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Capitalizing on Healthcare Innovation and Transformation

Conquer Disruptive Change with Data and Applied Health Economics

The buzzwords are familiar: innovation; transformation; accountable care; consumer-oriented care; healthcare integration; population health management. What do they mean when spoken together? **Disruptive change** in your organization that can be a gift-wrapped opportunity to make necessary changes or a challenge that feels like a runaway train bearing down on you and your team every day.

Earlier Trexin Insight pieces have described the most prevalent drivers of disruptive change. Let's review with respect to what is happening in healthcare:

Technological innovation ☒

Government regulation ☒

Organizational restructuring ☒

Business-model shifts ☒

The Role of Innovation and Transformation in Disruptive Change: A Partial Root Cause Analysis

ALL of these disruptive change drivers are fully at work in today's healthcare sector and are likely to be impacting your team and your workload on any given day of the week. In crafting a strategy to address healthcare's disruptive change, it is important to consider current innovation and transformation initiatives and their system-level causes.

The Quest for Triple Aim

Though the phrase is in regular use throughout the healthcare sector today, the concept of the Triple Aim was developed in 2007 by the Institute for Healthcare Improvement against a

backdrop of unsustainable growth in U.S. per capita healthcare spending (annual increases of between 6.3 and 9.7% between 2001 and 2007)[1] and mounting evidence that quality, outcomes and patient experience were lagging behind those of other industrialized countries.

At its core, the Triple Aim seeks to improve the health of the U.S. population through three simultaneous pursuits: improving the patient experience of care (not just "patient satisfaction"); improving the health of populations (and sub-populations within them); and reducing per capita cost of healthcare (not just slowing the rate of growth, but *reducing spending*). It is an incredibly ambitious agenda that has been incorporated into Medicare and Medicaid, which cover more than 118 million Americans[2], and federally-funded health initiatives. The Triple Aim has gained influence in provider organizations and commercial health plans as well. Any one of these three pursuits would be a significant challenge for the healthcare sector, but given that all three are moving forward simultaneously in an effort to achieve system transformation, disruptive change is the obvious result.

The Learning Healthcare System Movement

In its landmark 2012 report "Best Care at Lower Cost: The Path to Continuously Learning Health Care in America,"[3] the Institute of Medicine outlined three imperatives that underlie the key drivers of disruptive change in the current U.S. healthcare sector: the need to manage rapidly increasing complexity; the need to achieve greater value in healthcare; and the need to capture opportunities from technology, other industries and policy. The report recommended a series of pathways to a continuously learning health care system capable of using evidence-based knowledge to achieve better quality, safety and value. All of these pathways are applicable not just to the system as a whole, but at an individual organizational level as well. The first pathway identified is "generating and applying knowledge in real time" which really addresses any healthcare organization's need for the right data in the right place at the right time and actionable data analytics that inform clinical and administrative decisions within the organization.

The U.S. healthcare system has made significant progress in building the foundation for actionable data over the past decade. Electronic health records adoption by office-based physicians increased from 17% in 2003 to 78% in 2013.[4] Similarly, almost 60% of acute care hospitals had adopted at least a basic electronic health record system by 2013;[5] up from just 12% as recently as 2009. When combined with the billing, monitoring and practice

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[1] http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/tables.pdf.
[2] http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MedicareMedicaidStatSupp/2013.html.
[3] http://iom.edu/Reports/2012/Best-Care-at-Lower-Cost-The-Path-to-Continuously-Learning-Health-Care-in-America.aspx.
[4] http://www.cdc.gov/nchs/data/databriefs/db143.pdf.
[5] http://www.healthit.gov/sites/default/files/rtc_adoption_and_exchange9302014.pdf.

management systems already deployed in great depth in hospitals and ambulatory settings, the volume of digitized data, both structured and unstructured, is at an unprecedented level. The first step on that pathway to "generating and applying knowledge in real time," therefore, has already been taken. Taking great volumes of digitized data from multiple information sources and translating them into knowledge, however, requires analytics that focus on what healthcare actions need to be informed by data and what questions need to be answered. For many healthcare organizations, those questions are coming directly from yet another disruptive change: accountable care.

Accountable Care

Recent national growth in the accountable care model has been significant. With early incarnations dating to just over 10 years ago, there are currently more than 600 accountable care entities operating in the U.S.[6] The composition, size, organizational structure and financial models of accountable care organizations vary widely, but these provider-led entities are all engaged in managing the care of a defined patient population through contractual arrangements with public and private payers. Many are partially or fully at risk for the cost of care for their defined patient population, and as a result, need actionable data from multiple clinical information systems and advanced analytics to aggregate multiple types of data from multiple systems to predict and manage risk.

Demand for these analytics capabilities at the accountable care organization and provider level will continue to increase. A recent nationwide study of accountable care organizations found that although the majority have technology infrastructure to support quality measurement, population health management, and payment transactions, few have the data and analytics capability to support risk management and patient engagement.[7] Although accountable care organizations that participated in the study indicated that robust analytics are essential to their success, 100% of them cited access to data from external organizations as a barrier to those analytics. This finding demonstrates there is much work to be done in developing the data infrastructure and advanced knowledge to respond to the disruptive change of accountable care.

Actionable Data: the cornerstone of healthcare innovation and transformation

The availability of clinical and administrative data within healthcare organizations, has in fact, exploded in recent years, resulting in challenges not of insufficient information, but in prioritizing and organizing it for action. Adopting **applied health economics**, which Trexin defines as the focus on healthcare value as measured by both spend and benefit, can help healthcare organizations capitalize on what is truly relevant and actionable within those vast

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[6] http://healthaffairs.org/blog/2014/01/29/accountable-care-growth-in-2014-a-look-ahead/.
[7] http://www.ehidc.org/resource-center/reports/view_document/381-report-supporting-accountable-care-critical-information-technology-components.

stores of data. Applied health economics is an extremely useful approach in responding to the disruptive change generated by the Triple Aim, evolution of a learning healthcare system and accountable care.

It is important to note that a critical objective of innovation and transformation policy is increasing transparency in the healthcare system. This is perhaps the single, most difficult cultural change in the healthcare industry where holding onto data and knowledge is viewed as a competitive advantage, and where protecting personally identifiable patient health information from breach and misuse is a primary concern. Long-term solutions to the challenges in achieving system-wide transparency are still evolving, but the advent of data transparency within organizations is well underway.

Conquering disruptive change and forging a path for an organization in the era of healthcare innovation and transformation can be daunting, but with the application of actionable data and an understanding of applied health economics and its role in implementing change, that task can be accomplished.

This TIP was written by Laura Zaremba, who specializes in health information technology strategy and policy and the management of organizational change across organizations. Laura welcomes comments and discussion on this topic and can be reached at laura.zaremba@trexin.com