Healthcare delivery and reimbursement is undergoing transformational change. Provider organizations are charged with redesigning how they function. With the emphasis on achieving the "Triple Aim," the transition is difficult and disruptive for all healthcare entities, even those with deep financial and intellectual resources. For rural and independent community healthcare organizations, historically operating with limited assets, the challenges are greater than their urban counterparts.

Table 1: Institute for Healthcare Improvements “Triple Aim”

Treating episodic events has shifted to managing wellness within the reformed healthcare delivery system, with patients charged with taking an active role in decisions that affect their health. Patients and providers expect a shared investment for improving performance and reducing the overall cost of care. In fact, patients will bear a greater portion of the cost of care delivery through larger co-pay and deductible amounts.
Provider reimbursement, moving from fee for services to value-based purchasing, will be rewarded for high quality care, as defined and measured by National Quality Forum’s (NQF Measure Applications Partnership (MAP), and penalized for poor outcomes. In the future, providers will be expected to shoulder greater and greater risk. The Centers for Medicare & Medicaid Services (CMS) announced on Jan. 26, 2015 that it will advance the pace of the shift from fee for service reimbursements to one centered on outcomes and performance. The Department of Health and Human Services (HHS) “has set a goal of tying 30 percent of traditional, or fee-for-service, Medicare payments to quality or value through alternative payment models, such as Accountable Care Organizations (ACOs) or bundled payment arrangements by the end of 2016, and tying 50 percent of payments to these models by the end of 2018”. Concurrently, the shift from “volume to value” is also gaining momentum beyond Medicare and Medicaid. Private payer organizations are also entering into managed care agreements with provider organizations.

Rural and provider organizations from underserved areas must establish a plan that enables participation in this transition. The unattractive alternative is to become “locked out” of a significant portion of care delivery and the loss of revenue that accompanies it.

To participate in this transformation, rural and underserved healthcare organizations have unique challenges where they need:

- Health information technology for the new delivery method. Because of high cost, those features and functions have generally been restricted to all but the largest and most affluent integrated health systems.
- Adequate patient population to participate in today’s new CMS reimbursement model, known as “Value Based Reimbursement.”

Participation in (emerging) reimbursement programs from private payers by rural & underserved healthcare organizations share similar obstacles. Without a solution, these organizations have no way to recover lost revenue from declining reimbursements and lower inpatient admissions.

**Rural and Underserved Healthcare Organizations Lack the Technology Resources Required to Participate in the Reformed Healthcare Delivery System**

Before the HITECH Act was passed along with The American Recovery and Reinvestment Act of 2009, the number of healthcare organizations with digital health IT resources was limited to the most affluent and sophisticated integrated delivery systems. This was to be expected, because the cost for this technology was far beyond the means of most provider organizations. Accordingly, the systems available were designed to meet the needs of the target market – less than 5% of all hospitals.

The HITECH Act changed everything. The new legislation mandated that all hospitals and clinical practices – from the smallest 6-bed rural hospital to the very largest
integrated healthcare system - transform from paper to electronic health records. Quickly, new market entries rushed to meet the demand for affordable technology.

As part of the mandate, demand was fueled by a “carrot and stick” approach on the part of the government. Hospitals and “Eligible Providers” purchasing a “certified electronic health record (EHR) system” and achieving meaningful use were to be awarded incentives carved out of the stimulus package for that purpose. Alternatively, those organizations and providers who didn’t attest to meaningful use were to be levied Medicare and Medicaid payment adjustment beginning in 2015.

Hospitals, other than those with critical access hospital designations, were eligible to receive incentives of $2 million, plus an additional amount based on annual Medicare and Medicaid discharges. Critical access hospitals were to be reimbursed for “reasonable cost.” Physicians, who were classified as “Eligible Providers” were reimbursed at approximately $44,000 each.

Highly important to this discussion is the caveat that physicians who were employed by hospital organizations were not classified as Eligible Providers. Many months later, this was amended to include physicians who were employed by critical access hospitals.

The new applications being developed for this new market opportunity were built to meet the criteria set forth in the HITECH Act. They were also offered at a small fraction of the cost of existing EHR systems. As such, they were specifically designed without frills and were focused on meaningful use requirements. Because the incentives for hospital applications were only available for their in-patient encounters, the systems were designed and certified only for in-patient use. Hospital in-patient and clinical ambulatory EHR systems have different functionality and require separate Office of the National Coordinator -Authorized Testing and Certification Bodies certifications.

Because of this scenario, almost all of the EHRs installed in hospitals were limited to in-patient functionality. Later, those hospital organizations also owning clinics, and desiring to adopt digital health records for their clinics, were required to deploy an ambulatory EHR from a different vendor. As a result, even when an interface has been built between the two systems, patient data remains in separate data silos. The few hospitals in this group who do have integration between in-patient and ambulatory settings most often lack other functionality needed to participate in the reformed healthcare delivery system.

