THE COMMONWEALTH FUND

Toward Accountable Care

Case Study Series • January 2012

Four Health Care Organizations' Efforts to Improve Patient Care and Reduce Costs

Aricca D. Van Citters, Bridget K. Larson, Kathleen L. Carluzzo, Josette N. Gbemudu, Sara A. Kreindler, Frances M. Wu, Stephen M. Shortell, Eugene C. Nelson, and Elliott S. Fisher

Abstract: This report synthesizes findings and lessons from case studies of four diverse health care organizations participating in the Brookings–Dartmouth ACO Pilot Program, launched in 2009 to support selected provider groups that are collaborating with private payers to form accountable care organizations (ACOs). The organizations are: HealthCare Partners, a medical group/independent practice association (IPA) in Los Angeles, Calif.; Monarch HealthCare, an IPA in Orange County, Calif.; Norton Healthcare, an integrated delivery system in Louisville, Ky.; and Tucson Medical Center, a community hospital working with independent provider groups in Tucson, Ariz. Each has agreed to take responsibility for overall quality and costs of care for their patients, and each has a committed private payer partner and sufficient patient population to support comprehensive care coordination and performance measurement. The strategies they have adopted to develop internal capabilities and external partnerships can inform providers, payers, and policymakers about the process of ACO formation.

INTRODUCTION

Interest in accountable care organizations (ACOs) accelerated with the passage of the Affordable Care Act, which established ACOs as a new way of paying for health care provided to Medicare beneficiaries. The law also authorizes and funds the new Center for Medicare and Medicaid Innovation to establish pilot programs for the accelerated testing and dissemination of new payment models. Recognizing that new payment models are necessary and facing uncertainty about the relative benefits and risks of participation in federal programs, providers have begun exploring the possibility of becoming ACOs, and many are now

The mission of The Commonwealth Fund is to promote a high performance health care system. The Fund carries out this mandate by supporting independent research on health care issues and making grants to improve health care practice and policy. Support for this research was provided by The Commonwealth Fund. The views presented here are those of the authors and not necessarily those of The Commonwealth Fund or its directors, officers, or staff.

For more information about this study, please contact:

Elliott S. Fisher, M.D, M.P.H.
Director, Center for Population Health
The Dartmouth Institute for Health Policy and Clinical Practice
elliott.s.fisher@dartmouth.edu

To learn more about new publications when they become available, visit the Fund's Web site and register to receive Fund e-mail alerts.

Commonwealth Fund pub. 1571
Vol. 1

entering into contractual shared-savings agreements with private payers in preparation for participating in federal programs.

In an ACO, different health care providers agree to work together to be accountable for the quality, cost, and overall care of a group of patients such that the ACO: 1) can provide or manage the continuum of care for patients as a real or virtually integrated delivery system, 2) is of a sufficient size to support comprehensive performance measurement and expenditure projections, and 3) is capable of designing a provider–payer contract that supports prospective budget planning and internal distribution of shared savings.

ACOs are an increasingly prominent approach to payment and delivery system reform and have the potential to overcome several challenges confronting the U.S. health care system.[1] These challenges include limited capacity to deliver safe, reliable, and effective care; poorly coordinated patient care; and rising costs of care.[2] Underlying causes of these problems include a lack of clarity on the overall aims of health care; limited information on the risks and benefits of common treatments and the performance of providers; a fragmented and disorganized delivery system; lack of systemwide transparency; and a payment system that reinforces fragmentation and rewards higher volume and intensity of care.[3] ACOs offer the opportunity to address these underlying issues by clarifying aims, strengthening health information technology infrastructure to promote evidenced-based care and provide better access to data, creating integrated systems of care, and providing financial incentives for providers to coordinate care and improve population health.

The Engelberg Center for Health Care Reform at Brookings (Brookings) and The Dartmouth Institute for Health Policy and Clinical Practice (Dartmouth) began working together in 2007 to foster the early and successful adoption of ACOs to improve care quality and bend the health care cost curve. As part of this collaborative effort, an ACO Pilot Program was launched in 2009 to support select providers in creating ACOs with private payers in different markets across the country. Brookings–Dartmouth selected five pilot sites based on their previous experience managing financial risk, investment in integrated health information technology, and commitment to improvements in clinical care quality. The five pilot sites are: Carilion Clinic (Roanoke, Va.), HealthCare Partners (Torrance, Calif.), Monarch HealthCare (Irvine, Calif.), Norton Healthcare (Louisville, Ky.), and Tucson Medical Center (Tucson, Ariz.).

A series of case studies explores how four of these pilot sites developed the internal capability to be accountable for the quality and cost of care received by their patient populations.[4] The case studies describe the characteristics of the organizations, their rationale for choosing to pursue an ACO, steps taken to implement the model with a private payer, milestones achieved, and lessons learned to overcome challenges and facilitate improvements. These findings may be of interest to policymakers, provider organizations, and public and private payers interested in developing accountable care organizations.

