctors:</p> <ul style="list-style-type: none"> <li>• 1,600 primary care physicians.</li> <li>• 3,200 specialists.</li> <li>• Some groups had experience with risk contracts.</li> </ul> <p><b>Patients:</b> Providers must include primary care physicians who collectively care for at least 5,000 BCBS members in either HMO or point-of-service, or POS, plans.</p>	<p><b>Duration:</b> Five years.</p> <p><b>Quality:</b> 64 total quality measures (broad overlap w/the Medicare Shared Savings Program):</p> <ul style="list-style-type: none"> <li>• 32 ambulatory care measures</li> <li>• 32 hospital care measures</li> </ul> <p>Includes patient experience measures.</p> <p>Quality measures include:</p> <ul style="list-style-type: none"> <li>• Cancer screenings</li> <li>• Well-child care</li> <li>• Blood sugar control for diabetic patients</li> </ul> <p>Health outcome measures (e.g. controlling blood pressure) given three times the weight of process measures. Participating organizations also working with BCBS on “developmental measures”—testing new performance measures.</p> <p><b>Health IT:</b> BCBS reporting system gives providers performance reports and shares best practices. Reports emphasize unexplained variations in practice patterns.</p>	<p>Per-patient global budget that covers the entire continuum of patient care. Initial budget is based on historical cost expenditure levels and adjusted yearly for inflation and patient risk/health status.</p> <p>When determining the budget, BCBS's goal was not necessarily to reduce spending, but to control future cost growth.</p> <p>Budgets are annually risk adjusted for patients' health statuses.</p> <p><b>Incentive payments:</b> Bonuses for meeting quality measures based on an aggregated score. Providers can earn up to 10 percent of global budget for meeting quality measures for both physician and hospital services.</p>	<p><b>Year 2 results:</b> Achieved savings of 3.3 percent (\$107/year/member).</p> <p><b>Two-year period results:</b> Savings were 2.8 percent (\$90/year/member).</p> <p>Majority of savings from reduced costs on high-risk patients. Savings also accrued largely from reduced spending for procedures, imaging, lab tests. Ten of 11 groups spent less than 2010 targets, earning a budget surplus payment.</p> <p><b>Quality attainment:</b> All groups earned a 2010 quality bonus. Ambulatory care quality measures (assessing chronic care management, adult preventive care, pediatric care) improved more in year 2 than in year 1. Groups with no experience with risk contracts had substantially larger savings than groups with experience. Five AQC organizations are now Pioneer ACOs.</p>

- 1 RTI International and Telligen, "Accountable Care Organization 2012 Program Analysis" (2011), available at [http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharedsavingsprogram/Downloads/ACO\\_QualityMeasures.pdf](http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharedsavingsprogram/Downloads/ACO_QualityMeasures.pdf).
- 2 "Pioneer ACO Model," available at <http://innovations.cms.gov/initiatives/aco/pioneer/>.
- 3 "ACO Learning Network," available at <http://www.acolearningnetwork.org>; Aricca D. Van Citters and others, "Four Health Care Organizations' Efforts to Improve Patient Care and Reduce Costs" (New York: The Commonwealth Fund, 2012), available at [http://www.commonwealthfund.org/~media/Files/Publications/Case%20Study/2012/Jan/1571\\_Van%20Citters\\_dartmouth\\_ACO\\_synthesis\\_01\\_12\\_2012.pdf](http://www.commonwealthfund.org/~media/Files/Publications/Case%20Study/2012/Jan/1571_Van%20Citters_dartmouth_ACO_synthesis_01_12_2012.pdf).
- 4 Kathleen L. Carluccio and others, "Monarch HealthCare: Leveraging Expertise in Population Health Management" (New York: The Commonwealth Fund, 2012), available at [http://www.commonwealthfund.org/~media/Files/Publications/Case%20Study/2012/Jan/1573\\_Carluccio\\_Monarch\\_case%20study\\_01\\_17\\_2012.pdf](http://www.commonwealthfund.org/~media/Files/Publications/Case%20Study/2012/Jan/1573_Carluccio_Monarch_case%20study_01_17_2012.pdf).
