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Tucson Medical Center: A Community Hospital Aligning Stakeholders for Accountable Care

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ABSTRACT: Tucson Medical Center, a community hospital in Tucson, Ariz., is one of the provider groups participating in the Brookings–Dartmouth ACO Pilot Program to implement accountable care organizations (ACOs), which assume responsibility for improving patient care and lowering total costs and, in turn, share in the savings achieved. This case study explores the characteristics of Tucson Medical Center and its partners, including affiliated physician groups and the insurer United Healthcare, that have contributed to the development of their ACO, including: the medical center's strong local governance, its institutional commitment to the ACO initiative, and its historical role as a community-based hospital. In addition, Tucson Medical Center's partners created a management services organization to provide the tools and resources needed to manage population health, improve care, and reduce costs.

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OVERVIEW

This case study examines the progress that Tucson Medical Center, a community hospital in Tucson, Arizona, has made in its efforts to become accountable for the quality and overall cost of care for its patient population. Tucson Medical Center is one of the provider groups participating in the Brookings–Dartmouth ACO Pilot Program that are profiled in the Commonwealth Fund case study series *Toward Accountable Care.*

Accountable care organizations (ACOs) have been proposed as a new delivery model to encourage clinicians, hospitals, and other health care organizations to work together to improve the quality of care and slow spending growth. The Affordable Care Act's ACO program is intended to promote better management and coordination of care for Medicare beneficiaries by enabling providers working in ACOs to share in any savings they achieve. However, there is little evidence from the field on how health care organizations progress from

traditional payment models toward the ACO model. To better understand this process, this case study documents Tucson Medical Center's journey to develop an ACO.

Tucson Medical Center (TMC) is a locally governed, nonprofit, community-based acute care hospital system with approximately 35,000 inpatient and 175,000 outpatient visits annually. TMC and its affiliated physician groups have worked with United Healthcare since 2008 to establish a virtually integrated ACO. A new legal entity, Southern Arizona Accountable Care Organization (SAACO), will unite the hospital and physician groups to coordinate care and share savings. The ACO will initially include two distinct patient populations covered by United Healthcare: approximately 8,000 Medicare Advantage beneficiaries and 23,000 commercial preferred provider organization (PPO) members. These patients will be identified by historical and current physician utilization patterns and attributed to the approximately 90 physicians subscribed to the ACO.

> *This is the first time in my career in medicine, since I started practicing in 1974, that I see things lining up that are the right thing … for the patient.*
>
> Palmer Evans, M.D., senior advisor, Tucson Medical Center

Despite being a hospital-based ACO, SAACO will be led by physicians; the hospital will have only 20 percent of the voting power on the governing board. In the early stages of implementation, TMC established an executive steering committee to formalize the ACO. This steering committee selected United Healthcare as a payer-partner, determined the initial ACO patient population, legally incorporated SAACO, and subscribed a cohort of physicians (Exhibit 1). At the time of the site visit, in April 2011, there were two classes of ACO members: independent physicians and hospital employees. A plan exists to extend ACO membership to ancillary staff. The letter of agreement between SAACO and United Healthcare stipulates a five-year agreement, with a simple shared savings model in the first two years and plans to share risk in subsequent years. TMC also plans to include additional payers, beginning with Medicare in 2012.

Exhibit 1. Tucson Medical Center ACO Milestones

2008	Began discussions on alignment with United Healthcare, which led to the ACO partnership
Aug. 2009	TMC selected as a Brookings–Dartmouth ACO Pilot Program site
Sept. 2009	TMC Board of Trustees approved participation in Brookings–Dartmouth ACO Pilot Program
Aug. 2010	Southern Arizona ACO (SAACO) established as a limited liability company (LLC)
Dec. 2010	MSO incorporated as Southern Arizona Care Enhancement Services, LLC (SACES); signed ACO letter of agreement with United
June 2011	Signed a statement of work charter for the MSO and publicly announced the agreement with Optum

Several factors have contributed to the successful development of SAACO, including TMC's strong local governance (it is locally owned), its institutional commitment to the initiative, its historical role as a community-based hospital, and its development of a management services organization to provide care management support and tools. The partners have had to overcome challenges associated with a somewhat risk-averse regulatory environment, providers' skepticism and reluctance to participate in the ACO, prior negative experience with high managed care penetration throughout the Tucson market, and the lack of a comprehensive care management strategy spanning the continuum of care.

This case study describes the progress that Tucson Medical Center and its affiliated physicians have made to become accountable for the overall quality and cost of care for its patient population. It focuses on how TMC embarked on its journey to 1) create the capabilities to be accountable for the quality and cost of care of its patient population through an accountable care organization (ACO), and 2) develop a contract with United Healthcare for this global quality/cost payment model. The case study outlines the key

characteristics of the organization and its partners, their rationale for choosing to develop an ACO, steps taken to implement the model, and lessons learned in overcoming challenges and facilitating early changes.

TUCSON MEDICAL CENTER: ORGANIZATIONAL CHARACTERISTICS

Tucson Medical Center opened in 1943, with funds from the people of Tucson to care for soldiers in the community during World War II. TMC's campus is now home to a federally qualified health center, Palo Verde Hospital for Behavioral Health Services, a hospice facility, cardiovascular center, and the region's first dedicated pediatric emergency department. Saguaro Physicians Group is owned by the hospital system and located nearby. TMC is proud to be both the last independent community hospital in its market, and the first to adopt the ACO model (Exhibit 2).

