

Evolving Health Workforce Roles in Accountable Care Organizations

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ABSTRACT

OBJECTIVES: New models of payment and care delivery require new roles within the healthcare workforce, yet little is known about how accountable care organizations (ACOs) leverage clinical staff to achieve the transition to value-based care. This research examines health workforce use within ACOs and identifies common roles and functions performed by staff across sites.

STUDY DESIGN: Phone and in-person interviews.

METHODS: Semi-structured phone interviews with clinical or administrative leaders from 17 ACOs, supplemented by in-person interviews with a wider range of clinical and administrative staff during 1- to 2-day site visits to 6 ACOs. Sites were selected based on early evidence of quality improvement or cost savings, or because they demonstrated novel use of the health workforce.

RESULTS: Across sites, ACOs reported increased use of interprofessional health-care teams with roles stratified by patient risk categories. New workforce resources were primarily directed at attempts to reduce overall cost of care by improving care for high-risk patients. This was achieved through hiring new workers and expanding existing workers' roles. Fewer resources were devoted to managing care for low-risk patients, the broadest patient population in most ACOs.

CONCLUSIONS: ACOs report considerable changes in health workforce roles to meet the aims of value-based payment models, but significant differences between models remain. Due to the need to tailor care models to the needs of the local population, a single model of care is unlikely to emerge.

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As their number continues to grow, accountable care organizations (ACOs) have become a significant contributor to HHS' goal of moving half of Medicare payments to risk-based contracts by 2018.¹ Yet, to date, there have been very few studies on the manner in which ACOs impact care delivery or how overall outpatient care teams are evolving to support the implementation of value-based payment models.² Beyond the basics of increasing care coordination and shifting the focus of care from treatment to prevention, not much is known about how providers' roles are evolving and how the health workforce is changing under ACOs. Although there have been a few individual studies on the role of nurses³ and social workers,⁴ the preponderance of research on ACOs has focused on whether these models have generated savings or improved quality⁵⁻⁷ and sheds little light on the specifics of how care was transformed in the shift from fee-for-service to value-based reimbursement models.

In order to address this important knowledge gap, this research synthesizes the perspectives of leadership, clinicians, and other staff working in ACOs obtained from a series of semi-structured interviews and site visits to ACOs. The researchers specifically sought respondents' views on key workforce changes introduced as a result of ACO implementation and the patient populations targeted. In doing so, this paper highlights the importance of risk stratification in

making the most of limited workforce resources. Our findings focus primarily on workforce transformations for high-cost patients where we found that ACOs had focused their efforts. Such information can help inform researchers interested in the impact of ACOs on workforce use, policy makers seeking to encourage participation in value-based models, as well as ACO participants and potential participants currently evaluating their own staffing models.

METHODS

Sample

Through an environmental scan of the literature and interviews with experts in the field, the authors identified 20 ACOs that were early high performers on quality or cost savings results, or that showed evidence of novel use of the health workforce. The authors intentionally sought participants from a broad range of ACO models, including those participating in Medicare models, such as the Pioneer and shared savings ACOs, public ACOs serving vulnerable populations, and provider groups participating in accountable care contracts with commercial payers. Sites that did not include providers that shared some financial risk with at least 1 payer or did not have at least 3 months' experience implementing their accountable care model were excluded. After e-mail outreach to all 20 sites identified, 17 agreed to phone interviews, including 5 Pioneer ACOs, 7 Shared Savings ACOs, 4 commercial ACOs, and 1 county-based Medicaid ACO (see the **Table** for a list of the sites).

Data Collection

Phone interviews, during which a team of 2 or 3 researchers typically interviewed 1 to 3 representatives from ACO leadership at each site, were conducted between September 2013 and June 2014 and lasted approximately 1 hour. Representatives from ACO leadership included chief executive officers, chief medical officers, and clinical leads for care management initiatives. The interview guide focused on a core set of questions, including: 1) the size and nature of the population targeted under the ACO, 2) major care delivery models and services offered, 3) clinical staff responsible for care delivery, 4) challenges encountered under ACOs, and 5) leadership's vision for the future of care delivery under value-based payment.

