Embracing population health management

How seven innovators are pioneering value-based care
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As we move along the continuum from volume-based to value-based care, not all providers face the same challenges, although there are critical areas of overlap. By looking more closely at acute care, post-acute care/rehabilitation management and chronic disease management providers in this white paper, we hope to spotlight areas of innovation that can spark innovation in similar organizations seeking to improve performance, outcomes and patient well-being in the age of value-based healthcare.

**Innovators in acute care**

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Dartmouth-Hitchcock Medical Center in New Hampshire is home to the fourth-oldest medical school in the United States and is respected around the world for its research and evidence-based clinical protocols. Like all U.S. healthcare providers, Dartmouth-Hitchcock is challenged to deliver high-quality, personalized care at a lower cost. Dartmouth-Hitchcock led a team of experts from a variety of industries to reimagine healthcare from the ground up.

**Embracing population health management**

The march toward value-based healthcare and population health management is driving significant change across the larger healthcare ecosystem. The urgency to affect lengths of stay, left-before-being-seen rates and other measures — while simultaneously improving patient outcomes and satisfaction — is forcing a wave of innovation.

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The team’s vision?

A sustainable health system that puts patients and their families first. The focus is on mental and emotional health as well as physical health, and its rewards are value- rather than volume-based.

The idea is to provide ever-present, highest-quality, reasonably-priced, proactive care that individuals want and need, often within the comfort of their own homes. Care team members are armed with actionable data that enables personal, individualized care with an emphasis on illness prevention.

The result of this vision, ImagineCare, required a significant investment by Dartmouth-Hitchcock in infrastructure and new technologies, including remote health monitoring and telehealth. Also central to the success of ImagineCare is DXC Health360™, a solution that enables a more personalized, coordinated care experience.

ImagineCare uses machine intelligence that enables providers to work within their Health360 platform to develop unique care plans for each patient. Nurses and health coaches can monitor each person’s health status around the clock using data from sensors and devices to respond proactively in real time. Patients receive reminders, encouragement and dynamic updates to their care plans, interventions that can ultimately reduce unnecessary emergency room visits, disease recurrence and other costly factors. As a result of their success, ImagineCare was acquired and is providing leading services to healthcare organizations worldwide.

Improving care management and care services coordination at an ACO

As one of the first accountable care organizations (ACOs) operating under the guidelines outlined by the Centers for Medicare & Medicaid Services (CMS), this health system sought to deploy a new infrastructure that would allow its care managers to deliver higher quality, better-coordinated care to meet the needs of all the people associated with the ACO, primarily Medicare patients.

Although the four hospitals in its system specialized in acute care, its approach needed to extend beyond treating patients only when they were ill. This would include care teams both inside and outside of the ACO, from office staff to physicians and nurses, who work closely together to create tailored care plans for each patient. These personalized, coordinated care plans would not just provide patients with the care needed during sickness, but instead would enable them to “be well, get well and stay well.”

ACO leadership wanted a system that could “listen to the data to see what’s happening” and create timely, targeted alerts. After a patient was admitted to the emergency room due to a fall, for example, the system would alert the care manager, prompting engagement with the patient’s primary care physician for the care required following the patient’s return home. The leadership also wanted the system to be capable of triggering many other alerts, including preventive care requirements, prescribed follow-up care and annual wellness visits.

After searching extensively for an “action” system to interact with its thousands of attributed lives to improve care quality, satisfaction and cost, the ACO chose Microsoft Dynamics and DXC Technology to tailor the solution to its precise requirements. These requirements included publication of alerts, tracking patient enrollment, creating patient assignments for care managers and customizing patient registries.
Using an agile approach, the ACO worked with DXC to refine requirements for multiple population segments, disease states, data sources for integration and important functions for care coordinators.

The pioneering ACO now supports more than 50,000 patients, and the organization is on track to meet its clinical goals, including metrics for certain chronic conditions and achieving higher patient engagement.

**Treating patients like customers in a healthcare setting**

How can treating patients like customers improve their experiences? This question was answered by using DXC Health360 at an innovative, large, nonprofit health system that includes more than 20 hospitals and a health plan with more than 3 million covered lives. The hypothesis was that having a unified record for each patient, combining preferences and socioeconomic data, along with information contained in its existing electronic medical record (EMR), would enable the system to provide a more personalized experience.

The first step in the journey required the health system to break down silos that typically isolate different parts of the system from one another. During implementation, records for more than 5.6 million patients were loaded into Health360, including information on the 3 million members of the system’s health plan. Integrations were needed between Health360 and the EMR, admission, discharge and transfer (ADT) and claims systems to give patient-access team members, billing staff, schedulers and other nonclinical staff the information they required to make and sustain meaningful relationships.