- 5 Josette N. Gbemudu and others, "Norton Healthcare: A Strong Payer-Provider Partnership for the Journey to Accountable Care" (New York: The Commonwealth Fund, 2012), available at [http://www.commonwealthfund.org/~media/Files/Publications/Case%20Study/2012/Jan/1574\\_Gbemudu\\_Norton\\_case%20study\\_01\\_12\\_2012.pdf](http://www.commonwealthfund.org/~media/Files/Publications/Case%20Study/2012/Jan/1574_Gbemudu_Norton_case%20study_01_12_2012.pdf).
- 6 Josette N. Gbemudu and others, "HealthCare Partners: Building on a Foundation of Global Risk Management to Achieve Accountable Care" (New York: The Commonwealth Fund, 2012), available at [http://www.commonwealthfund.org/~media/Files/Publications/Case%20Study/2012/Jan/1572\\_Gbemudu\\_HealthCare\\_Partners\\_case%20study\\_01\\_17\\_2012.pdf](http://www.commonwealthfund.org/~media/Files/Publications/Case%20Study/2012/Jan/1572_Gbemudu_HealthCare_Partners_case%20study_01_17_2012.pdf).
- 7 Kathleen L. Carluccio and others, "Tucson Medical Center: A Community Hospital Aligning Stakeholders for Accountable Care" (New York: The Commonwealth Fund, 2012), available at [http://www.commonwealthfund.org/~media/Files/Publications/Case%20Study/2012/Jan/1575\\_Carluccio\\_Tucson\\_case%20study\\_01\\_12\\_2012.pdf](http://www.commonwealthfund.org/~media/Files/Publications/Case%20Study/2012/Jan/1575_Carluccio_Tucson_case%20study_01_12_2012.pdf).
- 8 Jim Hester, Julie Lewis, and Aaron McKethan, "The Vermont Accountable Care Organization Pilot: A Community Health System to Control Total Medical Costs and Improve Population Health" (New York: The Commonwealth Fund, 2010), available at <http://www.commonwealthfund.org/Publications/Fund-Reports/2010/May/The-Vermont-Accountable-Care-Organization-Pilot-A-Community-Health-System-to-Control.aspx>.
- 9 Blue Shield of California, "Fact Sheet: BSCA and Accountable Care Organizations (ACOs)," available at [https://www.blueshieldca.com/bsca/documents/about-blue-shield/health-reform/ACO\\_Blue\\_Shield\\_Fact\\_Sheet\\_72811.pdf](https://www.blueshieldca.com/bsca/documents/about-blue-shield/health-reform/ACO_Blue_Shield_Fact_Sheet_72811.pdf); National Business Coalition on Health, "Case Study: California Public Employees' Retirement System (CalPERS)" (2010); Blue Shield of California, "HHS Secretary Kathleen Sebelius Reviews Key Pilot Program Tied to Health Reform Goals," Press release, September 16, 2011, available at <https://www.blueshieldca.com/bsca/about-blue-shield/newsroom/sebelius-reviews-aco-pilot-programs.sp>.
- 10 Chad Terhune, "CalPERS saves \$37 million as medical groups coordinate healthcare," Los Angeles Times. Sept 5, 2012.
- 11 Cigna, "Collaborative Accountable Care: CIGNA's Approach to Accountable Care Organizations" (2011), available at [http://newsroom.cigna.com/images/9022/CollaborativeCare\\_White\\_Paper\\_v2.pdf](http://newsroom.cigna.com/images/9022/CollaborativeCare_White_Paper_v2.pdf).
- 12 Ibid.
- 13 Ibid.
- 14 Ibid.
- 15 Zirui Song and others, "The 'Alternative Quality Contract,' Based on a Global Budget, Lowered Medical Spending and Improved Quality," Health Affairs 31 (8) (2012), available at <http://content.healthaffairs.org/cgi/content/full/hlthaff.2012.0327?ijkey=jmrh6NDSKOQw2&keytype=ref&siteid=healthaff>.

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## Endnotes

- Centers for Medicare & Medicaid Services, Office of the Actuary, "National Health Expenditure Projections 2011-2021" (2011), available at <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/Proj2011PDF.pdf>; Organization for Economic Cooperation and Development, "OECD Health Data 2012" (2012), available at <http://www.oecd.org/health/healthpoliciesanddata/oecdhealthdata2012.htm>.
- Organization for Economic Cooperation and Development, "OECD Health Data 2012."
- The Dartmouth Atlas of Health Care, "Reflections on Variation," available at <http://www.dartmouthatlas.org/keyissues/issue.aspx?con=1338>; Elliott S. Fisher and others, "The Implications of Regional Variations in Medicare Spending. Part 2: Health Outcomes and Satisfaction With Care," *Annals of Internal Medicine* 138 (4) (2003): 288-298.