Local Market Competition

Tucson is a sprawling region of nearly 1 million residents with a highly competitive health care market dominated by four large, geographically dispersed health care systems: Carondelet Health System, Community Health System, Tucson Medical Center, and University Medical Center. With 28 percent of the market share, TMC is the second-largest of these systems (behind Carondelet). In the midst of increased competition for patients between 2003 and 2010, TMC diverted key resources from patient care toward maintaining a competitive edge. By 2010, this resource diversion prompted leaders at TMC and its associated physician practices to think about how to create a system that would improve population health, enhance the experience of care, and curb the per capita cost of care.

Exhibit 2. Core Characteristics of Tucson Medical Center

Type: Community-based hospital system
Legal structure: Nonprofit, 501(c)(3)
Location: Tucson, Pima County, Arizona
Patients served annually: 35,000 inpatient and 175,000 outpatient encounters
Physicians, employed: 16
Physicians, affiliated: 800
Hospitals owned: 1 acute care hospital and 1 mental health hospital
Electronic health record systems: Epic (hospital), Allscripts, NextGen (physician practices)

The Rise, Fall, and Aftermath of Managed Care in Tucson

The precipitous rise and fall of managed care in Arizona, and particularly in Tucson, is essential to understanding both the hesitation and readiness of TMC to pursue accountable care. In the early 1980s, as managed care gained traction in Tucson, TMC began to build an integrated delivery system. It purchased a multispecialty group practice, built a health plan, and by the early 1990s became a self-owned, integrated system.

TMC initially thrived in the managed care environment. It was the hub of a comprehensive, vertically integrated system, with an integrated commercial and Arizona Medicaid payer. It acquired a large employed-physician group, retirement community, assisted and independent living facilities, and home health programs, among others. This rapid growth created friction among the various entities in the system, and hospital and primary care practice staff felt marginalized by the leadership's focus on the health plan.

Study Methods

In April 2011, a team from The Dartmouth Institute for Health Policy and Clinical Practice conducted a three-day site visit at Tucson Medical Center, located in Tucson, Arizona. Information was collected through in-person and telephone interviews with executive and physician leaders at the hospital. Site evaluators also attended meetings of the ACO Steering Committee and Care Coordination Team. This case study was informed by a document review of Tucson Medical Center's data needs assessment, relevant presentations, public communication tools, and draft work plan with OptumInsight, a health care information, analytics, and consulting firm owned by United Health Group.

By 1998, the integrated system had started to disintegrate. TMC sold its managed care health plan to United Healthcare at a premium, and began to sell off other assets to streamline and sustain the system. In the mid-2000s, it bought El Dorado Hospital and closed it within two years, incurring huge losses. During this time, TMC's institutional partners, executive leaders, physicians, and employees felt alienated and undervalued by the health system's leaders. In order to cut costs, five executives were let go, some of whom were replaced by lower-ranked administrators. Those with an institutional memory of TMC prior to 2007 say that the organization had overextended itself, was rapidly losing money, and provided inefficient care. This history of disintegration and financial distress affected TMC in two key ways: it was severely limited by its financial condition, and it became a more nimble or streamlined organization. Both of these factors have influenced TMC's decision to reform and have affected its approach to doing so.

Rebuilding After Disintegration

TMC's Board of Trustees recognized the need to focus on delivering efficient and effective care within the hospital rather than diluting efforts across a broader range of services. In 2007, three of the five executives who had been let go were asked by the Trustees to return to lead TMC. Judy Rich, R.N., who had served TMC as chief operating officer from 2003 to 2005, returned as the chief executive officer; Donna Fulton, M.D., former medical director, returned as vice president for medical affairs and quality; and Palmer Evans, M.D., former vice president for quality and network management, was asked to return as the chief medical officer. Evans retired in June 2010, but remains involved in the ACO as a senior advisor to TMC. Upon their return, these executives sought to build relationships and improve communication with employees, as well as provide efficient and effective patient care.

Tucson Medical Center's current leaders have restored a significant level of trust with the employed and affiliated physicians. TMC rebranded itself as, "The hospital of choice for physicians who *have* a choice," according to Rich. Rich opened her doors to anyone in weekly "Java with Judy" sessions. "If you showed up, you got a free cup of coffee and my promise to listen," she said. "And that willingness to not defend, but to change and to be open, was a very important part of our building relationships." Evans interviewed many of the physicians and other leaders in the hospital. He found that they were frustrated by how the hospital had been run, but also committed to rebuilding the organization.

In order to engage staff across the hospital, employees were invited to participate in rewriting TMC's core values. In this process, they were asked, "Who are we?" and "What do we stand for?" The core values are now posted throughout the hospital (Exhibit 3).

Exhibit 3. Tucson Medical Center's Core Values

Compassion	Community	Dedication	Integrity
We have heart. We respect diversity and individuality. We honor body, mind, and spirit.	We are welcoming and friendly. We practice kindness in all our relationships. We reach out as teachers and as leaders.	We work hard for our patients and each other. We are committed to professionalism and excellence. We listen, we learn, we grow.	We tell the truth. We are responsible in how we use our resources. We have the courage to uphold our values.

ORIGINS OF ACCOUNTABLE CARE AT TUCSON MEDICAL CENTER

Between 2007 and 2010, a convergence of events and circumstances contributed to Tucson Medical Center's readiness to pursue accountable care. These included:

- *Concern for the path ahead:* TMC had been losing money for several years before Judy Rich became CEO in 2007, though its financial situation has since improved. The push to reform TMC's approach to health care delivery is driven by the belief that "we have a health care system that is overburdened, with no future success unless something pretty dramatic changes," Rich said.
- *Institutional leadership and support:* To create an ACO, Rich had to first gain approval from the Board of Trustees. In particular, she had to convince Trustees that preventing unnecessary hospital admissions or readmissions is the right thing to do for patients and would, in the long term, improve the bottom line.
- *Dedicated partners:* TMC has ardent support for the ACO model from two of its affiliated physician practice groups, New Pueblo Medicine and Saguaro Physicians Group, in addition to the specialists with whom they comanage a service line agreement. Existing relationships that TMC and/or its affiliated physicians have with United Healthcare through a gain-sharing agreement, health information exchange, and patient-centered medical home (PCMH) practices also contributed to all parties' readiness to pursue an ACO.