Each day, more than 600,000 rows of data flow bi-directionally through Health360. New claims and patient information flow into Health360, while updated patient data flows from the solution into the appropriate healthcare IT system. As a result, patient access team members and other nonclinical staff have real-time data that’s updated daily, while claims and medical staff have constantly updated demographic information.
By integrating EMR data with other relevant information, DXC Health360, built on Microsoft Dynamics 365, breaks down the silos among departments, giving nonclinical staff the ability to offer personalized services to their patients/customers.

DXC Health360 helped the health system create a patient “golden record” that can be used by staff to personalize relationships with patients/customers and help smooth access to care. At each contact, a patient is treated with a highly personalized experience and world class customer service in a healthcare setting.

**Innovators in post-acute care**

Post-acute providers have the opportunity to serve their patients over the long-term, not just during an acute episode of care. A proven, cloud-based population health solution lets them establish meaningful, proactive, personalized relationships, not only with patients but also with the patients’ support network of family and loved ones.

Assistance in Recovery (AiR), a leading provider of behavioral health intervention and recovery assistance, has set the standard of intervention practice and strives to be the leader in the continuum of behavioral healthcare, education and advocacy around the world. It understands that addiction is a family disease and treats it as such. Its proven program provides supplemental guidance and support to clients and their families, helping them navigate the traditional treatment model, move through each stage of recovery successfully and avoid relapse.

Because AiR’s services are extremely customer-intimate, and client relationships with their families and other support structures are core to the process, AiR wanted a cloud-based care management solution built on the Microsoft Dynamics 365 platform to manage all interactions with, and between, involved parties. A master set of customer data already in the system gave it the foundation for building individual intervention and support plans that can be managed efficiently within the Health360 solution. Every touchpoint is captured and managed proactively within the platform.

The solution is already having significant results. Care team members now have a 360-degree view of friends, family and others who are collectively invested in a patient’s recovery. The team members also have the tools to manage all those relationships and the personalized care plans for each person they’re helping to coach through recovery. This has led to greater care team efficiency, which is manifested in higher member-to-client ratios and improved client satisfaction scores.

The power of Health360 is achieving phenomenal results. One of the most impressive results for AiR is its long-term continuous sobriety outcome. AiR has been able to increase the 12-month continuous abstinence rate of patients to 72 percent, compared to the national average abstinence rate of 35 percent.

Barnes Healthcare Services began as a small pharmacy in Georgia in 1909, and is now one of the largest privately owned post-acute care providers in the country. Among its offerings are a range of clinical in-home care services, including continuous, long-term patient engagement and management that drives adherence to care plans beyond hospitals, physicians, skilled-rehab facilities and home health agencies. The Healthy at Home team, composed of visiting clinicians, oversees patients daily for the first 30 days after discharge from a medical facility to ensure that they remain “healthy at home.”
Barnes focuses on providing exceptional patient care across the continuum while reducing the burdens of chronic care management and readmissions. To effectively and efficiently manage this care across geographically dispersed patients, Barnes relies heavily on devices and what many now call the “internet of things” (IoT). From blood pressure cuffs and pulse oximeters to weight scales, the Healthy at Home team can closely monitor each patient for critical changes that may require intervention, even when the patient is remote.

Data from devices is integrated into an innovative platform that dynamically generates targeted questions that require a patient’s input. This is done via a tablet provided by Barnes. This capability is enabled by Health360, which is built on Microsoft Dynamics 365 and uses Microsoft Azure data services. The solution aggregates data, as well as analyzes and tabulates symptom scores. These scores help clinicians identify patients who are at risk and require immediate medical attention and indicate which patients are responding well to their treatment plan and no longer need daily monitoring after 30 days.

The Barnes IoT approach delivers a quality care experience while demonstrably reducing readmissions. Monitoring is daily, if not constant, yet clinicians don’t need to be there each day. Based on this success, Barnes is now using its Health360 solution for chronic care management and data generation for nonclinical purposes, including producing data on success rates for referrals that help secure new partnerships with providers.
Reinventing physician relationship management at one of the nation’s largest rehabilitation organizations

One of the largest post-acute care organizations in the United States operates rehabilitation hospitals, clinics and home care services in more than 30 states. Its nationwide rehabilitation liaisons cultivate referrals by building stronger relationships with physicians, social workers, case workers and patients at 95 inpatient rehabilitation hospitals and six long-term acute care hospitals across five regions. Liaisons are out in the field every day, relying heavily on their mobile devices to exchange referral information with the corporate office.

Generating referrals requires a strong sales and marketing structure and discipline. Tightly coordinated field and corporate marketing enables timely and consistent communications, anticipation of future needs and the ability to deliver relevant information to prospective clients when and how it’s needed.

For this large rehab organization, goals also included automating the capture of patient referral source information and improving the timeliness of patient transfer between facilities and specialists.