In order to gain a richer understanding of the use of this workforce under new care delivery models, we selected 6 of the 17 ACOs for in-person site visits. These sites were selected based on the discovery of multiple initiatives during the phone call that warranted further study. During site visits, which lasted 1 to 2 days and took place between January and October 2014, 2 researchers conducted individual and group interviews together with a wide range of staff, from ACO leadership as described above, to medical directors at practice sites, to frontline providers. Providers varied by site, but included physicians, nurse practitioners, registered nurses, social workers, pharmacists, and community health workers. At some sites, administrative staff overseeing quality metrics and data management were also interviewed. During most of the site visits, we visited

Table. Health Systems and Commercial Payers Participating in ACOs Selected for Phone Interviews, September 2013 to October 2014

SITE (LOCATION OF HEADQUARTERS)	TYPE OF ACO ^a
Atrius Health (Newton, MA) ^b	Medicare Pioneer ACO
Banner Health Network (Mesa/Phoenix, AZ)	Medicare Pioneer ACO
Bellin-ThedaCare Healthcare Partners (Appleton and Green Bay, WI)	Medicare Pioneer ACO
Blue Shield of California (San Francisco, CA)	Commercial Payer
Dartmouth-Hitchcock Health ACO (Lebanon, NH) ^b	Medicare Pioneer ACO
Geisinger Keystone ACO (Danville, PA) ^b	Medicare Shared Savings ACO
Hennepin Health (Minneapolis, MN) ^b	County-based Medicaid ACO
Hill Physicians Medical Group (San Ramon, CA)	ACO contract with commercial payer(s)
Johns Hopkins Medicine Alliance for Patients, LLC (Baltimore, MD) ^b	Medicare Shared Savings ACO
Lancaster General Hospital (Lancaster, PA)	Medicare Shared Savings ACO
Montefiore ACO (Bronx, NY) ^b	Medicare Pioneer ACO
Mount Sinai Care (New York, NY) ^b	Medicare Shared Savings ACO
Seton Health Alliance (Austin, TX)	Medicare Shared Savings ACO (former Pioneer)
St. Joseph Heritage Healthcare (Fullerton, CA)	ACO contract with commercial payer(s)
Physicians Organization of Michigan-ACO (Ann Arbor, MI)	Medicare Shared Savings ACO (former Pioneer)

ACO indicates accountable care organization.

^aTwo additional participants could not be reached for permission to identify by name and are therefore not included in the table. One is a commercial payer and one a Medicare Shared Savings ACO.

^bSite visit conducted. Some health systems were participating in multiple ACO endeavors (eg, a Medicare contract as well as an ACO contract with a commercial payer). In these cases, the primary ACO endeavor is listed.

Source: Authors' analysis of ACO listings, verified by participants.

multiple practice locations participating in the ACOs. In all, more than 50 interviews were conducted by phone or in person.

Analysis

Research followed an inductive process designed to generate insights from the themes that emerged during the interviews. Researchers took detailed notes for all interviews in which they participated, whether in-person or by phone. The research team met regularly during the study period to review notes and discuss emerging themes. Once themes were established, 2 researchers independently reviewed and coded the transcripts.

The study design was reviewed and approved by the Association of American Medical Colleges' affiliated independent institutional review board, the American Institutes for Research in Washington, DC.

