Building a Technology Roadmap that Supports YOUR Organization’s Value-Based Care Model

February 2014
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Overview

There are a variety of accountable, coordinated, value-based healthcare models taking shape in the U.S. These include public Accountable Care Organizations (ACOs) piloted by the Centers for Medicare and Medicaid Services (CMS), private market connected care initiatives, and fully integrated delivery systems. Regardless of the model, the goals are the same: high quality care experience, efficient care delivery and operations, and overall health and wellness responsibility for a specific population.

An emerging theme from the paradigm shift from volume to value is the change in focus from patient to consumer. The physician’s role evolves from the individual caregiver to the trusted source in a team-based care model that includes care coaches, the patient, and the family – all connected and responsible for specific aspects of care monitoring and delivery. The consumer/patient role is transformed to one that is empowered to proactively manage health and wellness. Healthcare organizations are incented to proactively manage care and required to meet quality performance measures and outcomes.

At the heart of the new connected community is the consumer/patient supported by a care team. However, the engine that makes it run is technology – based in the form of a health information exchange (HIE) infrastructure that supports organized, selective information transfer across care sites and providers, managed by the connected community entity, and accessible by the team according to the specific rules of need to know and association with the patient.

IT Roadmap Approach

There are three aspects to building any technology roadmap: 1) understanding the core processes and technology requirements; 2) determining what technology is already in place and where there are gaps, and 3) creating a plan that compliments the implementation of technology to enable the new operational and care delivery processes of the connected care organization.

For newly formed or forming connected care organizations, the issues complicating the development of the roadmap are threefold:

1. The care and business processes are new;
2. The technology is just as new in most cases; and
3. The rollout will depend on early lessons learned and will likely change within the first year.

Rather than taking a “wait and see” posture, many organizations embraced the challenge with growing success through education, understanding of their population and growth plan, and carefully watching the vendor market for the latest announcements regarding acquisitions and new products.

Understanding the Core Competencies and Technologies

The connected organization has a number of care, business, and foundational areas different from traditional provider healthcare organizations that need IT support. At a high level these include:

- **Business Planning** – Program executives and physicians should jointly develop the population health management (PHM) business plan that addresses target populations and associated budget, staffing models, technology plans, and clinical integration assumptions.
- **Consumer Engagement** – Organizations must now engage consumers to be actively involved in health and wellness to prevent illness, alert caregivers early on when health changes occur, and monitor members’ chronic conditions and report findings.
- **Cross Continuum Care / Medical Management** – Cross continuum care delivery requires consistent, continuous care planning and monitoring, consolidated clinical views for providers and coaches, different modes of communication, and seamless hand-offs among care settings.
- **Quality Outcomes Management / Reporting** – Quality and performance management now spans the continuum of care that encompasses all participating entities and includes different metrics and outcome measures.
- **Operational Performance Management / Business Intelligence (BI)** – The business of running the organization includes contracting, provider performance monitoring for care, and operational metrics.
- **Accounting** – Accounting is a major shift from reimbursement to pay for population and value.
- **Integration and Infrastructure** – The technology infrastructure requires new components to route the right information to the right care team member with appropriate data translations, normalization, alerts, and security.
New processes and data sharing needs do not fit traditional IT solutions. As shown in the chart below, technology products cut across core competencies making selection decisions more challenging. For example, HIEs (in red) are needed to support almost all of the foundational areas; BI and analytics (in green) are keys to cross continuum management, quality outcomes management, and accounting.

To add to the complexity, the integration of current legacy systems needs to be added to the technology mix, which dictates the need to complete an IT gap analysis to determine how missing components or lack of functionality will be addressed.

**IT Gap Analysis**

Starting with the business requirements from the connected care organization strategy, organizations typically set up committees to identify more granular operations and care functions for access, care delivery, communications, quality, operational performance, member engagement empowerment, and growth.

The requirements are then prioritized based on need: must have, need in the future, and nice to have groupings. Using the prioritized list, map out technology options for current gaps. For example, member engagement may require self service functions including a health risk assessment (HRA) – all functions that can be accessed via a patent portal but need additional components. Buying new technology is not the only answer, and in almost every case, there will be a combination of buy, optimize, and integrate.

The prioritization of requirements and the overall business plan for the organization help to determine when the functionality will be needed. The other important factor is what is available from current core vendors and in the marketplace already. If the “desirable” technology is part of a package needed for the must have requirements, then it may make sense to install them at the same time.

The HIE and the plethora of applications and tools require numerous interfaces and data normalization. Whenever possible, limit the number of vendors or have a lead vendor partner take responsibility for applications needed for a comprehensive IT solution.
Building the Roadmap

Understanding the expected technology requirements, use the current architecture as the baseline and identify the missing components. Applying the prioritized requirements and implementation timings, along with knowledge of the vendor market to build a draft roadmap with yearly phases to show the migration from the current architecture to the desired future state.

Another way of looking at the technology roadmap is by year mapped to the three major HIE component categories: 1) data sharing and functionality for cross continuum care, 2) core HIE infrastructure applications, and 3) the analytics needed to support the connected care organization for quality and efficiency performance monitoring. An example of this yearly roadmap is depicted below.
Not Done Yet

There is still much work ahead once the roadmap is set. For organizations that need to acquire and implement many of the components, the requirements created during the planning stage will become the functional requirements for a request for proposal (RFP). Others may need to purchase a few niche products and build out their existing system. They will follow the route of selecting the best and integrating the new components into the core infrastructure.

The process of selecting the technology is as important as the technology itself. Leadership must think through the details of what must be in place, the impact on their population, how they plan to grow as a connected care entity, and the growing technology needs.