ABOUT THE CASE STUDY SITES

The case studies describe the approach that four of the pilot sites followed in pursuing accountable care. These provider-led organizations, characterized by varying degrees of integration, have agreed to take responsibility for the overall quality and costs of care for their patients. Each has partnered with a committed private payer to develop the ACO contract, and each has a sufficient patient population to support comprehensive performance measurement across the continuum of care. At the time of our investigation, the sites were developing infrastructure to provide financial incentives to both improve care and achieve cost savings (Exhibit 1). The provider organizations and their initial payer-partners are:

HealthCare Partners (HCP), a large medical group and independent practice association (IPA) in Los Angeles, Calif. HCP is developing an ACO with Anthem in which it plans to provide care coordination for 50,000 Anthem preferred provider organization (PPO) members. The ACO is physician-owned and governed, and will include about 1,000 primary care

physicians and 1,700 specialists. Several factors contributed to the development of HCP's ACO, including stable leadership, consistent emphasis on prevention and health promotion, integrated health information technology (HIT) infrastructure, use of effective care coordination and care management, extensive experience taking on full risk capitation, and a solid payer–provider relationship (including active involvement in a joint implementation committee).

Monarch HealthCare, a large IPA in the southern, northern, and coastal regions of Orange County, Calif. Monarch is developing an ACO with Anthem, in which it plans to provide care coordination and care navigation support for 25,000 Anthem PPO members in Orange County.[5] The ACO is physician-owned and governed, and will include approximately 500 of its 760 primary care physicians. Several factors contributed to the development of Monarch's ACO, including strong executive leadership, trust and transparency in partnerships, extensive experience taking on full risk capitation, and a solid payer–provider relationship (including active involvement in a joint implementation committee).

Norton Healthcare, an integrated delivery system comprising five hospitals, one medical center, 12 immediate care centers, 18 specialty centers, and more than 90 physician practices in the greater Louisville, Ky., area. Norton, the dominant (45%) market shareholder in this region, is working with Humana to design an ACO that will serve roughly 7,000 Norton and Humana self-insured employees. The ACO is hospital-led and will involve 170 primary care physicians and 71 specialists. Several factors contributed to the development of Norton's ACO, including a strong payer–provider relationship (including a joint ACO implementation committee), a focus on performance measurement and reporting, an expanding HIT infrastructure, and ongoing progress toward building a culture of communication and collaboration within its integrated delivery system.

Tucson Medical Center (TMC), a locally governed, nonprofit, community-based acute care hospital system in Tucson, Ariz. TMC and its seven affiliated physician groups are working with United Healthcare to establish a virtually integrated ACO. A new legal entity, Southern Arizona Accountable Care

Exhibit 1. Overview of Brookings–Dartmouth ACO Pilot Site Provider Organizations

	HealthCare Partners	Monarch HealthCare	Norton Healthcare	Tucson Medical Center
Organizational structure	Medical group/ Independent practice association (IPA)	Independent practice association (IPA)	Integrated delivery system	Community-based hospital system
Legal structure	Limited liability company (LLC)	Professional corporation	Nonprofit, 501(c)(3)	Nonprofit, 501(c)(3)
Location	Torrance, Los Angeles County, Calif.	Irvine, Orange County, Calif.	Louisville, Jefferson County, Ky.	Tucson, Pima County, Ariz.
Patients served annually	675,000 commercial, Medicare Advantage, and Medicaid beneficiaries	178,300 commercial, Medicare Advantage, and Medicaid beneficiaries	1.4 million patient encounters, 444,261 unique patients	Approximately 35,000 inpatient and 175,000 outpatient visits
Physicians (employed)	200 primary care 500 specialists	40 multispecialty	475 primary care and specialists	16 primary care
Physicians (affiliated)	1,000 primary care 1,400 specialists	760 primary care 1,470 specialists	N/A	800 primary care and specialists
Hospitals owned	None, 20 affiliated hospitals	None, 18 affiliated hospitals	5 hospitals	1 acute care hospital and 1 mental health hospital

Source: Authors' analysis.

Organization (SAACO), united the hospital and physician groups to coordinate care and share savings. The ACO is hospital-based but physician-led. It will include two distinct patient populations covered by United Healthcare: approximately 8,000 Medicare Advantage beneficiaries and 23,000 commercial PPO members. Patients will be attributed to the approximately 90 physicians that voluntarily subscribed to the ACO. Factors contributing to the development of SAACO included strong local governance; institutional commitment to the ACO initiative; TMC's historical presence as a community-based hospital; and development of a management services organization that will provide the tools and resources to manage population health, improve care, and reduce costs.

THEMES AND INSIGHTS

Site visits were conducted with each of the four organizations in March and April 2011 to explore how organizations move from traditional care delivery systems to coordinated and integrated systems capable of delivering accountable care. This overview report describes: 1) the core characteristics of an ACO, 2) the organizational capabilities and structures that influence movement toward accountable care, 3) the stages of ACO evolution, and 4) common challenges and opportunities. Further details can be found in the four individual case studies of each organization.