In addition to these factors, TMC engaged in several initiatives that helped prepare it for ACO implementation, including: building capability for care management, developing health information technology infrastructure, implementing performance improvement initiatives, and drawing from experience with risk-based contracts.

Capability to Care for a Population

Although Tucson Medical Center does not have a comprehensive care management program across the continuum of care, several efforts at the medical center and its affiliated physician groups contribute to their collective capability to care for a population of patients in the ACO. These include the Hospitals to Home program, PCMH practices, use of hospitalists, care coordination team, and multidisciplinary care teams.

Hospitals to Home: Post–Acute Care Coordination

The first step that TMC took toward accountable care was its attempt to provide managed care in the 1990s, when it piloted innovative programs to manage population health. Vestiges of these efforts remain, including the recently reinstated Hospitals to Home program for patients with congestive heart failure, which aims to ensure effective and efficient transitions from inpatient to outpatient care. TMC recognizes that hand-offs during inpatient care and transitions to outpatient care are two of the greatest opportunities to improve the quality and efficiency of care in the ACO.

Patient-Centered Medical Homes

In 2008–09, United Healthcare started seven PCMHs in Arizona, of which three are affiliated with TMC: New Pueblo Medicine, Saguaro Physicians Group, and Desert Star (part of the Arizona Community Physician network). These PCMHs were certified by the National Committee for Quality Assurance. The ACO leadership hopes to leverage experience and apply lessons learned from the PCMH pilot to improve population health management in other TMC-affiliated physician groups.

Use of Hospitalists

New Pueblo Medicine employs hospitalists to practice exclusively at TMC in order to improve the transitions between outpatient care and emergency or planned inpatient care, and to improve communication between primary care physicians, specialists, and New Pueblo hospitalists. In the ACO model, hospitalists will become part of the larger care team, helping to ensure patients receive appropriate care after discharge and avoid complications that might precipitate rehospitalization.

Care Coordination Team

In February 2011, TMC assembled and began hosting weekly meetings of a care coordination team, including physicians and nurses from each of the affiliated physician groups as well as representatives from Optum. The team is working to develop strategies to coordinate care across the sites participating in the ACO that focus on identifying high-risk patients, improving care transitions, and managing chronic disease. It has identified gaps in the following areas: data, access to care, resources, medical records, financing, and communication. The team then formulated a plan to address these gaps. For example, meeting to assess the usefulness of a care transitions tool to address gaps in services across providers.

Multidisciplinary Care Teams

New Pueblo Medicine has been a leader among independent practices in Tucson through its use of a multidisciplinary care team, including an audiologist, diabetic case manager, pharmacy technicians, and a registered nurse case manager. New Pueblo was able to invest in the care team as a part of its PCMH contract with United. New Pueblo providers use electronic health records to identify high-cost, high-utilization patients that could benefit from case management.

Developing an Effective Health Information Technology Infrastructure

Although adoption of health information technology is progressing within TMC and across its affiliated physician practices, there is currently no platform to connect their disparate EHR systems. This will be addressed in the health information exchange, described below.

Electronic Health Record Systems

Tucson Medical Center began working with Epic in 2002 to convert parts of its medical record system to an electronic platform. In 2009, TMC extended this system to its employed physicians, Saguaro Physicians Group, and in June 2010 it launched its electronic health record (EHR) system. The following year, the Health Information Management Systems Society (HIMSS) recognized TMC as having achieved the seventh and final stage of EHR adoption, placing it among the top 1 percent of more than 5,000 U.S. hospitals assessed through HIMSS' EHR Adoption Model, which evaluates the progress and impact of hospital EHR systems. Stage 7 hospitals are characterized as having a complete EHR; the ability to share data via standard electronic transactions with all entities in a health information exchange network; data warehousing; and data continuity across outpatient, ambulatory, and emergency department settings.

Although TMC and Saguaro Physicians Group have aligned EHR systems, TMC's contracted physician groups do not. New Pueblo Medicine uses the NextGen EHR product. Some of the Arizona Community Physicians use Allscripts, while others use paper-based medical records. These different systems are not capable of sharing data, which presents difficulty in coordinating services across the continuum of care.

Health Information Exchange

Executives at TMC and its affiliated physician practices are working to achieve interoperability through development of a Web-based health information exchange (HIE) platform. The HIE is being developed for SAACO by Optum.

A statewide HIE initiative funded by United Healthcare, area hospitals, and other investors is also in development. While TMC and the affiliated physicians support the statewide HIE initiative, the broad scope of the project has led to a slower pace of development and will yield a more generic product than what SAACO hopes to create with Optum. When the statewide HIE is launched, the SAACO-Optum HIE will link to it in order to maximize connectivity.

Performance Improvement Infrastructure

TMC and its clinical practice sites have undertaken performance improvement initiatives that have helped prepare them for ACO implementation.

Performance Improvement Methods

TMC uses a variety of methods to improve patient safety, care, and efficiency, including the Plan-Do-Study-Act, Lean, and Six Sigma methodologies. TMC's quality improvement specialists track and report data on individual clinicians' performance in

order to encourage compliance with care standards. For example, to address delays in surgery start times, they tracked the arrival time of surgeons and other members of the team to the operating room via ID badge access. The findings—showing which team members arrived late over several months—were presented to the surgery team, leading to improvement within one quarter.

