For healthcare to transform to a value-driven industry, organizations must elevate data—collecting it through a disciplined, transparent and validated process—to the status of an enterprise asset. Once the currency of back-end information technology (IT) and revenue-cycle operations, today data is the mission-critical element of a healthcare industry amidst a revolution. As such, it requires an infrastructure that supports access and transparency, as well as tools that foster collaboration between an organization’s business and IT operations so that the people who must understand and leverage the data have the tools they need to analyze that data. Value-driven transformative quality measures—such as reduced patient admissions, member retention and patient engagement—all depend on access to trustworthy data.

The healthcare industry’s need for high-quality data shares common characteristics with many industries. However, healthcare requires even higher standards for two important reasons. First, “bad data” in healthcare can mean life or death, both for patients and for the companies that serve them. Second, for such an enormous industry, healthcare is remarkably fragmented yet interdependent—thousands of organizations of every size and description overlap and interconnect as part of insurance and clinical networks bound by contractual obligations and patient-driven workflows.
Thought leaders at some of the nation’s leading healthcare IT companies say successful healthcare organizations, both payer and provider entities, will achieve transformation only by fostering a data-centric environment built on three defining characteristics:

- Analytics are applied as a core competency
- Data drives medical care best practices
- Clinicians, business stakeholders and IT entities operate within an ecosystem of strong, actionable relationships.

It is this last point that accounts for the special role of the network in healthcare data management. Investments in “big data” at insurance companies and hospital systems are enabling these enterprises to amass important information to better manage population health. Now, these enterprises need robust, secure networks to “feed” the Big Data systems; to support care coordination by distributing information to the right people and only the right people; to react in real time to distributed network events such as an admission to an emergency room; to enable virtual teams to share critical work; and to effect clinical “campaigns” in support of quality metric sets that will underlie the shift of compensation to value-based reimbursement models.

Data as a competitive differentiator

For 30 years, clinical innovation was the force of change in healthcare, according to Michelle Blackmer, director of healthcare industry solutions at Informatica, a leading provider of data infrastructure software. The next, better device and the next, new procedure superseded cost or value considerations. While clinical innovation has delivered great strides in care and treatment of patients, she argued, continued clinical innovation requires the intersection of science and technology that will come from correlating and analyzing information that spans domains. Today, misdiagnoses comprise about 40 percent of physicians’ mistakes, according to the National Patient Safety Foundation. As recently as 2009, approximately 30 percent of healthcare spending was wasted, according to an Institute of Medicine report issued in September 2012. In today’s fragmented and constantly changing world of healthcare, information management is the engine of change, she said.

How well organizations harness and make use of data will determine their survival, according to Frank Ingari, CEO of NaviNet, one of the nation’s largest healthcare network communities, with 375,000 people nationwide using the NaviNet solution each month. NaviNet’s users are found in every sort of clinical organization, often using the system four to eight hours a day to verify patient insurance coverage, inquire about reimbursement and perform referrals and authorizations. All of healthcare reform, he said, is designed to get major players to share responsibility: insurers to take ownership of the quality of care associated with their insurance, and providers to take ownership of the costs associated with the best evidence-based treatment for their patients. Achieving that goal calls for information sharing in unprecedented ways.

That alone, Ingari said, would have driven the industry to consider sophisticated data management techniques, as did the financial services industry while building out worldwide ATM networks. But the requirements of the government’s HIPAA regulations make high-quality master data management (MDM) a critical survival factor for healthcare enterprises. Not only must data be exchanged in workflows that include only those individuals authorized to see data under very detailed access control, but vendor systems must handle adds, changes, deletes, temporary changes and emergencies in robust and auditable fashion.

NaviNet partnered with Informatica to ensure it could model the complexities of the heterogeneous healthcare industry in a way that would enable it to process key transactions and facilitate critical interactions between people who are part of dynamic networks that change as healthcare contracts and ownerships structures change. For example, NaviNet can tailor communications among a diverse clinical population according to their status in the reimbursement contract with the ultimate payer—whether that is the federal or state government, a corporation or an end consumer.
Data-centric, high-value care

Transformed healthcare organizations will deliver high-value care by putting data to work in all aspects of their enterprise. They will access and use data, and act on it via channels that are proven effective for targeted or defined populations, whether that population is identified subscribers of a certain insurance product or high-risk Type 2 diabetes patients. For example, a plan member enrolled in a wellness program might receive a mailer encouraging participation in a local walkathon. Similarly, that high-risk patient might receive an email coupon for a membership at a local health club.