Exhibit 2. ACO Core Characteristics

Key Elements	HealthCare Partners	Monarch HealthCare	Norton Healthcare	SAACO (TMC + physician groups)
Payer-Partner	Anthem	Anthem	Humana	United Healthcare
Legal entity	Existing parent organization structure (limited liability company)	Existing parent organization structure (professional corporation)	Existing parent organization structure (501(c)(3) nonprofit)	New limited liability company (SAACO, LLC)
Oversight of ACO formation	HCP-Monarch-Anthem Steering Committee with topic-specific subcommittees	HCP-Monarch-Anthem Steering Committee with topic-specific subcommittees	ACO Executive Steering Committee	ACO Physician Steering Committee and Executive Workgroup
Anticipated ACO governance	Existing governance structure	Existing governance structure	Existing governance structure	20% hospital, 80% physician representation on ACO Governance Board; ≥50% of Board will be MDs
Payment model	Shared savings, no risk in Year 1; transition to risk-bearing	Shared savings, no risk in Year 1; transition to risk-bearing	Shared savings, no risk in Year 1; transition to risk-bearing	Shared savings, no risk in Year 1; transition to risk-bearing
Patient attribution model	Anthem Episode Treatment Group Method and Brookings–Dartmouth Method	Anthem Episode Treatment Group Method and Brookings–Dartmouth Method	Brookings–Dartmouth Method	United Patient-Centered Medical Home Method and Brookings–Dartmouth Method
ACO patient population	~50,000 commercial PPO patients	25,000 commercial PPO patients	~7,000 commercially insured (ASO) Norton and Humana employees	~31,000 Medicare Advantage and commercial PPO patients
ACO physician population	PCPs: 1,000 Specialists: 1,700	PCPs: 500 Specialists: None	PCPs: 170 Specialists: 71	PCPs: 55 Specialists: 35

* ASO: Administrative services only, PPO: Preferred provider organization.
Source: Authors' analysis.

Core Characteristics of an ACO

The four ACO Pilot Program organizations partnered with three national commercial payers (Anthem, Humana, and United Healthcare) to create unique ACO structures (Exhibit 2). HCP, Monarch, and SAACO each attributed more than 25,000 patients (predominantly commercial PPO members) to their ACOs. In contrast, Norton's ACO was much smaller, targeting about 7,000 Norton and Humana employees. Each site included primary care providers in its ACO, and all but Monarch attributed patients to both primary care physicians and a subset of specialists. SAACO physicians voluntarily subscribed to the ACO, while physicians in the other organizations were assigned based on attributed patients. The HCP, Monarch, and Norton ACOs exist within the parent organizational structure. In contrast, SAACO is a new limited liability company that was formed to allow for distribution of shared savings. The payment model in each ACO is based on simple shared savings in year one, with increasing levels of risk in future years.

Organizational Capabilities and Structures That Influence Movement Toward Accountable Care

A model developed by Dartmouth and the University of California, Berkeley, School of Public Health proposes that organizations move toward accountable care for patients and populations through the interaction of four domains: 1) local social context; 2) provider organizational capabilities; 3) capabilities of national, state, and local partners and stakeholders; and 4) payer–provider relationships.

Local Social Context

Each of these four ACOs was formed within a supportive local social context, marked by collaborative relationships and shared values and aims among stakeholders. Market and regulatory issues shaped the structure of the ACOs.

Collaboration. ACO formation was characterized by collaboration across a diverse set of provider and payer organizations. This required the establishment of trust across participating entities. By effectively collaborating, these organizations were able to create or enhance care delivery structures, share clinical and financial data, and establish mutually beneficial ACO agreements.

> *The critical factor in the success of the ACO is going to be the collaborative relationship between the physicians and other health care providers, not only the hospitals, but the postacute [settings].*
>
> Tucson Medical Center leader

Shared values and aims. Collaboration was often initiated around the shared aim of providing high-quality care to patients in a cost-conscious manner. Many organizational leaders viewed the pursuit of an ACO as a natural extension of their ongoing efforts to improve the delivery of health care services.

Collaborators in these early ACO initiatives suggested that the current health care delivery system was not sustainable and recognized the need for reform. By virtue of being both early innovators of the ACO model and participants in the ACO Pilot Program, they influenced national health policy reforms by demonstrating the feasibility of the ACO model, shaping national legislation (i.e., the Affordable Care Act and ACO regulations), and offering insight into early implementation efforts.