In the end, learning from others and staying on top of the vendor marketplace are keys to success. In that vein, the remainder of this article is a success story of one pioneer ACO’s journey to create their roadmap.

Case Summary

A multi-hospital health system decided to start the accountable care transformation by targeting self-insured health insurance plan members with a goal of decreasing claims cost by improving health and wellness. There was a financially sustainable model, if successful, that would be offered to other employers. The business plan included a strategic focus on best practice protocols for diabetes, hypertension, hyperlipidemia, and pediatric asthma for the first year. The plan was to measure the key performance indicators representing outcomes of strategies at year end to determine existing program modifications or a change of focus on new target conditions. Coaches were slated to target high and moderate risk members with a ratio of 300:1 while wellness representatives would focus on low and unknown risk members, thus creating the staffing model for the program. Providers at the patient-centered medical homes (PCMHs) of the health system would have coaches embedded as part of the care team on site across the state. For high and moderate risk members with non-PCMH providers, the coach would reach out to that primary care provider to support best care models. For all adult members, incentives would be provided in the form of:

1. Participation Incentives: reduced deductibles for participating in biometric screening with further reductions for attesting to non-tobacco use.

2. Outcomes Incentives: gold, silver, or bronze-level dollars added to the employee member paycheck annually for attaining and maintaining health measures in the areas of exercise, education, glucose, blood pressure, tobacco use, and age/gender required wellness exams.

The IT assessment of current systems identified a need for a HRA and coaching tool with analytics. A member portal was needed as well, but in-house designers were slated to create the portal. Several HRA and medical management systems were evaluated. A gap analysis was performed and assurance of requirements was given resulting in a choice for each. The HRA chosen provided predictive preventative capabilities with associated return on investment. The coaching tool integrated with the HRA tool and accepted claims from all payers (e.g., third party administrator and future employer payers) thus providing coaches with the needed information and analytics reports for measuring utilization, quality, and behavior (charted through protocols).

First year wellness program results were positive. Total health plan expense decreased 13 percent, due in part to a 21 percent reduction in medical claims, enabling the health system to take its success story to other employers. The next addition to the technology roadmap was an integrated, interoperable analytics engine, scalable to handle new populations and clinical integration protocols since they believed that continuous optimization and improvement opportunities were critical for improved value-based quality care. And their success continues with the addition of more than 20 clients.

Bottom Line

There is no one “technology roadmap” for population health management. Every organization needs to assess its purpose, business and care initiatives, existing technologies, gaps, and vendor landscape. Phasing in the technology in concert with the growing population and wellness/care needs has proven to be the least risky and most cost effective means. Whenever possible, minimize the number of vendors and integration points to reduce complexity. Start with education. Learn from the pioneers and work closely with your vendors and outside experts to determine what strategies will work for your situation. Although the roadmaps will be different, the destination is the same – driving from a healthcare system based on volume to one centered on value-based care.
About the Authors

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Fran is a healthcare consulting director and IT expert with a diverse background that includes consulting, research, and hospital IT line management. Her entire career has been dedicated to healthcare and technology. Known as a highly productive problem solver, Fran often volunteers to lead complex and novel assignments. She has published and presented on numerous topics relating to emerging healthcare trends and technologies and is often quoted in industry trade journals. Fran has been a manager, mentor, and coach for consultants, researchers, and technologists throughout her career. Prior to joining Aspen Advisors, Fran led numerous IT projects as a line manager in healthcare facilities, as a consultant and a researcher, covering all aspects of systems strategy, selection, contract negotiations, implementation, and support. Clients include integrated delivery networks, academic medical centers, health plans, large community hospitals, hospital and professional organizations, pharmaceutical firms, and charitable organizations.

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Claudia Blackburn is a results-oriented PMP with over 15 years of progressive experience in directing healthcare technology projects in both health system and physician practice environments. A strong leader with proven organizational skills, Claudia has been an effective link between the operational business side and technology interests of healthcare organizations. Claudia’s involvement in population health management stems beyond the more recent industry efforts. She served as System Director to create an early accountable care initiative at a Gulf Coast health system, which consisted of implementing wellness services for 10,000 lives in their self-insured population. She was instrumental as the first employee of this accountable care initiative. Through these efforts, she integrated a health risk assessment tool, coaching and claims analytics tool, and EMR to produce a population health analysis “picture” from which to tailor wellness services and measure improvement. She built and managed a team of RNs, LPNs, and analytical team in multiple regional offices with a budget of $3 million. She created a repeatable business model and licensed and implemented it at a Florida health system for 7,500 lives in their self-insured population and assisted them to expand this to employers in their community. Her experience also includes analyzing and standardizing processes for three hospital health plan member-based patient-centered medical homes, all NCQA level 3, funded by self-insured health system. Claudia is a Six Sigma Green Belt, which she attained in 2010.

About Aspen Advisors

Aspen Advisors is a professional services firm with a rich mix of respected industry veterans and rising stars who are united by a commitment to excellence and ongoing dedication to healthcare. We work with healthcare organizations to optimize the value of their information technology investments. Our experienced team is highly skilled in all aspects of healthcare technology. We understand the complexities of healthcare operational processes, the vendor landscape, the political realities, and the importance of delivering projects successfully – the first time. Every client is important to us, and every project is critical to our reputation. Established in 2006, the firm has earned accolades for our culture, service delivery, and growth. We were named one of Modern Healthcare’s “Best Places to Work in Healthcare” in 2011, 2012, and 2013 and one of Consulting Magazine’s “Seven Small Jewels” in 2014. Our hallmarks are top quality service and satisfied clients; we’re proud of our KLAS rankings and that 100% of our clients are referenceable.

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