



Valuation of Accountable Care Organizations: Technological Environment

Over the past two decades, there has been a rapid adoption of technological innovations in the U.S., which has fundamentally changed the healthcare delivery system. Health information technology infrastructure is integral to the success of ACOs, as well as data analytics. Large organizations may be able to utilize their relatively substantial resources, whether technological or financial, to lower expenditures using telehealth and advanced data analytics. This final installment of a five-part series on the valuation of ACOs will discuss the rapidly-changing technological environment in which ACOs operate.

Health Information Technology (HIT)

Research indicates that implementation of health information technology (HIT) may lead to improved efficiency and quality management.¹ HIT includes a variety of software applications, such as billing software, staffing models, and electronic health record (EHR).² Technologies such as EHR systems have resulted in cost savings, greater patient care, and ease of workflow.³ Accountable care organizations (ACOs) in particular may benefit from the utilization of EHR, as they have been shown to increase efficiencies and cost savings.⁴ Further, EHRs are linked to clinical improvements,⁵ which could financially benefit the operations of both ACOs and ACO participants.

Care coordination for ACOs makes EHR technology vital to success. A hallmark to a successful ACO is care coordination between providers, often achieved by leveraging EHR capabilities.⁶ However, ACOs have seen interoperability issues among all the EHR software utilized within an ACO.⁷ Interoperability issues are significant problems in achieving success for ACOs because care coordination and interoperability are fundamentally intertwined.⁸ ACOs that utilize one EHR system across all ACO participants have real-time updates on patient data and optimized abilities to coordinate care.⁹ The optimized abilities contrast with ACOs that use multiple EHR systems, which may inhibit care coordination across all providers.

Difficulties also arise between EHR incompatibilities to meet reporting requirements. However, there is potential for interoperability issues to be addressed by the *Trusted Exchange Framework and Common Agreement* (TEFCA).¹⁰ The agreement seeks to support the development of a nationwide exchange of electronic health information to be utilized by the numerous health information networks.¹¹ Finally, patient engagement

requires ACOs to maintain strong EHR capabilities.¹² EHR capabilities allow for patient engagement through the use of “patient portals.”¹³ The portal enables patients to view their medical records online, communicate with their provider, and request prescription refills.¹⁴ ACOs leveraging patient portals can significantly increase patient engagement.

Artificial Intelligence

In the coming years, AI will likely be critical to the success of quality improvement, risk adjustment, and population health management, all key tenets of value-based care.¹⁵ With the rapid growth in the amount and accessibility of clinical data, AI will likely be utilized to analyze this data to reduce inefficiencies and costs while contributing to better patient outcomes.¹⁶ Providers are often time-constrained due to manually entering EHRs, increasing chances of burnout.¹⁷ Leveraging AI can streamline workflow, close gaps in care, and allow for risk adjustment and the elimination of delays in reimbursement.¹⁸

Data Analytics

Health data analytics involves extracting insights from sets of patient data from various sources, but primarily EHRs.¹⁹ The need for data analytics for ACOs is spurred by the use of data analytics technology for population health management (PHM).²⁰ PHM is a practical approach to improving healthcare delivery and outcomes for a group of patients while simultaneously lowering costs to the provider.²¹ Using EHR data in analytics is a subset of data analytics called clinical data analytics.²² Clinical data analytics follows the Healthcare Analytics Adoption Model, which classifies a group of analytical capabilities and the sequencing for adopting them.²³

There are eight progressive levels to the Healthcare Analytics Adoption Model as follows:

- (1) Level 0: Fragmented Point Solutions
- (2) Level 1: Enterprise Data Warehouse
- (3) Level 2: Standardized Vocabulary and Patient Registries
- (4) Level 3: Automated Internal Reporting
- (5) Level 4: Automated External Reporting
- (6) Level 5: Waste and Care Variability Reduction
- (7) Level 6: PHM and Suggestive Analytics
- (8) Level 7: Clinical Risk Intervention and Predictive Analytics
- (9) Level 8: Personalized Medicine and Prescriptive Analytics²⁴

ACOs utilize data analytics to manage patient populations, manage financial risk, and monitor performance.²⁵ ACOs use a variety of data sources, including claims data from the Centers for Medicare & Medicaid Services (CMS), pharmacy data, disease registry data, patient-reported data, administrative data, and financial data, to achieve savings.²⁶ Data analytics has proven useful for managing care transitions, identifying gaps in care, and supporting post-discharge programs.²⁷ Robust data analytics programs used by ACOs allow for improved care coordination, hospital admissions, screening and vaccinations, and chronic disease management.²⁸ ACOs often use data analytics to identify high-risk or high-cost beneficiaries.²⁹ ACOs that employ data analytics tools engage their patients more, which creates a better provider-patient relationship and directly correlates to more personalized care plans and better patient adherence to provider recommendations.³⁰ Successful ACOs have maximized the potential of their HIT solutions. However, not all ACOs are utilizing tools such as PHM and personalized medicine.

Further, ACOs should not expect success in silos. For many data analytics tools to be successful, the ACO must also coordinate with other parties, such as schools, public health agencies, and local organizations, to manage personal behaviors in a measured way.³¹ Finally, a fully successful data analytics program has access to data outside the organization or network, such as other providers that the ACO's assigned patients may visit.³² Data analytics is an incredibly useful tool for ACOs; however, they must coordinate with other parties in order to fully realize the benefits of data analytics.

Telehealth

Telehealth delivers health-related services via telecommunications technology.³³ Telehealth services can supplement or replace face-to-face encounters with physicians. Large industry players connect physicians with patients that could be thousands of miles away and help address patients' minor medical concerns.³⁴ Telehealth services show great potential for helping to

meet the growing demand for medical services and the shortage of physicians. Moreover, telehealth services can be more cost-efficient for the patient and the provider of the services versus face-to-face encounters.³⁵ As more studies validate the efficacy of telehealth services, more insurance providers are offering coverage of telehealth services.³⁶

Telehealth capabilities greatly expanded for ACOs when CMS launched *Pathways to Success* in 2018 for ACOs that participate in the Medicare Shared Savings Program (MSSP).³⁷ ACOs that accept financial risk in the *Basic Track* and *Enhanced Track* of MSSP can receive payment from Medicare for telehealth services furnished to beneficiaries, regardless of geographic limitations.³⁸ The change also allows the patient's home to be the originating site, which significantly expands patient access to telehealth.³⁹ Telehealth will undoubtedly change how care is delivered to ACO patients and will likely lead to new opportunities to reduce expenditures from inpatient care.

Conclusion

Going forward, ACOs will have to overcome a number of challenges, in order to remain viable in the latest paradigm shift in the U.S. healthcare delivery system, including the design and implementation of new care delivery, which is the most-reported challenge for ACOs.⁴⁰ Other common challenges facing ACOs include aligning physician compensation with value-based contracts, mixed quality of payor data, and lack of data analytic capabilities.⁴¹ Notably, ACOs in downside risk arrangements (two-sided contracts) are more likely to have concerns regarding the quality of health plan data.⁴² The quality of data provided from a health plan can determine the success of an ACO, especially if the ACO does not have advanced data analytics capabilities. Ultimately, the utilization of technology in value-based reimbursement structures such as ACOs could promote one of the central goals of healthcare reform, i.e., increased efficiency in healthcare and high quality care.

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