Accountable Care Organization Readiness and Academic Medical Centers
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Abstract
As academic medical centers (AMCs) consider becoming accountable care organizations (ACOs) under Medicare, they must assess their readiness for this transition. Of the 253 Medicare ACOs prior to 2014, 51 (20%) are AMCs. Three critical components of ACO readiness are institutional and ACO structure, leadership, and governance; robust information technology and analytic systems; and care coordination and management to improve care delivery and health at the population level. All of these must be viewed through the lens of unique AMC mission-driven goals. There is clear benefit to developing and maintaining a centralized internal leadership when it comes to driving change within an ACO, yet there is also the need for broad stakeholder involvement. Other important structural features are an extensive primary care foundation; concomitant operation of a managed care plan or risk-bearing entity; or maintaining a close relationship with post-acute-care or skilled nursing facilities, which provide valuable expertise in coordinating care across the continuum. ACOs also require comprehensive and integrated data and analytic systems that provide meaningful population data to inform care teams in real time, promote quality improvement, and monitor spending trends. AMCs will require proven care coordination and management strategies within a population health framework and deployment of an innovative workforce. AMC core functions of providing high-quality subspecialty and primary care, generating new knowledge, and training future health care leaders can be well aligned with a transition to an ACO model. Further study of results from Medicare-related ACO programs and commercial ACOs will help define best practices.

An accountable care organization (ACO) is a care delivery model in which a group of providers is responsible for the quality, cost, and overall care for a population of patients. The Medicare Shared Savings Program (MSSP), created through the Patient Protection and Affordable Care Act (ACA), is an ACO model for Medicare beneficiaries, and if quality targets are met while reducing the cost of care versus benchmarks, the ACO may be eligible to receive shared savings. The Pioneer ACO program also relates to Medicare beneficiaries, but was tailored for entities more prepared to assume risk.

The ACO was modeled on the Physician Group Practice (PGP) Demonstration which was a five-year program that began with 10 entities in 2005.

Academic medical centers (AMCs) have unique challenges, often cultural and financial, as well as opportunities when it comes to participating in such programs, but many will embrace the ACO model to accelerate their transformation efforts. Of the 253 Medicare ACOs prior to 2014, 51 are AMCs (11 Pioneer and 40 MSSP). In addition, of the 10 sites in the PGP Demonstration, a precursor program to the MSSP, 4 were AMCs. Hundreds of other commercial ACO-like arrangements have been developed, but for this article, we have chosen to focus on Medicare ACO participation because these agreements are generally uniform in terms of contracting requirements. AMCs and other providers of health care are seeking to determine readiness for participation, and various preparedness surveys aim to assess an organization’s capacity to succeed in an ACO model, yet ACO development remains a relatively new endeavor. Therefore, there is neither a roadmap nor clear outcomes correlated with baseline survey performance. In this article, we identify a few key domains of readiness for one to adopt the ACO model as well as potential strategies, including those currently employed by some AMCs, for achieving success in transitioning to an ACO.

Identifying Three Key Domains for ACO Readiness
To determine the domains for ACO readiness, first we looked to publicly available ACO readiness tools: the Centers for Medicare and Medicaid Services (CMS) Accelerated Development Learning Session Planning Tool, the American Medical Group Association (AMGA)’s ACO Readiness Assessment, and the University of California at Berkeley ACO Readiness Assessment Tool. Another survey, conducted by the Health Research Assessment Trust, with results reported by the Commonwealth Fund, focused on hospital readiness for transition to an ACO model. In reviewing these surveys, we concluded that many questions focused on three primary domains: structure, leadership, and governance; use of information technology (IT) and data systems; and care management and population health. Other domains include, but are not limited to, the regulatory context, finance and contracts, organizational mission, and clinical engagement. It is important to note that the domain taxonomy among the tools we reviewed was different in...
each survey instrument, and that these instruments are not tailored specifically for AMCs.