Service Line Agreements

According to one affiliated specialist, TMC is seen as the "most physician-friendly [hospital] in town." This was attributed to the multiple service line agreements the hospital has established since 2007. These agreements define how the hospital and specialists will comanage the costs and quality of care for defined services, and may include the potential for financial incentives to physicians. The initial agreement with the Tucson Orthopedic Institute was followed by similar arrangements with other specialists, including those in neurology, neurosurgery, cardiology, and cardiovascular surgery.

The catalyst for the arrangement was one physician's realization that some medical supply vendors were earning more than many physicians, and that his practice ought to be able to reduce supply costs. The service line agreement has aligned incentives and improved communication between the specialist groups and Tucson Medical Center. It focuses on management of the service line, measured by the quality of care as well as costs. Negotiating the terms of the agreements took substantial effort, but TMC is already seeing financial returns. The hospital has expanded elements of the agreement to include reducing unnecessary costs and waste on implants, ensuring appropriate antibiotic usage, monitoring and improving patient satisfaction, and reducing wait times in the operating room, among others. TMC sees the agreement as a strategic approach to align incentives among the hospital and specialty providers and promote collaboration.

Experience with Risk-Based Contracts

TMC's history of taking on risk in the 1990s was both a positive and negative experience in preparing them to become accountable for care. At that time, TMC owned its own health plan, a large physician practice, and many ancillary services and operated under a risk-capitated, managed care approach. For long-time TMC leaders, this experience established an understanding of how to take on institutional risk. However, the managed care model was not successful, and specialists in particular were unhappy with the experience.

The SAACO model is intended to address some of the challenges that led to the downfall of managed care two decades prior, including the lack of health IT infrastructure and an overemphasis on cost containment at the expense of the quality of patient care. Those leading the SAACO initiative see potential solutions to these barriers as: developing the health information exchange, monitoring and providing individual physicians with their performance data, tracking and coordinating the care of high-risk and high-cost patients, and ensuring physician-led governance.

MOVING FORWARD WITH ACCOUNTABLE CARE

Before launching into an ACO contract, TMC participated in the Brookings–Dartmouth ACO Pilot Program, selected a payer-partner, and created a separate legal entity to enable accountability and receive and distribute shared savings.

Participation in the Brookings–Dartmouth ACO Pilot Program

Tucson Medical Center was selected in August 2009 as one of the first provider organizations to participate in the Brookings–Dartmouth ACO Pilot Program, in which they received technical support and guidance for advancing the model. One goal of the pilot program was to demonstrate to legislators that providers were interested in and capable of creating ACOs. The pilot sites' early achievements informed the establishment of the Medicare Shared Savings Program provision in the Affordable Care Act.

Despite the challenge of being an early adopter, TMC sees the ACO as an opportunity to redefine its approach to health care. "To walk away from that kind of opportunity, to me, is more irresponsible than to embrace it," said the hospital's CEO, Judy Rich.

Creation of a Separate Legal Entity

One of the requirements for participation in the pilot program was the ability to receive and distribute shared savings. Tucson Medical Center created a separate legal entity, the Southern Arizona Accountable Care Organization, LLC (SAACO), to enable receipt and distribution of shared savings among the members of the hospital system and several independent practices. SAACO carries out the core functions of contracting for shared savings, distributing shared savings, and monitoring physician performance and quality. TMC associate general counsel John Friend said, "The ACO is linked to possible (federal) regulatory waivers that encourage initiatives involving alignment and collaboration that might have been avoided as too risky or difficult just a handful of years ago." The ACO initiative at TMC has strong support from its legal staff, which ensures that the institution proceeds appropriately.

Establishing the Payer–Provider Partnership

Both TMC and United Healthcare wanted to establish an ACO and lead health care reform in the Tucson area. Participants in SAACO were confident that United Healthcare would be a good partner based on prior experience with the insurer in the PCMH initiative and its local investment in health information technology. Together, they created a shared vision for the future and a strategy for collaboration.

Tucson Medical Center's market is divided among several payers, with United Healthcare and BlueCross/BlueShield each representing approximately one-third of the preferred provider organization (PPO) population. Aetna, Cigna, HealthNet, and others compose the final third of the market. After the pilot's first year, all of the major payers have expressed interest in participating in the ACO model. Some of these insurers are piloting ACOs in other regions of the country, but to date no ACO or ACO-like arrangements have emerged elsewhere in Southern Arizona.

CREATING THE INFRASTRUCTURE TO BECOME ACCOUNTABLE FOR CARE

Key components relevant to the ACO's infrastructure include its organizational structure, its governance and leadership, the terms of the contract, payment model, patient attribution, patient engagement and notification strategy, and approach to physician engagement (Exhibit 4).

Structure of the ACO

TMC and its partners created a separate business entity, a management services organization (MSO), to develop and test the clinical and administrative tools required for the ACO to function. According to Evans, "The main function of the ACO will be contracting, distribution of funds, and governance…. The MSO [will be] the business."

Arizona does not have a statewide regulatory environment, such as that found in California, that permits provider organizations to bear financial risk and manage care. Therefore, it was necessary for TMC and its collaborators to have a separate legal entity to receive and distribute shared savings. TMC created a limited liability company (LLC) in August 2010, the Southern Arizona Accountable Care Organization (SAACO).

