Consolidation, Clinical Integration & Transformation: Investing in Information Technology for an Accountable System of Care
About the Author

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Consolidation, Clinical Integration & Transformation: Investing in Information Technology for an Accountable System of Care
Introduction and Overview

Definition of a System

“A regularly interacting or interdependent group forming a unified whole to focus on a single purpose”

(Source: Merriam-Webster.com)

Few argue the point that the American health care “system” is broken. Today’s fragmented nonsystem is based upon the decades-old idea that physicians through a one-to-one relationship with the patient, will seek out and know the best care for each patient, and that hospitals through episodic, acute-care interventions are the centralizing point for the coordination of patient information. Waste, high cost, duplication, patient confusion and poor outcomes result from:

- poor communication and lack of accountability among multiple providers.
- patients and families coordinating their own care across multiple providers and care settings.
- limited primary care, including preventative medicine and management of chronic illness.
- an overall focus on the volume of health care services.

While accountable care organizations (ACOs), clinical integration networks and patient-centered medical homes are fast becoming the trend du jour, there is little doubt that a provider-led, population-based, coordinated care process that instills accountability for performance and measurement of quality, cost and patient experience is essential.
A vision for this accountable system of care describes a transformed future for our health care, one where:

- clinicians become health care coordinators, working collaboratively, and in partnership with patients to manage wellness and chronic disease.
- emphasis is placed on prevention and proactive management of chronic disease.
- patients undergo fewer tests and take fewer medications, reducing redundant and inappropriate care.
- care is convenient for patients and provided by highly reliable organizations.
- treatments align with patient care preferences, values, risk-taking thresholds, and physiology.
- decisions are evidence based; and variation, waste and duplication are continuously decreased.
- health care value improves, as quality, outcomes and cost reporting enable transparency.
- payers reimburse providers for quality rather than quantity.

Critical to this vision are the information technologies (IT) that will drive new ways of organizing and operating. Geography will no longer be a barrier, and through the innovative use of IT collaborative care teams will work to standardize processes, engage patients and increase efficiency and quality.

Yet, health systems and physicians are spending millions of dollars on electronic health records (EHRs) to qualify for Meaningful Use incentives. Yet, early predictions of at least $81 billion dollars of savings a year through the deployment of EHRs have not been realized. According to a January 2013 report by the RAND Corporation, the conversion to electronic health records has failed so far to produce the hoped-for savings in health care costs and has had mixed results, at best, in improving efficiency and patient care. David J. Brailer, M.D., who was the nation’s first health information czar, said he still believed tens of billions of dollars could eventually be squeezed out of the health care system through the use of electronic records. In his view, the “colossal strategic error” that occurred was a result of the HITECH incentive program. “The vast sum of stimulus money flowing into health information technology created a ‘race to adopt’ mentality—buy the systems today to get government handouts, but figure out how to make them work tomorrow,” Brailer said. (Source: New York Times, “In Second Look, Few Savings from Digital Health Records,” January, 2013).

The return on investment will not be realized from implementing EHRs and other advanced technologies on top of old care delivery models, organizations and structures. Rather, it will be achieved from “hard-wiring” existing clinical solutions in new ways and by enabling brand-new clinical care models to support an accountable system of care. While every health system will not become an ACO and every physician will not become an employee of a larger entity, those who understand the role of information technology in preparing for accountable systems of care will have a greater chance of survival and the potential to thrive.
This monograph explores three stages most health care organizations will go through as they build or become part of an accountable system of care. The concept of the care management platform is introduced and key information technology investments are identified for each stage. Finally, assessment questions are provided for trustees to critically examine their own organization’s progress at each stage.

An Accountable System of Care Maturity Model
Accountable care will require health care organizations to track and manage the care of defined populations against expected cost and quality targets across the entire spectrum of health care from prevention, to management of chronic diseases, through care interventions and ultimately through palliative and end-of-life care. The U.S. health care system is on the brink of a “data revolution.” As we move to interoperable health information technology solutions that link providers and patients across venues of care and analytical tools and predictive modeling become the norm, insights will drive new ways of organizing, operating and practicing medicine.