- U.S. Bureau of Labor Statistics, "Fee-for-Service: Features and associated costs of fee-for-service Medical Plans," *Program Perspectives* 2 (5) (2010), available at [http://www.bls.gov/opub/perspectives/program\\_perspectives\\_vol2\\_issue5.pdf](http://www.bls.gov/opub/perspectives/program_perspectives_vol2_issue5.pdf); MedPAC, "Report to Congress: Medicare Payment Policy" (2012).
- Elliott S. Fisher, David C. Goodman, and Amitabh Chandra, "Disparities in Health and Health Care Among Medicare Beneficiaries" (Hanover: Dartmouth Institute for Health Policy and Clinical Practice, 2008).
- Robert E. Mechanic and Stuart H. Altman, "Payment Reform Options: Episode Payment is a Good Place to Start," *Health Affairs* 28 (2) (2009): w262-w271; Robert E. Mechanic, "Opportunities and Challenges for Episode-Based Payment," *New England Journal of Medicine* 365 (9) (2011): 777-779; David M. Cutler and Kaushik Ghosh, "The Potential for Cost Savings through Bundled Episode Payments," *New England Journal of Medicine* 366 (12) (2012): 1075-1077; Harold D. Miller, "From Volume to Value: Better Ways to Pay For Health Care," *Health Affairs* 28 (5) (2009): 1418-28.
- Michael W. Painter, Megan E. Burns, and Michael H. Bailit, "Bundled Payment Across the U.S. Today: Status of Implementations and Operational Findings" (Newton: Health Care Incentives Improvement Institute, available at <http://www.hci3.org/sites/default/files/files/HCI-IssueBrief-4-2012.pdf>).
- Kaiser Family Foundation, "Prevalence of Chronic Conditions Among Non-Institutionalized Medicare Beneficiaries, 2006" *Medicare Chartbook*, Fourth ed., (2010), available at <http://facts.kff.org/chart.aspx?cb=58&scntn=162&ch=1720>.
- Peter S. Hussey and others, "Episode-based Performance Measurement and Payment: Making it a Reality," *Health Affairs* 28 (5) (2009):1406-17.
- Danil V. Makarov and others, "Appropriate and Inappropriate Imaging Rates for Prostate Cancer Go Hand in Hand by Region, as if Set by Thermostat," *Health Affairs* 31 (4) (2012): 730-740; Philip Ellis and others, "Wide Variation in Episode Costs Within a Commercially Insured Population Highlights Potential to Improve the Efficiency of Care," *Health Affairs* 31 (9) (2012): 2084-2093; Elliott S. Fisher and others, "Slowing the Growth of Health Care Costs – Lessons from Regional Variation," *New England Journal of Medicine* 360 (2009):849-852.
- Lee N. Newcomer, "Changing Physician Incentives for Cancer Care To Reward Better Patient Outcomes," *Health Affairs* 31 (4) (2012): 780-785.
- Glenn Hackbarth, Robert Reischauer, and Anne Mutti, "Collective Accountability for Medical Care – Toward Bundled Medicare Payments," *New England Journal of Medicine* 359 (1) (2008): 3-5.
- Cutler and Ghosh, "The Potential for Cost Savings through Bundled Episode Payments."
- Ibid.
- CAP interview with Michael Zucker, Senior VP of Baptist Health Systems, April 25, 2012.
- Ibid.
- Ibid.
- Mechanic, "Opportunities and Challenges for Episode-Based Payment."
- Medicare Payment Advisory Commission, "Hospital Acute Inpatient Services Payment System," *Payment Basics* (2009), available at [http://www.medpac.gov/documents/MedPAC\\_Payment\\_Basics\\_09\\_hospital.pdf](http://www.medpac.gov/documents/MedPAC_Payment_Basics_09_hospital.pdf).
- Section 3023 of the Affordable Care Act, 2010.
- Chris Tompkins and others, "Designing the BPCI For Success: CMMI Bundled Payments for Care Improvement Requires Design Changes to Ensure Pilot Success" (Newton: Health Care Incentives Improvement Institute), available at: <http://www.hci3.org/content/hci3-improving-incentives-issue-brief-designing-bpci-success>.
- Ibid.