Second, we looked to experts who have sought to develop early ACO evaluation tools. For example, an ACO Evaluation Framework by Fisher and colleagues includes a description of local ACO readiness factors, and names structure/governance, health IT, and care management as three domains, among others, typically found in existing survey instruments and being likely to have some impact on ACO formation, implementation, and performance. This framework also highlights the importance of contract characteristics, among other factors, but because this is not a factor with the MSSP because of more uniform contracting requirements, we chose not to focus on this element.

Third, in establishing ACO readiness domains for our purposes, we looked to early ACO pilot experience with non-AMCs in the Brookings–Dartmouth ACO Collaborative. This endeavor has shown leadership, governance, and experience with risk as important facilitators of ACO development, and robust health IT infrastructure and strong care management capability are important facilitators of health system transformation. Finally, in our judgment, the three selected domains represent important operational and investment considerations for any emerging ACO trying to make judicious decisions on resource allocation in a strained financial environment.

From AMC to AMC ACO: Aligning Missions

There are unique, mission-driven objectives for AMCs that directly affect transformation to a more integrated model of care. Whereas most health systems are focused on providing clinical care and may create processes to improve the quality and efficiency of this care, AMCs maintain a tripartite mission that also includes providing subspecialty care; emphasizing research and discovery; and educating trainees about and within the care delivery process. AMCs often serve as the “safety net” for patients who may be without options based on the complexity of care required or because of socioeconomic circumstances, and this will likely include many dually eligible or other Medicare beneficiaries. AMCs generally provide high-quality care for a significant population with a high burden of chronic illness, substance abuse, mental illness, poverty, and other barriers to accessing care. With respect to the educational process and accountability for care provided, resident physicians will be the ordering physician for many costly services, yet the attending physicians are more likely to be ultimately responsible for the selection, further emphasizing the importance of team collaboration and decision support. In addition, in a transforming delivery system, resident physicians will develop a better understanding in the classroom, as well as on the wards, of the importance of systems-based practice and the economics of health care. With respect to alignment of incentives and advancement, ACOs typically reward physicians for high-quality clinical performance; however, the goals for promotion in academic medicine focus on grant support, publications, and scholarly reputation. Finally, with respect to research, typical clinical and translational research relies on a careful and long period of study, whereas rapid continuous process improvement is key for success in more advanced and adaptive delivery models. For AMCs considering ACO formation, these dynamics will affect the governance selected, the IT functionalities invested in, and care management strategies that are sought.

To our knowledge, as of January 1, 2014, there are no publicly available early results related to the MSSP, but the CMS had recently reported on year one results from the Pioneer ACO program. All 32 of the participants were able to improve quality, and 13 generated gross savings of nearly $88 million in 2012, saving nearly $33 million to the Medicare Trust Funds. Partners HealthCare of Brigham and Women’s Hospital/Massachusetts General Hospital, Montefiore Medical Center Pioneer ACO of Albert Einstein College of Medicine, Dartmouth–Hitchcock Medical Center, Banner Good Samaritan Medical Center, part of the Banner Health Network ACO, and Beth Israel Deaconess Care Organization were AMCs that received shared savings payments based on their year one performance. Nearly all of these AMCs seemed to attribute their success to institutional assets that further reinforce the three general domains that we will describe below. Similarly, after the five-year PGP Demonstration program, those five groups that generated Medicare savings of $38.7 million (earning performance payments of $31.7 million) attributed much of their success to investments in care management programs, health IT, and redesigns of care processes, with the majority of savings occurring in outpatient services, not the inpatient setting. On the basis of these results, as well as early Pioneer ACO results, we suggest that AMCs should give serious consideration to their preparedness in each of these domains.