Today, a few Innovators such as Geisinger Health System, Cleveland Clinic, and ThedaCare are able to provide a depth and breadth of population health management through the sophisticated use of information. Advanced analytics coupled with robust customer relationship management and disease management tools foster team-based care and health optimization.
Early Adopters of clinical decision support, automated care protocols, integrated disease registries and patient engagement solutions are managing care transitions, building evidence-based care standards, coordinating care across various venues, and building analytical tools to facilitate clinical integration. Business intelligence tools that span hospitals, physician practices, post-acute settings, pharmacies, laboratories and other community stakeholders are increasingly important.

Pragmatic Adopters are focused on consolidation of hospitals and physicians. In some situations this may mean a merger of assets or employment of physicians. In others, partnerships are being formed to share services and build infrastructure for clinical integration and accountable care. From an information technology standpoint, this often means moving merged entities onto common electronic health records and enterprise resource planning and scheduling systems, deploying health information exchange technologies and patient portals, and developing mobile solutions.

Finally, Later Adopters are still focused on implementing information technology. Many of these organizations are focused on Meaningful Use attestation for eligible hospitals and providers and automating quality metrics. While EHRs are foundational to later stages, alone these systems are not sufficient in the long run.

Despite the fact that the majority of health care systems and providers are pragmatic or later adopters, increasing requirements for Meaningful Use and health reform will increase the importance and pace of adoption. The breadth and depth will vary by market. Some health systems will quickly move through each of the stages, almost simultaneously. Others will move more slowly through consolidation, clinical integration and transformation step-by-step. Regardless of the stage of adoption their organizations are in, trustees should understand the implications and investments required at each stage.

Investing in Tomorrow’s Care Management Platform

In health care, most information technology solutions have mirrored the organization they serve. Applications were originally designed to support specific departments. Over time enterprise health care information technology (HIT) vendors emerged to provide comprehensive offerings for the hospital or the physician practice. As EHRs evolved, they were designed to:

- support clinical care documentation within one enterprise.
- ensure proper billing and documentation.
- emphasize compliance and prevent litigation.
- ensure proprietary ownership of HIT “footprint” by vendor.
- mirror the paper record.
- engage the provider, not the patient.
- document specific events, not care over time.
In fact, the typical hospital information technology application suite looked similar to the hospital organization chart, as shown below.
Unfortunately, like the organizations they serve, these models are antiquated at best. An accountable system of care will require technologies that:

- effectively manage medications.
- organize problem lists.
- track and manage diseases for individual patients.
- communicate and track referrals or consultations.
- document transitions of care.
- manage patient encounters across long periods of time.
- provide “dashboards” and summary of care information.
- consolidate diagnostic information from a variety of providers.
- engage patients in self-health management activities.
- stratify patients according to risk.
- ensure use of best practice and evidence-based medicine across providers and the continuum of care.
- communicate a multidisciplinary plan of care and ensure accountability.
- coordinate services across a virtual care team.

As the industry defines and builds the accountable system of care, information technology tools must be aligned with new business models, care delivery frameworks and operating processes. The American Hospital Association has conservatively estimated start-up costs for developing an ACO to be between $5 and $12 million, with ongoing maintenance between $6 and $14 million per year. (Source: AHA, The Work Ahead: Activities and Costs to Develop an Accountable Care Organization, April, 2011). A recent Black Book Rankings survey reveals that 96 percent of organization executives are in the active acquisition process of several crucial ACO data solutions. In total, the 302 developing and planned ACOs will spend $500 million on health IT systems in the first year. The survey put small ACO start-up costs at more than $1 million for technology alone, while large ACOs will spend up to $4 million. (Source: Fiercehealthit.com, “ACO Start-up IT Costs Pegged at up to $4M,” September, 2012).