- Painter, Burns, and Bailit, "Bundled Payment Across the U.S. Today."
- Ibid.
- Robert Wood Johnson Foundation, "PROMETHEUS Payment: On the Frontlines of Health Care Payment Reform," available at <http://www.rwjf.org/pr/product.jsp?id=66748>.
- Ibid.
- Fisher, Goodman, and Chandra, "Disparities in Health and Health Care Among Medicare Beneficiaries."
- Congressional Budget Office, "Geographic Variation in Health Care Spending" (2008).
- James D. Reschovsky and others, "Paying More for Primary Care: Can It Help Bend the Medicare Cost Curve?" (Washington: The Commonwealth Fund, 2012), p. 6.
- David C. Goodman and others, "Regional Racial Variation in Primary Care and the Quality of Care Among Medicare Beneficiaries" (Dartmouth Atlas Projec, 2010), available at [www.dartmouthatlas.org/downloads/reports/Primary\\_care\\_report\\_090910.pdf](http://www.dartmouthatlas.org/downloads/reports/Primary_care_report_090910.pdf).
- "Medical Homes – More than 40 Years in the Making" *Infocus: The Quarterly Journal for Health Care Practice and Risk Management* (16) (2011): 3.

- 32 National Committee for Quality Assurance, available at <http://www.ncqa.org/tabid/675/Default.aspx>.
- 33 "NCQA Patient-Centered Medical Home 2011: An Established Model of Care Coordination," available at <http://www.ncqa.org/LinkClick.aspx?fileticket=ycS4coFOGnw%3d&tabid=631>; "NCQA's Patient-Centered Medical Home (PCMH) 2011," White Paper, available at <http://www.ncqa.org/LinkClick.aspx?fileticket=BFn4dvDQMIA%3D&tabid=136>.
- 34 Ibid.
- 35 Ibid; American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians, American Osteopathic Association, "Joint Principles of the Patient-Centered Medical Home," available at <http://www.pcpcc.net/content/joint-principles-patient-centered-medical-home>.
- 36 Allan H. Goroll and others. "Fundamental Reform of Payment for Adult Primary Care: Comprehensive Payment for Comprehensive Care," *Journal of General Internal Medicine* 22 (2007):410-5.
- 37 Ibid.
- 38 Ibid.
- 39 Dough Trapp, "Medical homes for Medicaid: The North Carolina model," *American Medical News*, August 2, 2011, available at <https://www.communitycarenc.org/media/publications/ccnc-approach-in-ama-news-august-2-2010.pdf>; Robert Cosway, Chris Girod, and Barbara Abbott, "Analysis of Community Care of North Carolina Cost Savings" (Community Care North Carolina, 2011), available at <https://www.communitycarenc.org/elements/media/files/milliman-executive-summary.pdf>; Ellen-Marie Whelan and Lesley Russell, "Better Health Care at Lower Costs; Why Health Care Reform Will Drive Better Models of Health Care Delivery" (Washington: Center for American Progress, 2010), available at [http://www.americanprogress.org/wp-content/uploads/issues/2010/03/pdf/health\\_delivery.pdf](http://www.americanprogress.org/wp-content/uploads/issues/2010/03/pdf/health_delivery.pdf).
- 40 Neva Kaye, Jason Buxbaum, and Mary Takach, "Building Medical Homes: Lessons From Eight States With Emerging Programs," (Commonwealth Fund and National Academy for State Health Polic, 2011), available at [http://www.commonwealthfund.org/~media/Files/Publications/Fund%20Report/2011/Dec/1569\\_Kaye\\_building\\_medical\\_homes\\_v2.pdf](http://www.commonwealthfund.org/~media/Files/Publications/Fund%20Report/2011/Dec/1569_Kaye_building_medical_homes_v2.pdf).
- 41 Kevin Grumbach, Thomas Bodenheimer, and Paul Grundy, "The Outcomes of Implementing Patient-Centered Medical Home Interventions: A Review of the Evidence on Quality, Access and Costs from Recent Prospective Evaluation Studies" (2009) available at, [http://www.pcpcc.net/files/pcmh\\_evidence\\_outcomes\\_2009.pdf](http://www.pcpcc.net/files/pcmh_evidence_outcomes_2009.pdf).