Market and regulatory issues. During ACO formation, market and regulatory issues shaped the way that provider organizations developed their internal capabilities and external partnerships to deliver accountable care to patients. HCP and Monarch's existing organizational structures enabled them to receive and distribute shared savings among participating providers. Monarch was permitted to take on insurance risk contracts and pay providers on a capitated basis under state oversight, as a result of obtaining a Knox-Keene license as part of California's Knox-Keene Act.[6] Because of its business agreements with health plans regulated by the California Department of Managed Health Care, HCP did not need Knox-Keene licensure to take on insurance risk. In Tucson, regulatory issues were a determining factor in creating

SAACO as a separate legal entity that could receive and distribute shared savings among participating providers. Norton and Humana limited antitrust concerns by developing their ACO model for employed populations. Each contracted with five or more national payers in their market, although ACO arrangements were being created with only one of these payers.

Provider Organizational Capabilities

ACO formation drew upon the provider organizations' existing capabilities and, in many cases, required the development of new resources. Some of the capabilities that facilitated ACO development included their governance, leadership, and physician engagement as well as their HIT, care management, and care improvement capabilities.

Governance, leadership, and physician engagement. Having strong, committed executive leaders was critical to the development of ACOs at all four sites. Each organization created an executive steering committee, which played an important role in shaping the ACO. The stability of the executive leadership team at HCP, Monarch, and Norton enabled ACO formation. By contrast, at TMC the rehiring in 2007 of certain executives led to a new organizational outlook and the rebuilding of trust with physicians and other partners.

The four organizations made significant efforts to nurture relationships with physicians through communication efforts, by involving physicians in decision-making, and by promoting physician leaders. They used a variety of strategies to engage physicians in the ACO, such as emphasizing financial rewards, differentiating the ACO from models that physicians viewed as a threat to their independence and/or identity, highlighting the ACO's fit with professional values, and building on existing trustful relationships.

> *You have to have leadership from the top down for [the ACO] to be successful; it can't be a rogue group of people in the organization… it has to be part of the culture.*
>
> Monarch HealthCare leader

> *[An ACO] has to reach out to see who is truly at risk and then build wellness programs around them, and you can only do this if you collect data on your population.*
>
> HealthCare Partners leader

The relative prominence of these strategies depended on the preexisting degree of physician engagement and integration within each organization.

Capabilities to coordinate patient care. Some sites leveraged existing HIT, care management, and care improvement infrastructure for the ACO, while others expanded upon or created new programs to enhance their ability to effectively coordinate care (Exhibit 3).

HCP and Monarch leveraged strong existing HIT infrastructure, while Norton and TMC built on existing inpatient electronic health record (EHR) systems. HCP has the most evolved HIT infrastructure, including disease registries, electronic care management tools, and a proprietary data warehouse that aggregates financial and clinical data from different EHR systems and patient portals and also supports analytic and reporting capabilities. At the other end of the spectrum, Norton is moving from paper-based to electronic health records in its ambulatory settings to provide seamless integration with its hospital EHR system. Disease registries exist at HCP, Monarch, and Norton, while data warehouses exist at HCP and Monarch. Most physicians at HCP and Monarch are using EHRs. In contrast, EHRs are used in inpatient settings of TMC and Norton, with variable use in outpatient settings. None of the four organizations have full EHR interoperability across the care continuum.

The four organizations use several care management programs to improve the coordination and integration of care. All sites provide some care management services for high-risk patients. Yet, while HCP and Monarch have extensive programs for at-risk patients, Norton and TMC do not systematically identify these patients and have only limited care management experience. In addition, all sites use employed

hospitalists to ensure that patients receive appropriate inpatient care and to improve care coordination and care transitions with outpatient providers. HCP, Monarch, and Norton also offer disease management programs, care coordination and care transition programs, urgent care services, and programs to reduce hospital readmissions. HCP, Monarch, and TMC have home care services available for high-risk patients. Norton and TMC are developing care management tools, resources, and methods to expand their care management capabilities.

Leaders at the four sites made only limited mention of their quality improvement infrastructure during discussions on the formation and functioning of the ACOs. HCP, Norton, and TMC use standard improvement methods, including the Six Sigma, Lean, and Plan-Do-Study-Act approaches. HCP and

> *We've always been of the belief that somebody has to manage the entire coordination of the patient and it might as well be us. So get the full capitation, global capitation for full risk across all the entire spectrum of care, and then coordinate it and manage it.*
>
> HealthCare Partners leader

Exhibit 3. Key Organizational Capabilities That Facilitate Delivery of Accountable Care