As the industry moves along the accountable system of care maturity model, technologies will evolve as new accountable care management platforms are built on more progressive technologies than today’s legacy HIT systems.
For trustees, it is important to understand that full deployment of accountable care management platforms will be cost prohibitive for many health care provider systems, and will require collaboration and scale across provider sites. While tomorrow’s strategy and role in the accountable system of care are unknown for many, alternate pathways should be considered when investing in information technologies at each stage. Whether your organization leads ACO development or is a supporting player within a larger enterprise, today’s decisions will lay the groundwork for tomorrow’s return on investment, as discussed below.

**Governance at Each Stage**

Trustees must balance strategies focused on traditional fee-for-volume payment while preparing for future fee-for-value reimbursement and development of an accountable system of care. Governance will require a unique combination of vision and innovation to deal with the pace of change. Understanding the investments required to build tomorrow’s accountable care management platform and assessing your organization’s progress at each stage are essential.
Consolidation

“Hospitals are coming together in systems and systems are beginning to talk to systems. What happened to airlines, what happened to supermarkets, what happened to bookstores? They all consolidated, they brought scale so they could drive efficiency. I think that’s what’s happening in healthcare right now. It’s not just about costs and margins, it’s the increasing complexity of the healthcare business.”

(Source: Delos Cosgrove, M.D., CEO, The Cleveland Clinic)

Horizontal (hospital-hospital) and vertical (physician-hospital) consolidation are occurring at a rapid pace across the industry in an effort to prepare for value-based reimbursement. The number of hospitals in merger and acquisition deals in 2012 rose to 352, up from 212 the previous year. (Source: Modern Healthcare, “Taking a Different Path”, January, 2013) According to Merritt Hawkins, a retained executive search firm, over 75 percent of physicians will be employed by hospitals by 2014. (Source: Fierce Practice Management, “Physician Employment Could Hit 75%, Eclipsing Private Practice”, July, 2012). Some analysts predict that most states will ultimately have only two to three major health systems.

While most providers continue to focus on Meaningful Use of EHRs, consolidation highlights the need for integrated data across multiple acute, ambulatory, post-acute and physician environments. Performance management analytics emphasizing cost accounting
and quality measurement are a primary focus. Creation of data governance structures and program management offices to ensure coordination of large-scale initiatives ensures consistent oversight. Physician informatics leadership should be established to focus on EHR adoption and development of informatics functions.

### Consolidation—Assessment Questions

| S | Does your organization have an integrated IT strategy for acute, ambulatory post-acute settings and physicians that addresses hospital mergers and partnerships, as well as plans for employed and affiliated physicians? |
|   | Is the strategy aligned with the long term enterprise strategy? |
|   | Is the strategy patient centered? |
|   | Are the strategies more robust than Meaningful Use compliance? |
| S | Do physician alignment and patient-centered care strategies incorporate information, technology and quality measurement requirements? |
| S | Are physicians leading informatics initiatives within the organization; does the organization have more than “one doc in IT”? |
| S | Does the board get monthly reports on IT implementation results and planned ROI? |
| S | Do consolidation plans incorporate appropriate due diligence on the impact of IT consolidation and integration? |
| S | Are LEAN Six Sigma efforts “hard-wired” and do IT deployments consider LSS opportunities? |
| S | Have investments been made in enterprise performance management analytics tools such as cost accounting, service line planning and quality benchmarking? |
| S | Does an enterprise program management office manage strategic and information technology projects? |

### Clinical Integration

“Clinical integration is the extent to which patient care services are coordinated across people, functions, activities, and sites over time so as to maximize the value of services delivered to patients.”


Clinical integration is more difficult than consolidation. While consolidation is structural, clinical integration involves a significant cultural change. Rather than continuing to work autonomously, clinicians pool infrastructure and resources; develop, implement and monitor
protocols; understand best practices; and design standardized processes to provide higher quality care in a more efficient manner. Additionally, emphasis is placed on the ability to coordinate care for patients with chronic conditions through common care plans, management of transitions of care and focus on the patient experience. Finally, health systems will deploy new approaches to prevention, wellness and disease management.

Information technology is the backbone of clinical integration and the networks that support it. Health information exchange, “smart” EHRs, patient engagement technologies, communication tools and patient registries are just a few of the many tools that will be deployed to support this stage.