Applying the Three Domains to ACO Development

Organizational structure and governance

Alignment of leadership and decision making is critical within an AMC to support ACO development. An AMC would ideally allow for unified management or decision making over its university as well as the clinical delivery entities to better align strategic priorities and resource allocation. To this end, an increasing number of AMCs, there is a singular executive overseeing both of these entities. Likewise, a single executive may be able to effectively govern and implement change within an ACO. Many AMCs are also considering the creation of new leadership positions that focus primarily on strategy, transformation, population health, or accountable care. For example, Detroit Medical Center created a chief transformation officer/executive vice president for strategy and innovation, Partners HealthCare has a vice president of population health management, and other health systems have created positions for medical directors for accountable care, delivery system innovation, or similar roles. These newly created health system positions may also encompass a leadership role within ACO operations or governance. Although creating a position in and of itself does not necessarily portend successful transformation, it does represent an important institutional acknowledgment and investment in these principles. The specific institutional arrangement will typically depend on the AMC’s existing organizational structure and political culture. Despite the benefits of a nimble decision-making structure, there is also significant advantage to an ongoing process that allows for broad
stakeholder engagement. The MSSP requires that ACO participants maintain at least 75% representation on the ACO governing board, in an effort to ensure sufficient input in the decision-making process and fiduciary responsibility of the board to the ACO rather than to any one participant. Although these participant representatives or leadership members need not necessarily be physicians, the AMGA survey includes "physician-led" as one major domain of readiness, and the Commonwealth Report stated that over 50% of the hospital-associated ACOs were joint ventures between hospital and physician leadership.

In addition to governance, organizational structure and attributes promote success. For an AMC starting an ACO, there is an advantage to having access to a broad primary care network; having experience in managing risk, such as through operating a managed care plan; and owning or being closely affiliated with post-acute-care or skilled nursing facilities. A broad primary care physician (PCP) network is necessary to facilitate access to care, especially in the immediate postacute period, as well as longitudinal preventive care. Although development of a large primary care program may not be inherent for the AMC subspecialty environment, no ACO can succeed without active participation and leadership of the PCPs involved in the design and implementation of the ACO. To our knowledge, of the 11 Pioneer ACOs that are AMCs, 6 have at least 300 employed or affiliated PCPs serving 10,000 beneficiaries or more. Early adopters of the ACO model have emphasized the importance of having PCPs drive the design of the ACO to ensure that quality and cost are aligned and support physician-majority leadership boards to further shape components of the model. PCPs, along with nurse case managers and other team members, have a key role to play in identifying patients who would benefit from particular care management programs to drive improved quality and health and, ultimately, a reduction in cost of care. Current ACOs continue to grow their PCP foundation. Regardless of whether a primary care network has been previously established or will become a new collaboration, an AMC will need to focus on solid integration of PCPs into the ACO structure. This will likely be simpler if a physician group or practice has a history of close collaborative efforts with the health care entities with which it now seeks to coordinate care.

However, in addition to the critical role for PCPs in an AMC ACO, the active participation of specialists should also ideally be sought in both program design and governance. True clinical integration involves careful and thoughtful incorporation of appropriate high-quality specialty services into the care team to meet the needs of the population. Specialty care still generally rewards a “volume-based” fee-for-service model, and therefore the transition to a broader “value-based” population health model will certainly be a cultural shift. AMCs should seek to aid specialists by supporting IT solutions or protocols to facilitate appropriate use of services and to further promote network growth strategies that allow specialists to be clinically productive while providing “the right care, at the right place, at the right time.” Specialists add significant value in each aspect of the AMC tripartite mission, and a collaborative approach will better ensure the achievement of shared goals and specialist investment in the process.

As fee-for-service payment still predominates, many AMCs may have little experience with how to use payment to drive behavioral changes and improved quality of care. Therefore, organizations with previous experience operating a managed care plan are at both a structural and experiential advantage in entering an at-risk or ACO environment. Indiana University (IU) Health ACO, Inc., serves as an example that has established a large health plan with about 100,000 covered lives, including Medicare Advantage, Medicaid, ACO, and self-insured populations. IU Health has been able to transfer the strategies used within these managed care populations to additional segments of the population through their participation in the MSSP. This allows for a more integrated delivery system where payers and the delivery system are working in concert to improve quality of care while reducing the cost of care. Other organizations with experience in managing a large self-insured employee population are Geisinger Health Plan and the University of Iowa Hospitals and Clinics.