Organizational capability	HealthCare Partners	Monarch HealthCare	Norton Healthcare	SAACO (TMC + physician groups)
Health information technology (HIT) capability	• EHR: Allscripts, Epic, NextGen, Touchworks • Built proprietary data warehouse • Predictive modeling to identify high-risk patients • Disease registries • Provider Information Portal to identify patients needing screening or follow-up	• EHR: Epic (partner hospitals), NextGen (affiliated IPA practices), Practice Connect • Data warehouse • Disease registries • HIE in development	• EHR: Epic • Data warehouse • Disease registries	• EHR: Epic (hospital), NextGen, AllScripts (affiliated physician groups) • HIE in development • MSO will support development of additional analytics
Care management strategies	• Disease management programs: asthma, CAD, CHF, COPD • Hospitalists • High-risk and complex care management programs • Home care available for high-risk patients • Urgent care centers • Post-discharge clinic	• Disease management programs: asthma, diabetes • Hospitalists • Case management for high-risk patients • Care navigators • Home care available for high-risk patients • Urgent care centers	• Disease management programs: CHF, COPD, diabetes • Hospitalists • Case management for high-risk patients • Inpatient care managers • Patient navigators for cancer patients to support care transitions • Immediate care centers	• Hospitalists • Multidisciplinary care teams • Home care available for high-risk patients • MSO will support development of care coordination programs
Quality and performance improvement strategies	• Six Sigma • Physician champions • Physician-level performance data reported internally	• Physician champions • Physician-level performance data reported internally	• Six Sigma • Physician champions • Physician-level performance data reported internally • Standardization	• Six Sigma, Lean, Plan-Do-Study-Act • Physicians champions

* CAD: coronary artery disease, CHF: congestive heart failure, COPD: chronic obstructive pulmonary disease, EHR: electronic health record, HIE: health information exchange, MSO: management services organization.
Source: Authors' analysis.

> *Enthusiasm around ACOs brought people together to rebuild a better delivery system to align hospitals, physicians, and insurers and create a new level of transparency.*
>
> Monarch HealthCare leader

Monarch capture and internally distribute physician-level performance data on clinical quality and patient experience measures, while Norton distributes physician-level data on select quality metrics. Each site recognizes the importance of having physician champions to help educate colleagues about care improvement initiatives.

Capabilities of Partners and Stakeholders

Each of the four organizations noted the importance of developing collaborative relationships and negotiating partnerships with providers and payers. In forming an ACO, the organizations drew on their experience in performance-based measurement, quality-based payments, and outcomes-based contracts.

Partnerships with stakeholders. Each organization focused on strengthening relationships with physician practices, hospitals, and payers. In the early stages of developing ACOs, the organizations capitalized on existing provider relationships, and some developed new partnerships with community health providers. Most have only limited experience integrating care with that provided by skilled nursing facilities, assisted living facilities, home health agencies, or behavioral health providers, and this may prove to be a challenge as they attempt to coordinate care and hold down costs. For each organization, payer–provider negotiations and compromise played a prominent role in the development of the ACO.

Experience with performance measurement and payment models. The four organizations have varying degrees of experience with performance measurement, quality-based incentives, outcomes-based contracts, and other reforms (Exhibit 4). HCP and Monarch have substantially more experience with quality-based payments and outcomes-based contracts, compared with Norton and TMC. Both HCP and Monarch participate in California's long-standing pay-for-performance programs, which tie physician compensation to performance on quality metrics and patients' experiences of care. Norton physicians receive payment incentives based on the quality of care delivery, but are not experienced with outcomes-based contracts.

The organizations participate in a variety of other payment or reform efforts that could influence ACO performance. HCP and Monarch have extensive experience with full-risk capitated payments for commercial, Medicare, and Medicaid patients. In contrast, Norton has limited experience with outcomes-based contracts or other delivery reform efforts. TMC participates in delivery reform efforts, including patient-centered medical homes, gain-sharing agreements, and service-line agreements. Monarch also participates in a bundled payment mechanism.

Payer–Provider Relationships

Through collaboration and compromise, the four provider organizations and their payer-partners developed ACO letters of agreement. These were based on simple shared savings in the first year, with increasing levels of risk in future years. Embedded in these agreements are strategies for patient attribution and engagement as well as performance measurement.

Patient attribution and engagement. As a requirement of the ACO Pilot Program, each site used the Brookings–Dartmouth attribution method, which assigns ACO patients prospectively based on historical care patterns, specifically the plurality of outpatient evaluation and management visits.[7] HCP and Monarch also used Anthem's Episode Treatment Group method,

> *[The ACO allowed us] to look at an alternative relationship with Humana [our payer-partner]. Let's focus on how we tie this into the things we are already doing for health reform preparation, for increasing value of patient care, [and] the clinical reengineering things that need to happen.*
>
> Norton Healthcare leader

Exhibit 4. Experience with Performance Measurement and Payment Models

Organizational capability	HealthCare Partners	Monarch HealthCare	Norton Healthcare	SAACO (TMC + physician groups)
Performance measurement and experience with quality-based payment	• Participates in California IHA P4P program • Physician compensation tied to performance on quality metrics, including patient experience of care	• Participates in California IHA P4P program • Physician compensation tied to performance on quality metrics, including patient experience of care	• Hospitals and employed physicians evaluated against a set of PQRI indicators (i.e., prevention/screening, safety, productivity, and readmissions) • Physician compensation tied to performance on quality metrics	• Publicly reports process-of-care measures, use of medical imaging, and patients' experiences of care (HCAHPS)
Experience with outcomes-based payment initiatives	• Very experienced taking on full-risk capitated contracts for commercial, Medicare, and Medicaid patients	• Very experienced taking on full-risk capitated contracts for commercial, Medicare, and Medicaid patients • Bundled payments	• Limited experience taking on full-risk capitated contracts	• Service-line agreement with specialists and sub-specialists • PCMH with United Healthcare • Gain-sharing contract between United Healthcare and affiliated physician practices