Although SAACO is a hospital-based ACO, it is physician-led. The LLC enables physicians from different groups to unite in a single organization via subscription or membership to that ACO. Because the physician

Exhibit 4. Core Characteristics of SAACO

Payer-partner: United Healthcare
Legal entity: New limited liability company (LLC)
Oversight of ACO formation: ACO physician steering committee and executive workgroup
Payment model: Shared savings, no risk in Year 1; transition to risk-bearing
Patient attribution model: United Healthcare Patient-Centered Medical Home Method and Brookings–Dartmouth Method
ACO patient population: 8,000 Medicare Advantage beneficiaries and 23,000 PPO patients covered by United Healthcare
ACO physician population: 55 PCPs, 35 specialists

groups retain their individual identities, the organization sees this as a "virtual ACO." Members of SAACO fall into three classes:

- A Class (ancillary services), including providers at skilled nursing facilities and medical suppliers. These were not subscribed at the time of the site visit, but may be in the future;
- H Class (hospital), such as Tucson Medical Center; and
- P Class (physicians), including specialty and primary care.

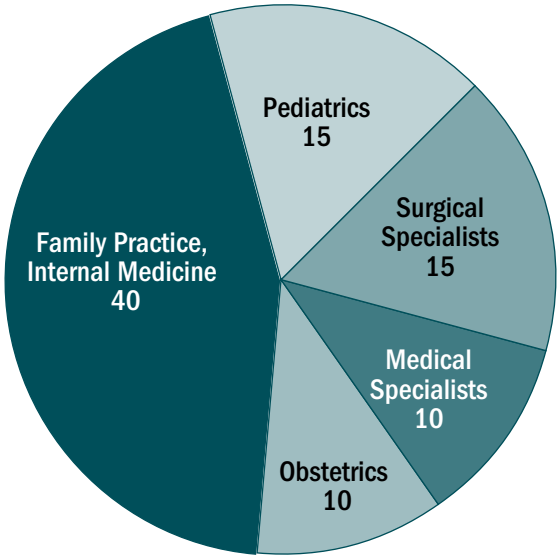
The P class is the largest group, and is dominated by primary care physicians. In early 2011, leaders in SAACO projected that approximately 90 physicians would subscribe to the ACO (Exhibit 5).

In the first year of implementation, the ACO will serve two distinct patient populations that are attributed to ACO-subscribed physicians: 1) Medicare Advantage beneficiaries (covered by United Healthcare); and 2) United Healthcare's commercial PPO population. The ACO is populated with patients based on their historical visits to primary care physicians. The patient attribution methodology is described below.

Governance and Leadership

Three groups contribute to the development and governance of the ACO: a workgroup, a physician steering committee, and an executive governing board. The ACO workgroup has an open structure and generally comprises physicians and executives of stakeholder groups, including TMC, affiliated practices, United Healthcare, and Optum. The workgroup formed to launch the ACO and develop the initial structure of the ACO prior to the election of the executive governing board. The physician steering committee is shaping the structure of the ACO, building consensus on the clinical tools needed for it, determining a work plan with Optum, and identifying other physicians for participation. These physician champions are essential because they represent the needs and interests of providers as the organization takes shape, and are able to draw additional physicians into the ACO.

Exhibit 5. Projected Distribution of Physician Subscription to the ACO



Note: Number by specialty; n= 90 physicians.

When the ACO is fully operational, the Executive Governing Board will be elected by the subscribed members and drawn from each of the three subscriber classes (ancillary services, the hospital, and physicians). Based on the target size for the board, the hospital will have a number of participants relative to its proportional equity interest in the organization. While the equity balance has not been finalized, it is expected that within this ACO model the hospital will have 20 percent representation and physicians or executive representatives of physician groups will compose the other 80 percent. At least half of the board members will be physicians. Once established, the Executive Governing Board will have decision-making power, determine the distribution of shared savings, and negotiate contracts. Ensuring that physicians comprised greater than 50 percent of the governing board was essential for building trust and engagement in advancing the ACO initiative in Tucson.

Terms of Contract

Rather than a single ACO contract between the provider and payer organizations, SAACO's early structure involves several contracts. They are being executed in the following order:

1. *The ACO-Physician Contracts* are executed with independent physicians or physician groups. These contracts were finalized in the summer of 2011. At the time of the site visit, SAACO anticipated that it would have roughly 90 physicians contracted, though it has raised its estimate since then.
2. *The ACO-Payer Letter of Agreement* outlines the high-level and preliminary terms of the arrangement, such as the defined patient population, attribution methodology, distributive theory for shared savings, and length of the agreement.
3. *The Comprehensive ACO-Payer Contract* is a significantly more detailed determination of the terms of the arrangement stated in the letter of agreement.

In December 2010, SAACO and United Healthcare signed a letter of agreement (LOA) for the Medicare Advantage population. The six-page LOA is a binding agreement that outlines the core details of the partnership, including the distribution of shared savings and parameters of the patient population. The LOA for the Medicare Advantage population was then restated in a comprehensive LOA, which also included United Healthcare's commercial PPO population.

Once the contract template was approved within United Healthcare, it was finalized for use in the PPO contract; this was executed in the third quarter of 2011. The ACO steering committee anticipates that physicians will be eligible to subscribe to the ACO in early 2012.

Payment Model

Although SAACO is not currently taking on risk in its arrangements with United Healthcare, it is working to be "risk-capable." As it gains experience as an ACO, it is likely to take on risk in the third year of implementation. In the first two years, SAACO and United will work under a shared savings agreement wherein roughly 20 percent of SAACO's portion of the savings is distributed to the hospital, 65 percent is distributed to physicians, and the remainder is used to meet efficiency standards, such as provider internal efficiency goals. TMC has created an algorithm to calculate how shared savings are distributed within the hospital. Physicians are eligible for bonus payments through the ACO based on panel size, performance on quality metrics, extent of EHR adoption, and risk-adjustment factor (an adjustment for the severity of a patient's illness). The final risk-sharing arrangement with United, the distributive model for sharing savings with physicians, and the budget for the initiative are under development and will be part of the final agreements that will launch the ACO.