Although certainly not a requirement, owning or maintaining a close relationship with a skilled nursing facility, long-term care facility, and palliative care program provides greater expertise in management for geriatric, debilitated, and higher-risk transitioning post-acute-care patients. Seven of the 11 AMCs approved as Pioneer ACOs leveraged current affiliations with 1 or more of these post-acute-care programs as part of their strategy towards ACO transition. This includes many dually eligible patients, who have been shown by the PGF Demonstration program to best exhibit cost savings through the program. Because 32% of Medicare spending occurs in the last two years of life, these types of programs may offer an important opportunity to improve the quality of care while reducing its cost.

Robust IT systems

Under the MSSP, an ACO must be able to measure, report, and then ultimately perform on a set of selected quality measures in order to remain in good standing in the program and to be eligible for any potential shared savings. This critical reporting process will only occur on an annual basis, but the systems that support such reporting are a considerable asset. There is tremendous value in having the analytic capacity to be able to evaluate a broader set of process and outcome measures in order to remain in good standing in the program and to be eligible for any potential shared savings. As generally large organizations, AMCs may benefit from economies of scale in...
instituting in effective IT infrastructure. With estimated costs of $15,000 to $50,000 per physician, population health data tools can be expensive; however, investment and use of a robust system will be essential to understand patient populations and promote care coordination and ACO transition. More IT capability can promote efficiency, reduce redundancy in electronic ordering, and improve billing fidelity, but despite these gains, AMC leadership will still need to make decisions regarding additional investments. In fact, all 11 of the AMC Pioneer ACOs have already chosen to invest in the establishment of an advanced IT system to document patient data, with 6 of the institutions currently contracting with EPIC Systems and the rest using other next-generation EMR systems through companies such as Cerner or eClinicalWorks.

Powerful information systems can lead to more rapid access and interpretation of data. These tools also assist in the determination of Medicare beneficiary attribution within broader team structures. Better defining individual contribution within a dynamic team construct, in outpatient or inpatient environments, can lead to elevated quality improvement and improved educational opportunities, especially for trainees as work hours changes have increased the frequency of care handoffs. Advanced analytic systems will better enable real-time assessment and continuous process improvement for targeted providers as well as patient populations. Finally, this technology will allow for improved risk adjustment to more accurately incorporate and reflect the burden of illness within the population, which will be critical for support among AMC providers.

Care management and population health

Another critical component for launching a successful ACO model is the ability to manage the care of patients at a population level and to coordinate care through care management teams across the continuum of care. Many AMCs carry a high burden of chronically ill beneficiaries who require more intensive and advanced services. Currently, care coordination efforts at AMCs frequently focus on the care transition from acute care back to the community. Twenty percent of Medicare beneficiaries are typically readmitted within 30 days of discharge, and Medicare beneficiaries with multiple chronic conditions are more likely to be readmitted and require more intensive coordination efforts. The ACA now penalizes hospitals for elevated levels of readmissions, and health-care-delivering entities, including many AMCs, are seeking to determine and implement bundles of strategies to minimize readmissions. However, population health involves an even broader approach to coordinated care and includes interventions such as risk prediction to identify the target population, care manager deployment, wraparound social support services, patient engagement, improved access to primary care services, outcomes-driven data and dashboards, and improved care transitions throughout the continuum. Some AMCs will then seek to apply lessons learned to expanded segments of the population. For example, in February 2013, after experiencing a 54% reduction in hospitalizations and a 67% reduction in outpatient costs within its Trinity Pioneer ACO Program, UnityPoint Health (formerly Iowa Health System) leveraged its managed care strategies such as palliative care programs, an advanced medical team, and wound care coordination efforts to further target a new population of 650,000 Medicaid enrollees across Iowa through a Medicaid ACO pilot.

Developing long-term population care management strategies can sometimes be difficult at AMCs where patients tend to be sent for single-encounter diagnosis rather than long-term continuity of care. In addition, a fee-for-service model may not provide financial remuneration for many innovative care team positions that provide these essential care coordination activities (e.g., nurse case managers, community health workers, patient navigators), and either care management fees, shared savings, or an alternative funding mechanism would need to be identified to ensure sustainability and continued success of the ACO model. Among the Pioneer ACOs, Partners HealthCare, built on its prior demonstration project at Massachusetts General Hospital (which reduced readmissions by 20% and mortality by 4% while improving primary care productivity), used case managers in its integrated care management and team-based patient-centered medical home model in managing complex and comorbid patients. In announcing year one Pioneer ACO results, Beth Israel Deaconess Medical Center attributed its success to effective implementation of a care management program including care managers for medically and socially complex patients, and a nurse practitioner home visit program, among other factors. As more results become available, the evidence base for care management within the ACO model will continue to grow.