RESULTS

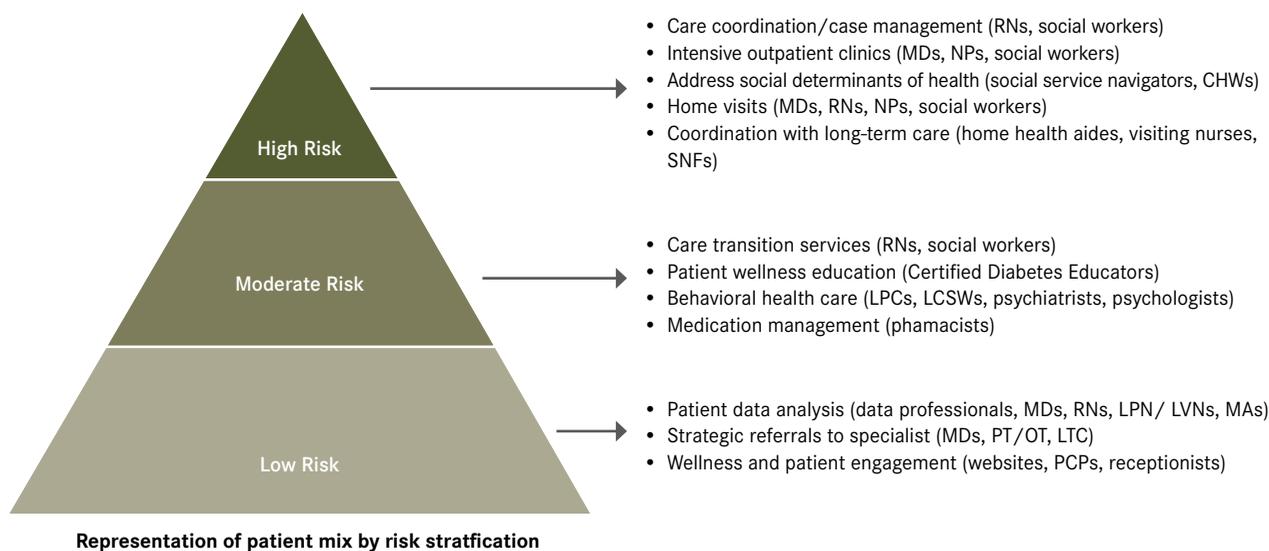
The phone interviews and site visits revealed that all of the organizations were using earlier quality improvement initiatives as a starting point for their ACOs, but participation in an ACO provided an opportunity to renew or expand such efforts. Most of the earlier efforts were funded by grants or participation in demonstration projects where sustainable funding was uncertain. ACO leadership generally set the organizationwide vision and provided some budgetary and administrative support, but let individual practices make the specific staffing decisions, often leading to variation from site to site (and even between providers at the same site) within an organization. Although ACO leaders sometimes expressed frustration that shared savings

limited their ability to fully invest in workforce redesign, the potential for downstream savings did nonetheless prompt some ACOs to expand existing care coordination efforts and engage in additional practice redesign that had a significant impact on workforce roles.

Across sites, respondents reported increased use of interprofessional healthcare teams. At individual sites, this was accomplished through hiring new workers (eg, additional care coordinators) and/or expanding existing workers' roles (eg, using pharmacists to perform medication reconciliation and improve adherence). The addition of new workers and expansion of roles tended to be concentrated around care for the highest-cost patients in recognition of the potential to significantly lower the cost of care through enhanced care coordination. All sites reported using risk-stratification techniques to identify the patients at highest risk of hospitalization and directed increased services to these patients. However, the sites varied in their exact methods for stratification as well as the number of tiers and percentage of patients in each.

The **Figure** depicts a model of the way that patients were generally stratified by level of risk within ACOs and the corresponding care management strategies that were the focus of new or expanded workforce roles. The 3 levels of the pyramid represent (from top to bottom) high-risk, moderate- (or "rising") risk, and low-risk patients. To the right of the pyramid are listed the workforce roles and care management strategies that are generally applied to patients at each level. It is important to note that, although we depict a static model, the exact workforce put in place at each site varied, and in practice, 1 care management strategy—such as addressing behavioral health needs—may actually apply to patients in more than 1 tier.

Figure. Risk Stratification of Patients Drives Workforce Use in Accountable Care Organizations



CHW indicates community health worker; LCSW, licensed clinical social worker; LPC, licensed professional counselor; LPN, licensed practical nurse; LTC, long-term care; LVN, licensed vocational nurse; MA, medical assistant; MD, medical doctor; NP, nurse practitioner; PCR, primary care physician; PT/OT, physical therapy/occupational therapy; RN, registered nurse; nurse; SNF, skilled nursing facility. Source: Author's analysis from interviews and site visits.

High-Risk Patients

The healthcare workers who were most commonly assigned to manage high-risk patients across ACOs were care coordinators or case managers, roles that were typically filled by registered nurses (RNs) or social workers at the sites participating in this study. All sites reported using someone in this coordination role, although the titles varied. Most ACOs embedded them in at least some of their primary care practices, 5 primarily used centralized care coordinators for either telephonic or face-to-face care, and a few used a hybrid approach because not all practices had the patient volume to support an on-site person. The primary duties of this role included communicating with other care team members and the patient to ensure that the provider's recommended care plan was put into place, that any gaps in care were met, and that appropriate follow-up appointments and tests were scheduled as needed.

