Improving Accountable Care: Requirements for Population Health Management

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Many healthcare organizations believed that the electronic medical record (EMR) was the only technology needed to meet the objectives of accountable care. It became clear that while the EMR provides important information for population health management, additional technology is required. Population health management applications have emerged that provide integrated patient-level data (e.g., claims and clinical) from multiple sources that can be used at the point of care to improve decision making as well as identify and stratify patients that would benefit from care management. Essential to the team of providers, care managers, and patients are the workflow tools to support the creation and management of care plans and a communications channel to fully engage patients in their care.

Introduction

Accountable care for both federal and commercial initiatives shares the same objectives as the Institute for Healthcare Improvement's Triple Aim: improving the patient experience of care (including quality and satisfaction), improving the health of populations, and reducing the per capita cost of healthcare. The fundamentals of reimbursement and care delivery are changing, moving from volume- to value-based reimbursement. While accountable care programs vary in structure, they all share the need to improve the health of their patients and are doing so by embedding care managers into physician practices and creating care teams that encourage clinicians to practice at the top of their licenses.

The healthcare industry continues to see growth in a wide variety of initiatives. Additionally, many programs are reporting positive financial and quality accomplishments. For example, on July 16, 2013, the Centers for Medicare & Medicaid Services (CMS) reported the first-year results of the Pioneer Program. Those results include:

- **Costs.** Costs for the more than 669,000 beneficiaries aligned with Pioneer accountable care organizations (ACOs) grew by only 0.3% in 2012, whereas costs for similar beneficiaries grew by 0.8% in the same period.

- **Shared savings.** 13 out of 32 pioneer ACOs produced shared savings with CMS, generating a gross savings of $87.6 million in 2012 and saving nearly $33 million to the Medicare Trust Funds. Program savings were driven, in part, by reductions that Pioneer ACOs generated in hospital admissions and readmissions.

- **Readmissions.** 25 of 32 Pioneer ACOs generated lower risk-adjusted readmission rates for their aligned beneficiaries than the benchmark rate for all Medicare fee-for-service beneficiaries.

- **Blood pressure control.** Pioneer ACOs performed better on clinical quality measures that assess hypertension control for patients. The median rate among Pioneer ACOs on blood pressure control among beneficiaries with diabetes was 68% compared with 55% in an adult diabetic population in 10 managed care plans across 7 states from 2000 to 2001.

- **Cholesterol control for diabetes patients.** Pioneer ACOs performed better on clinical quality measures that assess low density lipoprotein (LDL) control for patients with diabetes. The median rate among Pioneer ACOs for LDL control among beneficiaries with diabetes was 57% compared with 48% in an adult diabetic population in 10 managed care plans across 7 states from 2000 to 2001.

Most of the cost improvements made to date represent process improvements such as keeping patients out of the inpatient setting and diverting patients seeking inappropriate emergency room (ER) use. Healthcare organizations will have to improve clinical outcomes and engage patients (particularly those with chronic conditions) in order to sustain savings, continue quality improvement, and manage risk.

Technology

Technology is a key factor in reaching accountable care objectives. Foundational applications that are used to run the day-to-day business of providers and health plans must be in place because they represent an important source of much of the data required for population health management. For example, the EMR collects relevant clinical information and can accept data from other sources with information such as gaps in care and out-of-network utilization. Claims data provides a broader view of care delivered and is necessary to process new reimbursement methodologies. Examples of other foundational applications include:

- Computerized physician order entry

- Admission, discharge, and transfer

- Billing

- Practice management

- Enrollment

- Care management

Health information exchange technology is required to harmonize and normalize heterogeneous data from disparate systems, such as EMRs, claims, laboratory, and pharmacy, and present that assimilated data, on demand, within various, interrelated applications. Many provider organizations, particularly integrated delivery networks, have multiple vendor products supporting the same functionality. For example, different laboratory systems calibrate test results differently, so equivalent values for a complete blood count would be represented by different figures.

Meeting the specific objectives for accountable care requires a suite of technologies. Key population health management applications include:

- **Analytics for both performance measurement and patient identification/stratification.** Using both actuarial methods and clinical analytics, healthcare organizations should be able to also predict which patients are likely to develop an illness and if future expenses can be avoided. The ability to assign patients to the intervention (e.g., chronic illness, medication management, transitions, and end-of-life decisions) that will result in the best outcomes is critical. Analytics applications provide financial (claims) and clinical (encounter) data at the point of care to support clinical decision making as well as for other analytic purposes. Data must be timely, accurate, and digestible and use consistently applied quality checks and user acceptance tests. Data models should be extendable to accommodate new and often unstructured sources.

- **Workflows that are data driven and include functionality to manage the tasks, create and manage care plans, track events, and schedule appointments and reminders.** The ability to generate both personalized care plans such as diabetic recipes as well as broader campaigns, for flu shot reminders, should exist within the application. Applications should also include the ability to expand as healthcare organizations become more sophisticated and take on more advanced care management activities. Population- and patient-level tools should meet the needs of many end users (e.g., care managers, physicians, analysts, and administrators) with role-based access to patient records, thus supporting the entire care management team.

- **Patient engagement tools that enable patients to be more involved in managing their own health or illness.** While most healthcare organizations have a patient portal, it requires a patient to actively access and use it. Future patient engagement strategies will likely include additional channels, such as texting, to enable more proactive patient engagement. This technology creates a platform for collaboration among patients, providers, and care managers in managing care plans and patient progress.

Organizational Transformation

Transforming an organization to take on and manage risk as well as focus efforts on outcomes rather than volume of service requires much more than technology:

- The shift involves executive-level sponsorship and sustained commitment to drive change, allocate funds, invest in people resources, and adjust and introduce new processes. Executives should take an active role in transformation to ensure success.