Likewise, through strong care management programs, AMCs in the PGP Demonstration program were able to improve the health of high-risk, high-cost patients and generate cost savings. Through the implementation of extensive care coordination programs focusing on specifically targeted high-risk patient population, all 10 groups in the demonstration successfully met 30 out of 32 required quality metrics. In addition to improving quality of care, 4 out of the 10 groups were able to earn bonus payments based on estimated cost savings throughout all five years of the program. Two of these groups were AMCs including University of Michigan Health System, and Marshfield Clinic, associated with the University of Wisconsin School of Medicine education programs. A unique advantage of these two groups was being the two largest physician groups in the demonstration program, each with more than 1,000 employed physicians. Additionally, both groups devoted more than 60% of their demo-specific FTEs to care coordination programs—one focusing on expansion of anticoagulation and heart failure care management programs and the other on improving transitional care with call-back programs and visiting nurse services. Both of these care coordination strategies reduced hospitalizations by improving subacute and postacute care. By focusing on these critical elements and investing in innovative care delivery teams, such as those including nurse case managers and health coaches, and deploying those care teams in a thoughtful and evidence-based way appropriate for the institution, large AMCs can be successful in developing innovative care management programs suitable for ACO formation.

To reduce utilization and improve health outcomes, many organizations are developing care management strategies...
to better engage and educate patients, and their families, through active patient engagement and self-management efforts. For example, Fairview Health Services in Minnesota, and others, have been using a patient engagement survey (known as “PAM”) to better evaluate how engaged their patients are in their own health care. Providers are able to use the results of this survey to shape appropriate care programs for each individual patient and determine where to target resources to improve overall health and patient satisfaction.14 Because patients ranking in the lowest engagement levels can incur costs up to 21% higher than patients at the highest levels of engagement, innovative strategies and patient engagement programs have led to reductions in admissions, emergency department visits, and the total cost of targeted high-risk patient populations.29

It will also be critical for AMCs to leverage community partnerships to improve the health of their patients. Allina Hospital and Clinics in Wisconsin has established relationships with local businesses such as CVS MinuteClinics, social service networks, and regional long-term care facilities, which offer alternative locations for preventive services, disease management, and urgent care.14 Johns Hopkins University, announced as an ACO in 2014, was a recipient of a Center for Medicare and Medicaid Innovation grant for its Johns Hopkins Community Health partnership to build on existing efforts at targeting high-risk populations in the East Baltimore community with care coordination programs spanning the continuum of care.20 Community-based partnerships such as these allow AMCs to use tools outside the clinical environment to improve the health of individuals and families within their communities. These community-based programs can be especially important in urban, underserved environments plagued by poverty, substance abuse, and mental illness.

Concluding Remarks

The MSSP, a three-year program with an annual application cycle, presents a unique regulatory opportunity for AMCs to work on transitioning to more integrated care delivery models without downside risk and can therefore serve as a gentle “on-ramp” to care delivery and payment reform. Transformation to an integrated ACO model will be significant, with one AMC estimating costs of $3 to $5 million.22 Although there have been some great early success stories in this transition, challenges remain for many. It is clear that careful consideration of governance and structure, health IT infrastructure, and care management and population health investment, among other factors, will be important components of a successful transformation strategy, whether or not a formal ACO is ultimately pursued. An understanding of local context and barriers will be important, and it is unlikely that there will be a “one size fits all” solution. Over time, as the early ACOs mature and the evaluation tools become increasingly sophisticated, this information will help inform the next generation of readiness assessment tools. AMCs have unique needs and considerations, which will require assessment and evaluation tools that will fully consider the tripartite mission and the ultimate impact on achieving the triple aim.

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