Although the number of patients assigned to each care coordinator varied by ACO, there was general agreement among different ACOs that 1 care coordinator or case manager could actively manage somewhere between 100 to 150 high-risk patients. Those assigned to a larger population of patients tended to have patients at different risk levels, not all of whom required the same level of care management (for example, some case managers were assigned 1000 to 1500 patients, but only 5% to 10% of them had health needs so significant as to require active case management). Some care coordinators expressed a preference for lower patient-to-provider ratios to improve efficacy in addressing individual patient needs; however, not all programs had sufficient funds to support this.

Four sites developed separate clinics devoted to intensive outpatient care management services—sometimes referred to as “ambulatory ICUs [intensive care units]”—that were specifically designed to intervene and break the cycle of repeated hospitalizations for high-risk patients or those with complex chronic diseases. These clinics were quite resource-intensive and had much lower patient-to-provider ratios than general primary care practices, allowing providers to devote more time and more frequent follow-up visits to these high-need patients. These intensive outpatient clinics were staffed by a 0.25 full-time equivalent (FTE) or 0.5 FTE physician, and supported by other team members such as 1 FTE nurse practitioner (NP) and 1 FTE social worker, per 125 to 200 patients. They also included additional team members, such as addiction and behavioral health specialists, geriatricians, dietitians, pharmacists, and patient navigators, to meet specific needs.

Recognizing that social determinants are a major contributor to costly but avoidable hospitalizations and emergency department (ED) visits, 11 ACOs targeted additional services to high-risk patients that go beyond the scope of traditional primary care services. Social workers, social service navigators, or, in some cases, community health workers link patients with community resources, such as housing, transportation, public health services, or in-home care, when needed. Seven of the ACOs were able to provide personnel—

whether physicians, NPs, RNs, social workers, or emergency medical technicians—to conduct home visits for the frail elderly or patients with conditions that limited their ability to come to the clinic, often through pilot waiver programs or supported by other resources designated by the health system. Six ACOs were working to coordinate more closely with staff at home health agencies and visiting nurse associations to ensure patient adherence at home to providers' care plans, to alert the health system in cases of unsafe living arrangements, or to provide extra services due to changes in patients' personal support networks. Many sites also discussed examples of primary care practices coordinating with hospitals in the region to receive daily updates about their patients who had been admitted or visited the ED. In some cases, this could trigger outreach from a social worker or community health worker affiliated with the practice to ensure continuity of care. Finally, some ACOs were working more closely with skilled nursing facilities. Agreements ranged from developing new protocols for sharing discharge information to placing a full-time NP or other clinician on site with the aim of preventing the need for ED visits and hospital readmissions.

Moderate-Risk Patients

ACOs, in general, reported fewer changes in roles for professionals caring for what are sometimes called “rising risk” or moderate-risk patients. These patients have conditions that are currently stable but, if exacerbated, could push them into the high-risk category. Some ACOs reported devoting some modest care coordination (2 ACOs) or nurse-led wellness and education protocols to these patients (eg, smoking cessation or motivational interviewing around diet and exercise) (8 ACOs) to monitor them and prevent them from rising into the higher-risk tier. For example, 2 ACOs assigned certified diabetes educators, who are registered dietitians with additional training in diabetes medications and management, to meet with patients with diabetes across a number of primary care clinics who have been identified by the ACO as at risk for uncontrolled blood sugar. These professionals help to create a customized care plan for each patient, help the patient understand his or her condition and set goals for improvement, and monitor progress. Pharmacists are also being increasingly integrated into care teams for moderate- or high-risk patients (8 ACOs), to review medications and help resolve duplications and interactions, and identify strategies to improve patient adherence and health outcomes.

A common theme running through services provided for high- and moderate-risk patients was enhanced access to behavioral health services. Staff providing such services—which might consist of individual or group therapy sessions, psychiatric medication management, or alcohol or drug treatment—typically included licensed master's-level behavioral health specialists, such as clinical social workers, therapists, and drug and alcohol counselors. In 8 ACOs, behavioral health specialists (either licensed professional counselors or licensed clinical social workers) were embedded in primary care

clinics or co-located with primary care teams to provide real-time access for patients dealing with acute mental health issues, or to provide a warm handoff to ongoing care.