* HCAHPS: Hospital Consumer Assessment of Healthcare Providers and Systems, IHA: integrated healthcare association, P4P: pay for performance, PCMH: patient-centered medical home, PQRI: Physician Quality Reporting Initiative.
Source: Authors' analysis.

while TMC used the United Healthcare Patient-Centered Medical Home method.[8] It is unclear how patient turnover in commercially insured populations will affect ACOs. To better identify and understand the patient population, each organization analyzed two years of prior claims history from the payer on the attributed population. Norton will reassign patients annually while Monarch and HealthCare Partners will reassign patients semiannually to account for new entrants and exits from the ACO. Each organization planned to inform attributed patients with a notification letter.

ACO performance measurement. Performance measurement at each site will include the Brookings–Dartmouth starter set measures, with additional measures used by three of the four sites. HCP and Monarch included efficiency metrics and claims-based measures derived from the California Integrated Healthcare Association pay-for-performance program, while TMC included 35 measures of quality, efficiency, and "system-ness." To achieve shared savings, HCP and Monarch must first meet an established performance threshold based on a composite of quality measures; shared savings are then determined from efficiency metrics. Evidence of poor quality will also be a disqualifying factor for shared savings at TMC. Norton linked shared savings to performance on the starter set of measures.

Stages of ACO Evolution

At the time of the site visits, the four ACO Pilot Program organizations were in different stages of evolution and implementation. HCP and Monarch both had long-standing physician-led organizational structures, substantial experience managing global risk for HMO populations, and strong existing capabilities with respect to care management and HIT. In contrast, Norton and TMC had hospital-led organizational structures, minimal experience managing risk, and less developed care management and HIT capabilities.

Despite these differences, each organization had achieved significant milestones on its journey to

developing an ACO, including signing a formal letter of agreement with its payer-partner and establishing attribution methods to identify ACO patients.

- In August 2010, TMC was among the first organizations in the country to legally incorporate an ACO. Although the Southern Arizona ACO had not launched its care coordination and improvement tools at the time of the site visit, it had signed a letter of agreement with United Healthcare, identified its patient population, formed a physician-led steering committee with broad participation from a wide range of specialties and practices, subscribed an initial cohort of physicians, attributed United Healthcare's commercial PPO and Medicare Advantage populations to these physicians, and created the management services organization that would develop care management and HIT tools.
- In conjunction with Humana, Norton's ACO became operational at the beginning of August 2010 when both parties signed a letter of agreement. Other notable milestones include completing their attribution process, initiating their performance reporting process, amending base contracts, and developing their second performance year methodology.
- The HCP and Monarch ACOs began their development in early 2010 and both signed letters of agreement with Anthem in early 2011. An early milestone for both organizations and Anthem was the formation of a joint payer–provider ACO steering committee to guide the implementation process. HCP's other major milestones included receiving historical claims data from Anthem, and running an attribution method to identify ACO patients. Monarch's major milestones included the formation of a physician advisory board, hiring a senior vice president for accountable care, receiving historical claims data from Anthem, attributing patients to the ACO, and sending a beneficiary notification letter.

The organizations view the ACOs in different ways, although each considers it a mechanism to improve patient care and service delivery. HCP and Monarch both chose to develop ACOs to expand on their managed care capabilities and serve PPO clients. TMC approached the ACO as a mechanism to coordinate services across a virtually connected group of providers and develop potentially replicable tools to manage population health. As a direct result of the ACO, TMC partnered with United Healthcare to test and implement care delivery and management resources to improve patient and population health (through the management services organization). Norton fit the ACO model into its existing service delivery system, and is testing it with a relatively small (~7,000) set of Humana and Norton employees by adapting existing contractual relationships.

Challenges and Opportunities

The ACO Pilot Program organizations face several common challenges in developing the capabilities and structures to move toward accountable care for patients and populations. First, their care management capabilities are not fully developed across the continuum of care delivery settings. To build such capabilities, each organization is investing substantial resources to refine or develop new care management tools, resources, and methods. Second, the organizations have to build trusting relationships among physicians, payers, and other collaborative partners. Each is pursuing engagement strategies that are built around a shared vision of achieving the aims of an ACO. Finally, the organizations face a substantial challenge in navigating the legal and contractual arrangements associated with a new payment model. In particular, they have to develop data-sharing agreements, establish patient attribution methods, understand the patient population, and overcome regulatory hurdles. Building the capacity to exchange performance and financial data between providers and payers has proven particularly challenging, given time delays and technical difficulties. However, each payer–provider group has exchanged historical data and identified baseline

performance status and benchmarks that will enable them to gauge the success of their ACO initiatives.