- 42 "Multi-payer Advanced Primary Care Practice Demonstration Fact Sheet," available at [http://www.cms.gov/Medicare/Demonstration-Projects/DemoProjectsEvalRpts/downloads/mapcpdemo\\_Factsheet.pdf](http://www.cms.gov/Medicare/Demonstration-Projects/DemoProjectsEvalRpts/downloads/mapcpdemo_Factsheet.pdf).
- 43 Social Security Act § 1945, as added by § 2703 of the Patient Protection and Affordable Care Act.
- 44 Kaiser Commission on Medicaid and the Uninsured, "Medicaid health Homes for Beneficiaries With Chronic Conditions" (2012), available at <http://www.kff.org/medicaid/upload/8340.pdf>.
- 45 Comprehensive Primary Care Initiative, available at <http://innovation.cms.gov/initiatives/comprehensive-primary-care-initiative/index.html>.
- 46 Ibid.
- 47 Center for Medicare and Medicaid Innovation, "Comprehensive Primary Care Initiative: New York: Capital District-Hudson Valley Region," available at <http://innovation.cms.gov/initiatives/Comprehensive-Primary-Care-Initiative/New-York.html>.
- 48 CAP interview with Bruce Nash, senior vice president of medical affairs, Capital District Physicians' Health Plan, August 17, 2012.
- 49 Bruce Nash, Testimony before the Committee on Energy and Commerce, U.S. House of Representatives, July 2012, available at <http://republicans.energycommerce.house.gov/Media/file/Hearings/Health/20120718/HHRG-112-IF14-Wstate-NashB-20120718.pdf>.
- 50 J Lester Feder, "A Health Plan Spurs Transformation of Primary Care Practices into Better-Paid Medical Homes," *Health Affairs* 30 (3) (2011): 397-399.
- 51 Nash, Testimony before the Committee on Energy and Commerce.
- 52 Allan Goroll and others, "Fundamental Reform of Payment for Adult Primary Care: Comprehensive Payment for Comprehensive Care," *Journal of General Internal Medicine* (22) (2007): 410-5.
- 53 Feder, "A Health Plan Spurs Transformation of Primary Care Practices into Better-Paid Medical Homes"; Goroll and others, "Fundamental Reform of Payment for Adult Primary Care."
- 54 Nash, Testimony before the Committee on Energy and Commerce.
- 55 Ibid
- 56 Ibid
- 57 Federally Qualified Health Center, Advanced Primary Care Practice Demonstration Website, available at <http://innovations.cms.gov/initiatives/fqhcs/index.html>.
- 58 Section 1301(a)(3) of the Patient Protection and Affordable Care Act.
- 59 Robert A. Berenson, Kelly J. Devers, Rachel A. Burton, "Will the Patient-centered Medical Home Transform the Delivery of Health Care?" (2011), available at <http://www.rwjf.org/files/research/20110805quickstrikepaper.pdf>; Deborah Peikes and others, "Early Evaluations of the Medical Home: Building on a Promising Start," *The American Journal of Managed Care*, 18 (2) (2012):105-116.
- 60 CAP interview with David Grosso, vice president of public policy, CareFirst, BlueCross BlueShield and Michael Sullivan, Director, CareFirst, BlueCross BlueShield, August 14, 2012.
- 61 CareFirst BlueCross BlueShield Announces First-Year Patient-Centered Medical Home Results, available at <http://www.prweb.com/pdfdownload/9582170.pdf>.
- 62 Ibid.
- 63 Ibid.
- 64 Ibid.
- 65 Arnold Milstein and Elizabeth Gilbertson, "American Medical Home Runs," *Health Affairs* 28 (5) (2009):1317-1326.

- 66 Ibid.
- 67 Ibid.
- 68 Thomas Bodenheimer, Kevin Grumbach, and Robert Berenson, "A Lifeline for Primary Care," *New England Journal of Medicine* 360 (26) (2009): 2693-2696.
- 69 Robert Nocon and others, "Association Between Patient-Centered Medical Home Rating and Operating Cost at Federally Funded Health Centers," *Journal of the American Medical Association*, 308 (1) (2008):60-66.
- 70 Ibid.
- 71 CAP interview with David Grosso.
- 72 Zirui Song and others, "The 'Alternative Quality Contract' Based on a Global Budget, Lowered Medical Spending and Improved Quality," *Health Affairs* 31 (8) (2012): 1885-1894.
- 73 Ibid; Milstein and Gilbertson, "American Medical Home Runs."