The distribution of shared savings among ACO participating providers will be determined by their performance on 35 objective measures of quality, efficiency, and "system-ness." Evidence of poor quality will be a disqualifying factor. SAACO steering committee members anticipate that this will appeal to physicians' naturally competitive spirit and help spur improvements.

Patient Attribution

As stated above, the SAACO pilot will include two patient populations covered by United Healthcare: Medicare Advantage beneficiaries and the commercial PPO population. United is currently comparing the Brookings–Dartmouth attribution method with several methods they use internally, including its PCMH method. The Brookings–Dartmouth methodology assigns patients prospectively based on historical care patterns, specifically the plurality of outpatient evaluation and management visits. The PCMH attribution method assigns patients based on how recently they have had outpatient primary care visits or pharmacy claims. United Healthcare ran the Brookings–Dartmouth attribution method for the purposes of the pilot, and assigned approximately 8,000 Medicare Advantage patients and 23,000 commercial PPO patients to participating physicians.

Patient Engagement and Notification

As a community hospital, Tucson Medical Center and its affiliated physicians understand the importance of patient engagement. Still, at the time of the case

> *Physicians, when they are at risk and doing their own thing, do a lot better. They're much more creative, they're much more innovative, and they are definitely more entrepreneurial.*
>
> Palmer Evans, M.D., senior advisor, Tucson Medical Center

study, SAACO did not have explicit plans to include patients in the ACO Executive Governing Board. The approximately 31,000 patients will be notified of their inclusion in the ACO once the attribution methodology is finalized. The SAACO steering committee has concluded that it is most appropriate for notification of assignment to come from a patient's individual physician, rather than the health plan.

Physician Engagement

As a result of TMC's disruptive experience with integrated care, the hospital is not focused on increasing its number of employed physicians, nor does it have the capability to buy physician practices as a large-scale alignment strategy. Instead, the hospital has an open arrangement with physician groups, including New Pueblo Medicine and Arizona Community Physicians, which tend to remain loyal to it. Although the hospital employs 16 primary care physicians at Saguaro Physicians Group, the majority of the roughly 800 physicians affiliated with TMC are compensated on a fee-for-service basis. In the ACO model, physicians would not be employed by the hospital, but rather brought together through participation in its governance and initiatives, such as performance-based shared savings, meaningful use of health IT, and integrated clinical practice. SAACO will likely include primary care physician groups from New Pueblo Medicine, Saguaro Physicians Group, and Arizona Community Physicians as well as independent physicians. It will also include physicians from several specialty groups.

The SAACO model relies on physicians to voluntarily subscribe to the ACO. "If you're going to build a relationship with physicians, it's got to be a fair relationship and it's got to be on respect and trust. It can't be on a financial basis," said Evans. "In order to get trust and respect, you have to be able to treat them as equals, as partners, not as customers." SAACO builds physician engagement and trust in the ACO model by developing physician champions to lead the model and recruit new participants.

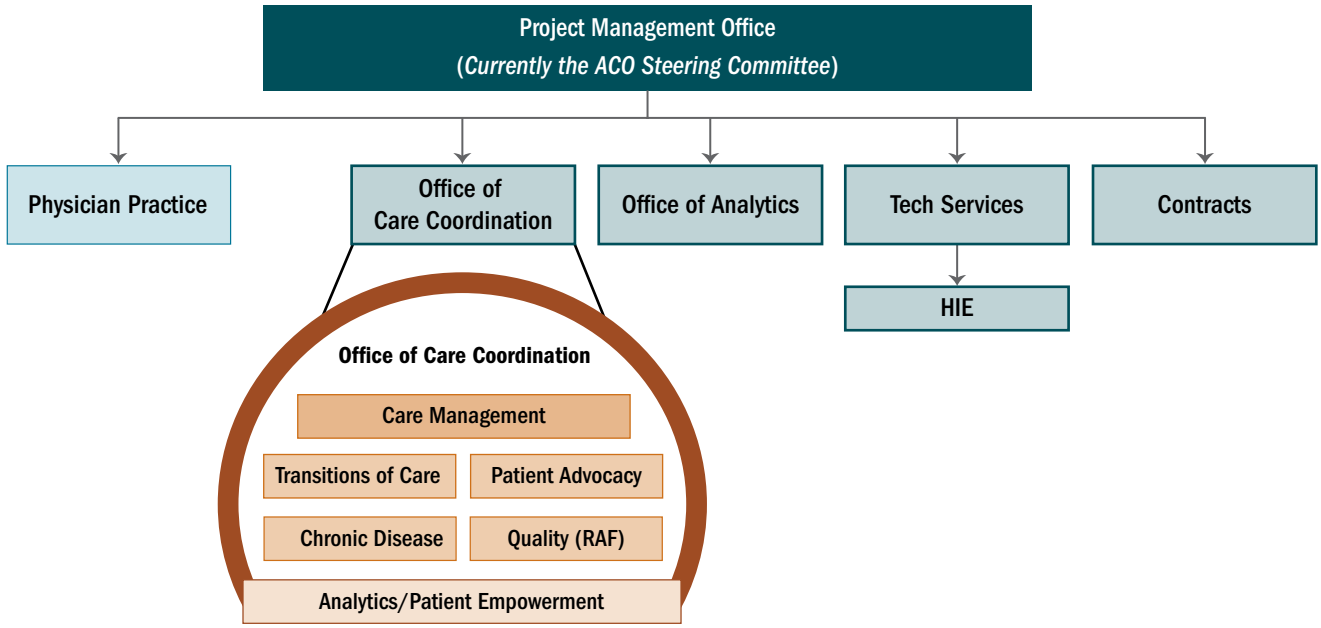
Evans advocated for the ACO to be physician-led and broadly supported by both specialists and primary care physicians. He attributes its initial success to TMC's expertise and strong relationships with physician leaders.