At the time of the site visits, ACO development was in its infancy and each of these early innovators has substantial opportunities for growth. Their initial efforts to establish ACOs are focused on discrete populations of patients that represent a small proportion of the total number of patients seen by these organizations. Similarly, they involve only a portion of the total physician population—leaving room to expand the ACO provider network. Involvement of additional providers (e.g., medical specialists, behavioral health providers, and home health providers) and other care settings (e.g., nursing homes and assisted living facilities) could enhance the ability of the ACOs to manage patients' health and care. Finally, the organizations' initial ACO development efforts are focused on relationships with a single commercial payer. To further their efforts, each site is committed to pursuing a multipayer ACO and several intended to supplement their private-payer arrangements and apply to participate in a federal ACO initiative. The organizations may have greater ability to influence global costs as well as the quality of care in multipayer ACOs, in both commercial and federal initiatives.

CONCLUSION

The unique journeys taken by the Brookings–Dartmouth ACO Pilot Program sites highlight the core characteristics of the ACOs, the organizational capabilities and structures that influence movement toward accountable care, the stages of ACO evolution, and the approaches used to overcome challenges. These sites began their journeys with different organizational capabilities and strengths, particularly those related to care management, health information technology, and management of full financial risk. Common challenges in their development of ACOs included the need to: strengthen care management capabilities; build relationships with physicians, payers, and other partners; and develop a new kind of payment model. These challenges were overcome by strong executive leadership and governance, development of effective partnerships with payers and providers, and investment in HIT and care management capabilities. While the case studies focus on the early stages of ACO development, it remains to be seen whether the ACOs will improve the quality of care and reduce overall costs.

NOTES

1 E. S. Fisher and S. M. Shortell, "Accountable Care Organizations: Accountable for What, to Whom, and How," *Journal of the American Medical Association,* Oct. 20, 2010 304(15):1715–16.

2 K. E. Thorpe, "Factors Accounting for the Rise in Health Care Spending in the United States: The Role of Rising Disease Prevalence and Treatment Intensity," *Public Health,* Nov. 2006 120(11):1002–07; Institute of Medicine, Committee on Quality Health Care in America, *To Err Is Human: Building a Safer Health System* (Washington, D.C.: National Academies Press, 2000); E. A. McGlynn, S. M. Asch, J. Adams et al., "The Quality of Health Care Delivered to Adults in the United States," *New England Journal of Medicine,* Nov. 6, 2003, 349(19):1866–68; author reply 1866–68; Institute of Medicine, *Crossing the Quality Chasm: A New Health System for the 21st Century* (Washington, D.C.: National Academies Press, 2001); P. R. Orszag and P. Ellis, "The Challenge of Rising Health Care Costs—A View from the Congressional Budget Office," *New England Journal of Medicine,* Nov. 1, 2007 357(18):1793–95; and P. R. Orszag and P. Ellis, "Addressing Rising Health Care Costs—A View from the Congressional Budget Office," *New England Journal of Medicine,* Nov. 8, 2007 357(19):1885–87.

3 E. S. Fisher, D. O. Staiger, J. P. W. Bynum et al., "Creating Accountable Care Organizations: The Extended Hospital Medical Staff," *Health Affairs* Web Exclusive, Dec. 5, 2006, w44–w57.

4 Carilion Clinic was not included in the case study series because it had not formally established a relationship with a payer-partner during the selected time frame.

5 Anthem was Monarch's ACO payer partner at the time of the site visit. In October 2011, Anthem discontinued its ACO partnership when Monarch was acquired by OptumHealth, a subsidiary of UnitedHealth Group.

6 D. L. Roth and D. Reidy Kelch, *Making Sense of Managed Care Regulation in California* (Sacramento, Calif.: California HealthCare Foundation, Dec. 2001), p. 8.

7 J. P. W. Bynum, E. Bernal-Delgado, D. Gottlieb et al., "Assigning Ambulatory Patients and Their Physicians to Hospitals: A Method for Obtaining Population-Based Provider Performance Measurements," *Health Services Research,* Feb. 2007 42(1 Pt. 1):45–62.

8 Accountable Care Organization Learning Network, *Patient Attribution Best Practices from the Brookings-Dartmouth Pilot Sites,* http://www.acolearningnetwork.org/resources/patient-attribution, accessed Sept. 22, 2011.

About the Authors

Aricca D. Van Citters, M.S., is an independent consultant working on a variety of health care improvement projects. Ms. Van Citters has more than 12 years of experience conducting qualitative and quantitative process and outcomes evaluations in a variety of health care settings. Recent research projects focus on understanding the formation and performance of accountable care organizations; and understanding the factors that contribute to rapid improvement in hospital quality, costs, and mortality. She has provided coaching to hospitals around methods to improve the patient experience of care, and has provided technical assistance to states and organizations in implementing evidence-based mental health care for older adults. Ms. Van Citters received a master of science degree in evaluative clinical science from Dartmouth College.