Aggregated data, not electronic health records alone, will be the engine of innovation, built through information management that spans domains where patients or providers are engaged, according to Blackmer. The key rests in how stakeholders behave in this new ecosystem. It will drive how organizations engage consumers, employers, payers and providers. It will determine how high-value, high-quality healthcare is delivered and in what ways wellness promotion and sickness prevention are addressed across a very fragmented technology-enabled environment.

Transformed healthcare organizations will undergo the greatest degree of change in the following areas.

**Process of quality.** A good first step, Blackmer said, is to work on changing an organization’s culture by infusing quality data into everyday care by focusing on the process of quality. Staff must weave analytics into their daily operations. The most effective organizations will distribute flu shots with the same metrics on value and quality as they apply to procedures in the operating room. “All the clinical innovation in the world doesn’t matter if it’s delivered inconsistently and to only a few people,” she said. “We’ve got to empower the delivery system to deliver care based on proven best practices.”

**Engagement.** Transformed healthcare organizations will engage patients through channels they use in all other aspects of their lives. This may include establishing clinics in retail settings and delivering information via direct mail, retail buyer-reward programs, text messaging and other social media.

**Collaboration.** Ingari sees payer-provider collaboration—including shared financial risk for a patient population, putting the member patient first—as a top priority for CIOs in health insurance companies today. Given that healthcare’s core problems and chief priorities are relationships, communication and coordination, effective information management networks are essential to success, because they enable payers, providers and consumers to collaborate in new ways.

**Multipayer networks.** Providers and payers have come to realize that networks must accommodate multiple payers. “Doctors aren’t going to switch portals,” Ingari said. “The network itself has taken on vitality as a multipayer space where the doctor’s office interacts with different insurance companies.”

**Expanding existing channels.** Forward-thinking healthcare organizations are building out their administrative networks to include clinical information to promote its usability and adoption. “The best example is when a doctor checks to see if patient is eligible,” Ingari said. “As well as receiving a yes or no from a payer, they also receive clinically relevant information. Here’s the evidence-based guidance for treating this patient with this condition at this time. It’s the opportunity to close a care gap at the moment of care.”
Healthcare of tomorrow

We can expect transformed healthcare organizations in the United States to operate in the following ways.

**Data will be trustworthy and widely shared.** Building on the standards established through meaningful use, healthcare organizations will operate with established definitions and consistent parameters with regard to data, Blackmer said. Organizations will establish data-governance criteria within job descriptions to implement good processes and discipline to ensure transparency and reliability. This, in turn, will enhance the value of the data, prompting greater adoption by clinicians and improving the likelihood of data-driven delivery of care.

**Entities will share risk.** Traditional walls between payers and providers will come down, clearing the way for shared-risk adjustment, Ingari said. Paying entities will focus on quality of clinical care, and clinical entities will focus on effective cost management. Payers are likely to offer more rewards when clinicians achieve their goal of providing high-quality care.

**Engagement will increase.** Consumers will benefit from an unprecedented access to information and options, but their share of costs will rise, Ingari said. As a result, consumers will be motivated to care for their own health and pay attention to cost and quality relationships.

**Niche businesses will emerge.** New businesses will emerge, incorporating elements of today’s traditional payer or provider entities, Ingari said. In addition to traditional payer activities, these businesses also will provide care.

**Use of technology will surge.** Expect to see considerable expansion of the use of technology that is commonplace in other aspects of daily life, Blackmer said. These tools will expand the flow of information and better connect us with what we need to know to make informed decisions.

“We’ll see a fairly complex evolution from the Byzantine structure that exists today,” Ingari said, referring to the 50-year tradition of payers and providers working more in opposition to each other rather than in concert. “These wounds are deep, and they’ve been reinforced by regulation and law. It’s going to take time. But you can see a lot of positives. As transparency and high-quality data begin to characterize the technological network, trust will blossom between the entities and individuals who make up the human network of healthcare.”