- 74 Robert A. Berenson, Kelly J. Devers, and Rachel A. Burton, "Will the Patient-Centered Medical Home Transform the Delivery of Health Care?" (Washington: The Urban Institute and The Robert Wood Johnson Foundation, 2011).
- 75 David Muhlestein and others, "Growth and Dispersion of Accountable Care Organizations: June 2012 Update," (Leavitt Partners, Center for Accountable Care Intelligence), available at <http://leavittpartners.com/wp-content/uploads/2012/06/Growth-and-Dispersion-of-ACOs-June-2012-Update.pdf>.
- 76 Anne-Marie J. Audet and others, "Hospitals on the Path to Accountable Care: Highlights from a 2011 National Survey of Hospital Readiness to Participate in an Accountable Care Organization," (The Commonwealth Fund, 2012), available at [http://www.commonwealthfund.org/~media/Files/Publications/Issue%20Brief/2012/Aug/1625\\_Audet\\_hospitals\\_path\\_accountable\\_care\\_ib\\_v2.pdf](http://www.commonwealthfund.org/~media/Files/Publications/Issue%20Brief/2012/Aug/1625_Audet_hospitals_path_accountable_care_ib_v2.pdf).
- 77 U.S. Department of Health and Human Services, "HHS announces 89 new Accountable Care Organizations," Press Release, July 9, 2012, available at <http://www.hhs.gov/news/press/2012pres/07/20120709a.html>.
- 78 Congressional Budget Office, Letter to Honorable Harry Reid, December 19, 2009, available at [http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/108xx/doc10868/12-19-reid\\_letter\\_managers\\_correction\\_noted.pdf](http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/108xx/doc10868/12-19-reid_letter_managers_correction_noted.pdf).
- 79 Section 1899 of the Social Security Act, as added by Section 3022 of the Affordable Care Act.
- 80 Stuart Guterman and others, "High Performance Accountable Care: Building on Success and Learning from Experience," (The Commonwealth Fund, Commission on a High Performance Health System, 2011), available at [http://www.commonwealthfund.org/~media/Files/Publications/Fund%20Report/2011/Apr/1494\\_Guterman\\_high\\_performance\\_accountable\\_care\\_v3.pdf](http://www.commonwealthfund.org/~media/Files/Publications/Fund%20Report/2011/Apr/1494_Guterman_high_performance_accountable_care_v3.pdf).
- 81 Ibid; Jim Hester, Julie Lewis, and Aaron McKethan, "The Vermont Accountable Care Organization Pilot: A Community Health System To Control Total Medical Costs and Improve Population Health," (The Commonwealth Fund, 2010), available at <http://www.commonwealthfund.org/Publications/Fund-Reports/2010/May/The-Vermont-Accountable-Care-Organization-Pilot-A-Community-Health-System-to-Control.aspx>.
- 82 Robert A. Berenson, "Shared Savings Program for Accountable Care Organizations: A Bridge to Nowhere?" *American Journal of Managed Care* 16 (2010): 721-6.
- 83 Section 1899 of the Social Security Act.
- 84 Medicare Payment Advisory Commission, "Improving Incentives in the Medicare Program" (2009).
- 85 Mark C McClellan and Elliot S. Fisher, "Accountable Care Organization Learning Network Toolkit" (Washington: Brookings Institution, 2011).
- 86 Hester, Lewis, and McKethan, "The Vermont Accountable Care Organization Pilot"; Aparna Higgins and others, "Early lessons from Accountable Care Models In The Private Sector: Partnerships Between Health Plans and Providers," *Health Affairs* 30 (9) (2011): 1718-27.
- 87 The American Medical Association, "Accountable Care Organization (ACO) Principles" (2010). Available at: <http://www.ama-assn.org/ama1/pub/upload/mm/399/aco-principles.pdf>.
- 88 Hester, Lewis, and McKethan, "The Vermont Accountable Care Organization Pilot."
- 89 Ibid.
- 90 Guterman and others, "High Performance Accountable Care."
- 91 CAP Interview with Dr. Stuart Rosenberg, president, and Roberta Zysman, executive director, Beth Israel Deaconess Physician Organization, July 18, 2012.
- 92 CAP Interview with Dr. Rick Lopez, Chief Medical Officer, ATRIUS Health, July 3, 2012.
- 93 CAP Interview with Michael Murphy, senior vice president/president & CEO of Iowa Health System accountable Care Organization, August 16, 2012.

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