Bridget K. Larson, M.S., is director, Health Policy Implementation at The Dartmouth Institute for Health Policy and Clinical Practice. Her work focuses on advancing payment and delivery system reform to improve population health. She leads the implementation and evaluation of the Accountable Care Organization (ACO) model through close collaboration with five national ACO pilot sites and the Brookings Institution. Previously, Ms. Larson worked at Dana-Farber Cancer Institute on developing best practice models for a new ambulatory cancer center. She has also held a variety of roles in the private sector in policy, regulatory affairs, and process development. Ms. Larson holds a master of science degree in health policy and management from the Harvard School of Public Health.

Kathleen L. Carluzzo is a health policy fellow at The Dartmouth Institute for Health Policy and Clinical Practice. She is currently pursuing a master of science degree in health care leadership from The Dartmouth Institute. Her research is focused on population health and Accountable Care Organization (ACO) evaluation. Previously, Ms. Carluzzo coordinated academic and community engagement in the Department of Family Medicine at Georgetown University. In that capacity, she gained significant experience in academic writing; grant writing, implementation, and reporting; and qualitative interviewing. Ms. Carluzzo holds a bachelor of arts degree in political science and in public and community service studies from Providence College.

Josette N. Gbemudu, M.Sc., is a senior policy analyst at the National Governors Association (NGA). In this capacity, she works with governors and their health policy staff to develop innovative solutions to state-specific issues around health system reform and transformation. Prior to joining the NGA, Ms. Gbemudu was a health policy fellow at The Dartmouth Institute for Health Policy and Clinical Practice, where she focused on the implementation of payment reform models and emerging accountable care organizations. Previously, she completed a postgraduate work placement in the government affairs division of Sanofi-Aventis UK and served as an associate at Avalere Health LLC. Ms. Gbemudu holds a master's degree in international health policy from the London School of Economics and Political Science.

Sara A. Kreindler, D.Phil., is a researcher with the Winnipeg Regional Health Authority, Canada, where she conducts mixed-methods research and knowledge syntheses to help inform regional decision-making. She is also assistant professor at the University of Manitoba Department of Community Health Sciences. A Rhodes Scholar, Dr. Kreindler obtained her doctorate in social psychology at Oxford University, and her expertise in social identity theory continues to inform her research. She was a 2010–11 Harkness Fellow in Health Care Policy and Practice.

Frances M. Wu, M.S., is a doctoral student in health services and policy analysis at the University of California, Berkeley, School of Public Health. She currently works as a student researcher on the National Study of Physician Organizations under Stephen M. Shortell, Ph.D., M.P.H., M.B.A. Prior to pursuing her doctorate, she worked as a health care consultant in New York City and as an analyst on quality improvement projects for Sutter Health, a Northern California-based health system. Ms. Wu holds a master of science degree in evaluative clinical sciences from Dartmouth College.

Stephen M. Shortell, Ph.D., M.P.H., M.B.A., is dean of the University of California, Berkeley, School of Public Health, and the Blue Cross of California Distinguished Professor of Health Policy and Management and Professor of Organization Behavior at the School of Public Health and Haas School of Business. A leading health care scholar, Dr. Shortell is the recipient of many awards, including the distinguished Baxter-Allegiance Prize for his contributions to health services research. An elected member of the Institute of Medicine of the National Academy of Sciences, he is preparing to launch the third round of the National Survey of Provider Organizations. He is also conducting research on the evaluation of quality improvement initiatives and on the implementation of evidence-based medicine practices in physician organizations.

Eugene C. Nelson, D.Sc., M.P.H., is director of Population Health and Measurement at The Dartmouth Institute for Health Policy and Clinical Practice. He is a national leader in health care improvement and the development and application of measures of quality, system performance, health outcomes, value, and patient and customer perceptions. Dr. Nelson has been a pioneer in bringing modern quality improvement thinking into the mainstream of health care. He helped launch the Institute for Healthcare Improvement and serves as a founding board member.

Elliott S. Fisher, M.D., M.P.H., is director of the Center for Population Health at The Dartmouth Institute for Health Policy and Clinical Practice. He is the director of the Dartmouth Atlas of Health Care and a member of the Institute of Medicine of the National Academy of Sciences. Dr. Fisher's research has focused on exploring the causes of the twofold differences in spending observed across U.S. regions and health care systems, on understanding the consequences of these variations for health and health care, and on the development and testing of approaches to performance measurement and payment reform that can support improvement. His current policy work has focused on advancing the concept of accountable care organizations (ACOs) and includes codirecting, with Mark McClellan, a joint Brookings–Dartmouth program to advance ACOs through research, coordination of public and private initiatives, and the creation of a learning collaborative that includes several pilot ACO sites across the United States.

Editorial support was provided by Martha Hostetter.


THE
COMMONWEALTH
FUND