### Clinical Integration—Assessment Questions

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<tr>
<th>Question</th>
<th>Answer</th>
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<tr>
<td>Has leadership created “information” governance structures to focus on data stewardship and standards, data integrity and data collection accuracy?</td>
<td>Yes</td>
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<tr>
<td>Has an informatics function, with physician leadership, been created? Does it have specific plans for technology adoption and analytics?</td>
<td>Yes</td>
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<tr>
<td>Is the health information strategy reflective of long-term plans for clinical integration and population health management?</td>
<td>Yes</td>
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<td>Does the organization have physician working groups focused on clinical conditions and collecting information?</td>
<td>Yes</td>
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<tr>
<td>– Care teams working to create chronic care guidelines and protocols</td>
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<td>– Primary care focused on IT needs within patient-centered medical home (PCMH) development</td>
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<td>– Specialties collaborating with PCMH to design care management plans and working with each other around specific specialty institutes/service lines</td>
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<tr>
<td>– Registries playing an increasingly important role—management of chronic conditions</td>
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<tr>
<td>– Early stage management of referrals and physician attribution</td>
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<td>– Development of real-time clinical decision support tools</td>
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**Transformation**

“The goal of Population Health Management (PHM) is to keep a patient population as healthy as possible, minimizing expensive interventions such as ED visits, hospitalizations and procedures…PHM focuses on high risk patients who generate the most costs while systematically addressing the preventative and chronic care needs of every person.”

(Source: Institute for Health Technology Transformation)
Population health management will be the cornerstone of accountable systems of care. Patients and consumers will be stratified by geography, age, employer, disease, lifestyle and a variety of other factors that may impact cost, quality and other outcomes of care. A variety of strategies including wellness incentives, demand management, disease management, and catastrophic care management, are provided to individuals falling within defined population groups. Coordination of care across different venues is essential to ensure care plans and protocols are acted upon and duplication reduced.

To support population health management the accountable care management platform will provide a sophisticated array of tools that integrates data from disparate data sources including EHR information from providers across the care continuum; medication, lab and diagnostic reports; and claims data. Complex algorithms from business intelligence systems will be applied to a variety of clinical and financial rules to identify and stratify high-risk members of specific population groups. Communication tools between all stakeholders across the accountable system of care will improve decisions, and ultimately cost and quality outcomes. Value-added services will be layered on top of today’s health information exchanges to support activities such as revenue and risk management, customer relationship management, and chronic disease decision support.

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<td><strong>S</strong> Has the organization begun to think about how it will create, deliver and capture value in an accountable system of care?</td>
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<td><strong>S</strong> Does the organization have a methodology for innovation, care delivery redesign and reengineering?</td>
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<td><strong>S</strong> Does a strategy exist for business intelligence (BI)?</td>
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<tr>
<td>– Investment in BI systems, information frameworks and data structures and enterprise data repositories</td>
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<tr>
<td>– Specific plans for integration of clinical, financial and business data</td>
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<tr>
<td>– Longer term goals for innovation and transformation</td>
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<tr>
<td><strong>S</strong> Has the health information exchange (HIE) strategy evolved beyond an IT focus, to define value added services that will be layered onto connectivity? Does a business plan exist that measures the ROI, features and functions of key services such as customer relationship management, population analytics, disease management, etc.?</td>
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<tr>
<td><strong>S</strong> Has the organization created a strategic office of innovation/change?</td>
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<td><strong>S</strong> Is the organization in discussion with nontraditional partners such as pharmaceutical companies, payors or other regional stakeholders?</td>
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<td><strong>S</strong> Has the organization explored the cost of “big data” and does it have plans for working with others given the cost prohibitive nature of this effort?</td>
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Conclusion
As boards partner with their organization’s leaders to move through the stages of consolidation, clinical integration and transformation, trustees will have to think differently about their role. Transition to an accountable system of care will not happen overnight. Fundamentally, improving the health of populations takes time. Recognizing the “game-changing” opportunity presented by accountable care management platforms and focusing on what your organization can do today to prepare for tomorrow will go a long way in setting the stage for patient-centered, connected care.

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