Moderate-risk patients who are hospitalized may also receive care transition services from nurse or social worker care coordinators to help smooth the transition from hospital to home or another facility. These services, which generally aim to ensure the patient continues receiving quality care outside the hospital and to prevent readmissions, may include comprehensive discharge planning, taking into account the patient's physical and social needs, enrollment in a care management program led by a nurse or social worker, and the coordination and scheduling of follow-up appointments with primary care or specialist physicians within a short period after discharge.

Low-Risk Patients

All patients in an ACO, including low-risk patients, are generally tracked and flagged for preventive care such as vaccines and screenings, by a patient data analyst. The personnel in this role varied greatly by site, from medical assistants, licensed practical nurses, licensed vocational nurses, and/or RNs searching the electronic health record for risk factors and identifying groups of patients, to professionals with training in health informatics to perform complex risk-stratification analyses.

Some ACOs also reported other changes in care for all ACO patients, including low-risk patients, such as directing referrals to specialists who can demonstrate that they provide high-quality care at lower cost or to those who participate in agreements to send information about the patient back to the primary care office (3 ACOs). In general, few major workforce changes were found to have taken place for the low-risk patients who make up the vast majority of ACO patients, but additional wellness and patient engagement efforts were often cited in interviews as service areas that ACOs would like to expand in the future, once enough savings had been generated from better management of higher-risk patients to enable investing in other areas. Directing patients to smoking cessation and weight loss resources were mentioned as common starting points.

DISCUSSION

Although all of the ACOs interviewed had chosen to invest in a team-based model in primary care, the actual structure of the teams varied widely from site to site. One of the biggest takeaways from the research was that there was no "single model" of care, distribution of positions, or provider-to-patient ratios that worked equally well for all sites. Rather, sites tailored the composition of their teams according to the needs of the local patient population and provider availability. For example, sites with a large proportion of safety net patients were motivated to invest in social workers and others who could address social issues affecting health. Meanwhile, sites with a large population of patients with unmet behavioral health needs

tended to find it cost-effective to invest in clinical social workers, counselors, and/or behavioral health consultants, and so on. Factors affecting the local health workforce, such as nearby nursing or other training programs, professional licensure restrictions, or costs related to the local labor market, also played a role.

Limitations

First, although many different ACO models are currently being tested, this study aimed to collect information from a broad array of ACO models and to deduce general findings that applied across a majority of sites. It is likely, however, that more nuances might result from individual studies focusing on ACOs in 1 particular model. Second, because our findings focused primarily on changes in care coordination in primary care and postdischarge, we cannot comment as broadly about the effects of transformation on inpatient or specialist care. Our data collection efforts were also limited to those sites that we identified through background research, and who consented to phone interviews. As with any research that relies on interviews, it is possible that interviewees and/or researchers contributed some of their own subjective interpretations to questions and responses, or that some features present in ACOs did not come up during the phone call. We attempted to mitigate this by speaking to site representatives from multiple levels in the organization, when possible. Finally, it is important to underscore that these are early findings; although alternative payment models have existed for some time, ACOs themselves are a relatively recent—and still evolving—model. Although we share a snapshot of what we found in the current era, it is too soon to make any definitive conclusions about the effects of ACOs on workforce needs.

CONCLUSIONS

ACOs are making significant investments in the health workforce as part of their larger goal of improving quality while lowering total cost of care. Organizations make this investment primarily by hiring new workers (eg, care coordinators and social service navigators) and by expanding roles within the existing workforce (eg, medical assistants and pharmacists). In primary care, these new roles are mainly focused on the small but significant high-risk population to maximize the potential to improve quality and lower cost. However, each organization is taking a slightly different approach, which results in differences among sites in the particular personnel used, as well as in specific provider-to-patient ratios. It is unlikely any one model will emerge as the ideal nationwide or that requiring use of particular personnel or ratios would yield even results across all ACOs. Finally, making significant changes to payment and delivery models takes time; even the sites most experienced in bearing financial risk are still experimenting, measuring, and refining their service models. As payment and delivery models continue to evolve, it will be important to monitor the impact on healthcare providers and patients.

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