DRIVING ACO PROGRESS: THE MANAGEMENT SERVICES ORGANIZATION

TMC and its affiliated physician groups created a management services organization (MSO) as a business entity to develop and test ACO-specific clinical and administrative tools. The MSO engaged Optum to contribute clinical, administrative, and technical support to the enterprise. In December 2010, the MSO was incorporated as Southern Arizona Care Enhancement Services, LLC (SACES). SACES will provide physician practices with tools and resources to support the coordination of care (e.g. technical expertise and support, data collection infrastructure), as well as data and analysis to help physicians make better decisions. The care coordination team has identified opportunities for care management and is working to develop tools in the MSO. The proposed structure of the MSO is shown in Exhibit 6.

To determine the clinical and cost effectiveness of care, SAACO must apply valid, meaningful measures that yield actionable data for participating physicians. The initial measures they will track are those used for the Brookings–Dartmouth ACO Pilot Program and the patient experience measures collected through the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey.

Exhibit 6. Proposed Organizational Structure of the MSO



Notes: HIE = health information exchange; RAF = risk adjustment factor.

MONITORING PROGRESS TOWARD ACCOUNTABLE CARE

Performance Measurement

ACO performance measurement specifications were not finalized when the pilot began. However, a Performance Measurement Technical Workgroup was formed with representatives from each participating payer and provider group. Through the workgroup, United Healthcare, Tucson Medical Center, and its affiliated physicians have provided input on the feasibility of collecting various measures and vetted them on their usefulness and relevance to the quality of care. The initial ACO measures fall into three categories: 1) a claims-based starter set (including all-cause readmission rates and utilization measures); 2) clinically enriched measures (which rely on data extracted from clinical data systems, as well as administrative claims data); and 3) patient-reported measures (including patients' experiences of care and patient-reported outcomes), which have not yet been finalized (Exhibits 7 and 8). Participants in SAACO are working closely with United Healthcare to monitor performance on these measures. Since June 2009, United Healthcare has issued weekly claims data transfers to SAACO to facilitate timely data monitoring. This includes hospital admissions and emergency department utilization data for the PCMH population. Like other Brookings–Dartmouth ACO pilot sites, SAACO developed measures in addition to those identified in the starter set.

Performance Reporting

Like most U.S. hospitals, Tucson Medical Center publicly reports performance data to the Centers for Medicare and Medicaid Services on process-of-care, use of medical imaging, and hospitalized patients' experiences of care (based on the HCAHPS survey). The HCAHPS is administered to a sample of all patients, but results are publicly reported for Medicare beneficiaries only. TMC also has the capability to pull reports using their EHR for internal reporting on various measures.

> *The MSO becomes the engine—the data, the computers, the whole thing that makes it work.*
>
> John Friend, associate general counsel, Tucson Medical Center

Exhibit 7. Brookings–Dartmouth ACO Pilot Site Starter Set Measures

Priority area	Starter set measures	NQF number
Overuse	Low back pain: use of imaging studies	52
	Appropriate testing for children with pharyngitis	2
	Avoidance of antibiotic treatment in adults with acute bronchitis	52
	Appropriate treatment for children with upper respiratory infection (URI)	69
Population health	Breast cancer screening	31
	Cervical cancer screening	32
	Diabetes: HbA1c management (testing)	57
	Diabetes: Cholesterol management (testing)	63
	Cholesterol management for patients with cardiovascular conditions (testing)	n/a
	Use of appropriate medications for people with asthma	36
	Persistence of beta-blocker treatment after a heart attack	71
Safety	Annual monitoring for patients on persistent medications	21

* NQF = National Quality Forum, which endorses national quality performance measures.
Source: Measures are drawn from the National Quality Forum list of endorsed performance measures (Available at: http://www.qualityforum.org/Measures_List.aspx).

Exhibit 8. Brookings–Dartmouth ACO Pilot Site Clinically Enriched Performance Measures

Priority area	Clinically enriched measures	NQF number
Coronary artery disease	Cholesterol management for patients with cardiovascular conditions	n/a
	ACE inhibitor or ARB therapy**	66
Diabetes	Low density lipoprotein (LDL-C) control in diabetes mellitus	64
	HbA1c poor control in diabetes mellitus	59
	HbA1c control (<8.0%)	575
	High blood pressure control in diabetes mellitus	61
	Kidney disease screen	62
Hypertension	Blood pressure control	18
Pediatrics	Childhood immunization status	38
	Immunization for adolescents	n/a
Preventive care	Colorectal cancer screening	34

** This measure was drawn from the Physician Consortium for Performance Improvement metrics. All other measures in this table are from the Healthcare Effectiveness Data and Information Set (HEDIS).
Source: Measures are drawn from the National Quality Forum list of endorsed performance measures (Available at: http://www.qualityforum.org/Measures_List.aspx).

LESSONS LEARNED

Although TMC has made significant strides in implementing the ACO, it has encountered a range of challenges. Its experience in overcoming these challenges and building on its early successes offers lessons for other health care organizations considering development of an ACO.

Challenges

Developing a Care Management Infrastructure

Although TMC and its clinical partners operate several successful care management initiatives, their efforts have not been linked in a systematic way. Some physicians—recalling Tucson's negative experience with

managed care in the 1990s—are resistant to the ACO's attempts to promote integrated, cooperative care networks.