The organization needed to arm its liaisons with tools to more efficiently and effectively serve and communicate with providers who refer patients for care. The answer came from DXC, which implemented Microsoft Dynamics 365 including functionality from the DXC Health360™ Care Network module of Health360. With this new functionality, physician liaisons now have mobile tools to help achieve aggressive goals for physician referrals and reduce patient transfer time.

In the field, liaisons access the central database remotely via a mobile device or tablet. This improves visibility into physician and patient relationships and streamlines the flow of referral data between hospitals. It’s now much easier to identify patients and other referral sources, including the ability to connect with them by using highly relevant, personalized messaging.

Health360 is reinventing physician relationship management by uniting the power of a highly mobile field force. The Health360-driven platform also offers valuable interconnectivity and flexibility that extend into the future. Plans call for implementation of Microsoft Azure™ and Cortana Analytics as the organization continues to push the boundaries of what’s possible in the increasingly competitive healthcare marketplace.
Innovators in chronic disease management

The life expectancy of an average person has more than doubled in the last 150 years, thanks to medical advances and more accessible primary care. The result is an increasingly aging population that is prone to more long-term, chronic conditions. Treating chronic illnesses is one of the most daunting challenges facing the U.S. healthcare system, which needs to focus on the unique needs of chronically ill people as much as it does on acute and primary care needs.

One in 10 American adults, or more than 20 million, is said to have some form of chronic kidney disease (CKD), according to the U.S. Centers for Disease Control and Prevention. Underlying complications from CKD and often multiple comorbidities lead to high rates of hospital admission and readmission, and contribute to staggering costs systemwide. This puts CKD squarely in the crosshairs of the Centers for Medicare & Medicaid Services (CMS). CMS strongly advocates for enhanced care coordination that provides a more patient-centered care experience and improved outcomes.

One of the largest providers of dialysis and CKD management services in the world operates hundreds of dialysis centers and vascular clinics in the United States. It serves a large part of the CKD population, including those who suffer from end-stage renal disease (ESRD), which is characterized by total and permanent kidney failure. In fact, it is one of 13 ESRD Seamless Care Organizations (ESCOs) participating in the Comprehensive ESRD Care Model.

The ESRD Care Model is designed to identify, test and evaluate new ways to improve care for Medicare beneficiaries with ESRD. CMS now partners with healthcare providers and suppliers to test the effectiveness of new payment service delivery models in providing beneficiaries with patient-centered, high-quality care. The program encourages systems to provide coordinated healthcare that goes beyond their traditional roles in treating ESRD, both in and outside of the dialysis clinic.

With more than 200 dialysis facilities, this provider is considered a large dialysis organization (LDO), making it eligible to receive shared savings payments, as well as exposing it to shared losses. This risk/reward paradigm creates a strong incentive to deliver highly efficient, effective and personalized care. There's potential for both significant financial upside and downside.

To better manage its risk and maximize its upside, the organization partnered with DXC on a Health360 pilot implementation. It's demonstrating that, when fully deployed, the Health360 solution can indeed provide more personalized care with fewer staff. Equally important is that the solution can help manage an entire continuum of care, not just dialysis and CKD management, by delivering a highly personalized experience that measurably improves health and well-being at a lower cost.
The future of healthcare

The challenges faced by acute care, post-acute/rehab and chronic disease management providers may be different in some ways, but their commonality is the need to deliver efficient, effective care to entire populations while also providing proactive, personalized care to individuals.

What’s your vision?

The preceding pages highlight examples of healthcare organizations that are leading the industry’s transformation to value-based care. The challenges faced by acute care, post-acute/rehab and chronic disease management providers may be different in some ways, but their commonality is the need to deliver efficient, effective care to entire populations while also providing proactive, personalized care to individuals.

The organizations featured are at different stages along the value-based care continuum, but they are all innovating using the same population health management solution: DXC Health360. Whether value-based payments represent only a small portion of today’s revenue or are a major profit and loss driver, this solution is equal to the task.

From consolidating and integrating your physician and care network relationships to personalizing care experiences that improve outcomes to proactive patient engagement and care coordination outside of care facilities, Health360 is a solution that is designed match your vision. More important, however, is that DXC developed it for action, not just analysis. To achieve success at the scale necessary, a population health management solution must enable action instead of passive analysis. DXC built Health360 with care coordination at its foundation, so it’s designed to drive meaningful actions in all aspects of a patient’s life, from point of care to home, and among an extended network of professional caregivers, family and friends.

Whether you have contracted for multiple value-based populations with different agreements and payment protocols or are already engaged with a large value-based population, DXC Health360 can help now. What’s your vision?

For ERP implementations today, a key decision point is whether to host the application on premise, in the cloud or a combination of the two. For many organizations, the choice is based on regaining primary focus on their core business—whether that be manufacturing products or delivering services to customers.