Technology Requirements Needed for Reformed Healthcare Delivery System

To participate in the new reformed healthcare delivery system, provider organizations will be required to either independently form an accountable care organization (ACO) or join one created by a collaborative group of organizations with a similar plight.

Urban and suburban hospitals and provider groups may have adequate patient populations within their footprint that allows them to act independently (the minimum number of Medicare patients needed for a Medicare Shared Savings Plan is 5,000).
Generally, organizations in rural settings will need to enter into a collaborative relationship in order to achieve the required patient number.

ACOs formed as the result of collaborative relationships merit additional consideration. Upon creation, the new entity will be comprised of a number of inpatient and ambulatory organizations, each independent and each with its own IT system. For the collaborative group to succeed, members will need to:

- Embrace the requirement to move to a common data platform with advanced data reporting and care delivery features.
- Identify members within the same geographic area so that patients can receive care from a range of members in “the network” and stay within the network.

In the new healthcare delivery paradigm, the shift from treating episodic events to one of managing wellness among the population involves two separate initiatives, each with different criteria.

1. Healthy patients
   a. Enroll them in prevention programs with the aim to prevent conditions or diseases from occurring.
2. At-risk patients who are suffering from one or more chronic illnesses.
   a. Enrolled in managed care programs. Chronic care relates to those conditions that are acute or chronic for a patient (lipids, anti-coagulation, diabetes, and congestive heart failure). In this case, patients have their conditions managed to prevent further illnesses or complications that generally require frequent in-patient admissions.

The technology for these initiatives must first identify the patient’s current health category. Once identified, patients are then enrolled in an appropriate treatment program or “care plan.” Each care plan is populated with treatments utilizing “best medical practices.” When treating patients with chronic illness, the organization must evaluate internal resources to determine the number of conditions that can be effectively managed, as each one requires a separate and distinct strategy.

The other components of care management requiring technology are the establishment of goals and timelines. Triggers are created that alert providers to events which may require interventions – all with the aim of preventing the need for further complications requiring ED visits and inpatient admission.

Finally, care is delivered to patients enrolled in the various plans by integrated care teams. The membership of each care team includes the primary care physician and clinical specialists required to deliver the treatments specified in the individual care plans. Additionally, the care team will likely include a care coordinator with the primary responsibility of keeping the patient compliant with the care plan and other administrative functions.
The shift from treating episodes of care to that of managing wellness mandates the change from how care is delivered. Individual providers no longer deliver care independently, but as part of an integrated care team. Below is a discussion delivered by participants drawn from the Best Practices Innovation Collaborative of the Institute of Medicine Roundtable on Value & Science Driven Health Care:

“Health has not always been recognized as a team sport, as we have recently come to think of it. In the “good old days,” people were cared for by one all-knowing doctor who lived in the community, visited the home, and was available to attend to needs at any time of day or night. If nursing care was needed, it was often provided by family members, or in the case of a family of means, by a private-duty nurse who “lived in”. Although this conveyed elements of teamwork, healthcare has changed enormously since then, and the pace has quickened even more dramatically in the past 20 years. The rapidity of change will continue to accelerate as both clinicians and patients integrate new technologies into their management of wellness, illness and complicated aging. The clinician operating in isolation is now seen as undesirable in healthcare, an individual who works long and hard to provide the care needed, but whose dependence on solitary resources and perspective may put the patient at risk.”

Table 2: “Core Principles & Values of Effective Team-Based Healthcare”

In addition to supporting the creation and administration of care plans, technology requirements also include the necessity of being able to easily create and administer the care teams. Vital to the success of the team is communication between team members and between providers and patient. A key component of the technology is a secure messaging system for that purpose.

**Summary**

Rural and healthcare organizations from underserved locations must take steps that enable them to participate in the change from the current fee for service reimbursement system to the new paradigm of value. Otherwise they face the risk being left behind. Those organizations with insufficient populations to independently make that transition will either need to enter into collaborative agreements with other area entities in similar circumstances or otherwise become affiliated with someone else.

Organizations banding together and aggregating a sufficient number of patients will be required to adopt a common patient data platform, necessitated for the purpose of
meeting the mandates for care management, team-based care delivery and quality measure reporting.

The organizational changes required to achieve the operational and cultural shifts described in this document are transformational in nature and will require determination and dedication on the part of stakeholders. In addition to the technical components described here, substantial organizational change will be required. The time required to develop new relationships, establish the requisite policies, identify and deploy the required technology, and assimilate these components into a smoothly functioning entity will be significant. If rural and provider organizations wait until forced to take action, the marketplace will have moved on without them.

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