TMC has encouraged physicians to participate in the ACO and hopes that it will promote integration across providers. The functional requirements for care management are met by partnering with Optum to develop and test the tools necessary to run the ACO. For example, Optum's ImpactPro software uses predictive modeling to identify high-risk, high-cost patients for case management.

Adjusting to a New Paradigm for Hospital Care

In 2007, TMC's new executive leadership made an institutional commitment to change the way it does business. The leaders were driven by the belief that, if the hospital focused on patients and aligned incentives across providers, it would become the lowest-cost and highest-quality provider in the region. Forming an ACO required the hospital to adopt a new paradigm of engaging with community providers and coordinating care.

Overcoming Legal Barriers

Arizona does not have a statewide regulatory environment, such as that found in California, to structure and define how provider organizations take on risk and manage care. Therefore, a significant amount of the energy TMC has invested in developing an ACO has been spent resolving these issues. Tucson's competitive market minimizes antitrust concerns related to coordinating care among providers that exist in other markets. Members of the TMC legal team have played a large role in advancing SAACO by traveling to Washington, D.C., to appear before the Federal Trade Commission, Office of the Inspector General, and the Centers for Medicare and Medicaid Services.

Engaging Physicians

The SAACO model is designed to engage physicians by actively subscribing individual physicians, practices, and groups. This presented a challenge, since prospective participants were not associated under a single entity that could make decisions or contract on their behalf. Still, this subscription model is a strength of SAACO's approach, since all of the participating providers are engaged by choice, rather than requirement. The core leadership of SAACO seeks to build trust primarily by leveraging peer leadership among physicians to build interest and engagement.

Success Factors in Early Stages of ACO Development

The factors that appear to have been key to the successful initial development of an ACO at Tucson Medical Center include:

- discovering mutually beneficial relationships among providers and payers,
- distinguishing ACOs from managed care, and
- developing a management services organization.

Discovering Mutually Beneficial Relationships

United Healthcare and TMC decided to collaborate when they realized they shared common challenges. United was eager to work with a system of physicians and a hospital that were looking to improve quality, increase efficiency, and reduce costs. TMC was eager to have the support of a payer that could partner with them in reform efforts.

Physicians were engaged in the effort under similar circumstances. By discussing their respective challenges and aspirations, the hospital and physician groups came to a common understanding from which the service line agreement was born. This established an expectation of shared decision-making in joint initiatives, which has carried over to the ACO. Although the ACO is a hospital-based model, it will be physician-led. Physicians will have the majority share in the decision-making in the ACO, including the distribution of shared savings.

> *We share a vision now . . . . It's not about somebody getting rich or doing better than they did before—it's really about trying to stabilize in very uncertain times.*
>
> John Friend, associate general counsel, Tucson Medical Center

Distinguishing ACOs from Managed Care

A key factor in the potential success of SAACO will be its ability to articulate to stakeholders (e.g., physicians and patients) the differences between accountable care and the managed care model of the 1990s. The ACO will differ from managed care in that it will: monitor and provide individual performance data to physicians, coordinate care of high-risk and high-cost patients, and ensure physician-led governance. In contrast, the failure of managed care in Tucson was marked by an overemphasis on utilization management; an incentive structure that did not take into account physician performance; a system driven by insurers; an inability to collect, analyze, and report performance data; and a lack of timely data to affect change. SAACO leaders are relying on unifying care management and analytic tools within the ACO model to gain the support of independent physicians who may be wary of the ACO because of their prior experience with managed care. Such tools include the health information exchange and other applications to be developed through partnership with Optum.

Developing a Management Services Organization

Leaders at TMC readily acknowledge that a management services organization is not essential to operating an ACO. They do, however, feel it is essential for the functioning of SAACO. According to Tracy Nuckolls, chief legal officer, "Not every model has to have an MSO, but every model has to have all of the functions that an MSO would provide." The MSO will not be involved in the distribution of shared savings or directly interact with physicians and patients. However, it will serve the ACO in fulfilling the duties that result in managing population health, improving care, and reducing costs. Developing the MSO externally precludes the ACO from becoming a power structure that would override the autonomy of independent physician practices.

The MSO is a prime business opportunity for SAACO and United Health Group and its business units, United Healthcare and Optum. If they succeed in improving the quality of care, both SAACO and United Healthcare may see increased market share led by patient preference. SAACO will benefit from the tailored tools developed with Optum through the MSO. United Health Group will benefit by leveraging Optum to increase performance and lower costs, which will strengthen its competitiveness in Tucson and may result in a nationally replicable model.

> *[The ACO] puts the management back where it belongs, [with the physicians,] but it also provides better tools so that the management is enhanced and will come much easier.*
>
> Physician, ACO Steering Committee Member, Tucson Medical Center

CONCLUSION

Despite the challenges, Tucson Medical Center made a strong institutional commitment to begin the journey toward accountable care. In developing the ACO, TMC expanded its care management infrastructure and created a virtually integrated network across the continuum of care. As the ACO evolves, TMC will need to address existing and potential challenges, including: a risk-averse regulatory environment, provider skepticism and reluctance to participate in the ACO, prior negative experiences with high managed care penetration throughout the Tucson market, and a limited comprehensive care management strategy. It has built readiness for ACO implementation through participation in prior reform initiatives, significant commitment to build HIT infrastructure, and creation of a management services organization to provide administrative and clinical tools. Leveraging its strengths will enable TMC to advance toward achieving the triple aim of providing better care for individuals, improving the health of populations, and reducing per-capita costs.

For a complete list of case studies in this series, along with an introduction and description of methods, see http://www.commonwealthfund.org/Publications/Case-Studies/2012/Jan/Four-Health-Care-Organizations.aspx.

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