- Healthcare organizations that have begun the transformation process speak about the critical nature of change management for people and processes. Many organizations have underestimated the degree of change, which has limited success.

- Determining the relevant data and learning how to use it requires diligence and consistent processes to evaluate quality and context.

- Provider organizations are particularly challenged with the new skills that are required for population health management, including the use of claims data and understanding what it can and cannot do, organizing and managing a team approach to care, matching patients with the right interventions, designing and evaluating interventions, strategizing to engage patients, and managing a risk contract.

Table 1 provides an overview of IDC Health Insights' Accountable Care Maturity Model, which includes five stages of maturity.

TABLE 1

IDC Health Insights' Accountable Care Maturity Model: Overview of Maturity Stages

	Ad Hoc	Opportunistic	Repeatable	Managed	Optimized
Key characteristics	• Pilot projects (e.g., fee for service with quality bonus) • No risk sharing	• Limited upside risk sharing • Reactive accountable care • Unbudgeted funding	• Upside and downside risk sharing • Proactive care coordination • Proactive initiated accountable care • Budgeted and funded • Clinical integration	• Management, budget, staff in place • Best practices emerge • Program evaluation initiated	• Enterprisewide upside and downside risk • Culture of proactive, coordinated care

Source: IDC Health Insights, 2013

Sustainable accountable care programs must reach the repeatable stage to gain economy of scale and have the right intent (i.e., governance, funding), technology, people, processes, and data. Healthcare organizations will move through the maturity model stages at different rates of speed, and it is important to have all of the attributes mature at roughly the same pace. For example, investing in analytic technology without having trained analysts would not be a wise move.

Benefits

With the technology deployment and available data for population health management, it is possible for healthcare organizations to meet the goals of the Triple Aim. Historic attempts at new reimbursement methods (e.g., withholds, capitation) were not successful, in part because there was no data available to manage or track expenses or quality.

The integration of clinical data (EMR encounter, lab, pharmacy) and claims data (clinical and financial) offers the ability to create a 360-degree view of a patient's and population's health status. Increasingly, healthcare organizations are identifying nonclinical drivers of adverse events and are incorporating nonhealthcare data.

For example, an asthma patient who continued to return to the emergency room was discovered to have considerable mold and dust in his home, so a cleaning service was deployed to create a clean environment. As a result, the patient's ER use dropped to zero.

Also, new access to this rich information from multiple stakeholders and systems enhances the development of clinical best practices and collaborative decision making at the point of care.

Technology-enabled, proactive and coordinated care has been reported to improve efficiency and quality and help reduce costs. Further, improved physician satisfaction comes from access to the relevant, actionable data, thus providing support for effective clinical decision making.

Considerations

Critical to the success of technology deployment for accountable care are the accuracy and meaning of the clinical data. A couple of industry challenges are the relatively recent access to clinical data and the heterogeneity of data. It is critical to spend time up front understanding your organization's data before you begin analyzing it for selecting performance measures.

In early stages of deployment, the number of performance measures, particularly in organizations that have not historically looked at clinical quality metrics, should be limited. The process of defining and adopting performance measures is difficult, and many organizations do not spend enough time educating staff on what they are and how they can be used. Physicians are often critical of performance data and will attempt to discredit the information if they are not involved in the development and definition of analytics and objectives used within the organizations. Physicians should be educated on the importance of proper documentation.

Physicians are often shocked at how low they score on quality metrics because "they always do a foot exam on their diabetic patients." While that may be true, if the foot exam for a diabetic is not documented, it cannot be counted. Showing physicians the positive impact of their documentation, as well as the negative effect from the lack of documentation, raises initial quality scores. There is a challenge, however, in showing continued improvement once the data completeness issues are resolved, so a mechanism should be provided whereby physicians can "true up" the accuracy of patient data.

Many of the concepts of accountable care are new, particularly to providers, so time should be taken to educate and incentivize them to develop, encourage, and continue the desired outcomes.

Trends

The adoption of what IDC has defined as the "3rd platform" (cloud, big data and analytics, social, and mobile) will have a significant, positive impact on next-generation accountable care.

■ Most applications are being deployed to the cloud, which both reduces the operating costs of an organization and increases access to critical data. As the ecosystems of accountable care become more complex, the need for cloud deployment becomes even more critical.

■ Big data and analytics enable organizations to access new forms of data (e.g., unstructured data, demographic and census data), which provides a depth of information as well as creating context for data. More advanced analytic capability will unlock discovery and insights to support decision making throughout the continuum of care, unlike today where most organizations are simply reporting facts.

■ Organizations are just beginning to look at social media data as a way to determine patient satisfaction as well as detect public health outbreaks. Patients with similar conditions are creating chat rooms where they can discuss treatments, side effects, and outcomes. Healthcare organizations are in the research stage of determining how social media can be used in personalized care planning.

■ Mobile devices are increasingly being used for telehealth, patient and provider interaction, remote patient monitoring, and other forms of communication. Taking care management messaging to patients where they are creates a much more proactive engagement strategy. Improvements in patient engagement can lead to improved quality and improved health.

Conclusion

Meeting the objectives of the Triple Aim requires organizational transformation in addition to new technology. Healthcare organizations engaging in accountable care must acquire new skills, introduce new processes, and fundamentally change the way they deliver care. Many healthcare organizations believed that they could manage populations through the use of the EMR. However, they have discovered that technology specific to population health management is required and is evolving to meet their needs.

Access to rich, integrated claims and clinical data provides a more complete picture of the patient and allows assignment to interventions that will provide the best outcomes. Critical to meeting accountable care objectives are the workflow tools to create communication and engagement strategies and that provide collaboration among providers, care managers, and patients.