How to Be Successful in the Digital Health Revolution

Right strategy, data management partners will be the key to success
How to Be Successful in the Digital Health Revolution

Navigating the new healthcare landscape

We are progressively moving towards a value-based healthcare system heavily reliant on technology to coordinate and deliver care, engage patients and improve outcomes.

This swift convergence of healthcare and technology is forcing an industry that historically has moved slowly to quickly adopt and innovate. A great deal of the initial integration of technology, such as EHRs, was driven by government regulation and payment incentives. However, technology is now proving to be a way to reduce costs, increase efficiency of care coordination and better patient outcomes.

Technology is changing not only how physicians interface with and treat patients, but also how patients manage their own health. Patients are pushing toward metric-driven management of their own health, using an array of new applications and devices to track their activity and vitals data. They use this information to not only manage their own health, but increasingly, are also sharing it with physicians and other caregivers to include them in the care delivery process.

Today, the average person is hyper-connected to networks of devices. Wearables, including smartwatches, connected eyewear and fitness trackers, are leading the charge. But new mobile technology is also emerging, such as smart bottles that measure water consumption, smart clothing that monitors vital signs, and digital tattoos and implants that allow individuals to gather data on almost any part of their health, body and life.

As these devices and applications continue to generate a continuous data stream and patient health history, the information digital health technology produces will become even more vital to healthcare companies focusing on reducing costs and improving population health. Data collected outside of the hospital or...
physician’s office is becoming increasingly important for healthcare systems and physicians to integrate as we move from fee-for-service to value-based care.

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DREW SCHILLER, CTO AND CO-FOUNDER, VALIDIC

Healthcare companies are beginning to realize the benefits of technology-integration and data access. In this eBook, we will discuss how companies are leveraging the astounding amount of data generated from these handheld diagnostic tools in clinical care coordination, chronic disease management, analytics and informatics initiatives and more.

But healthcare providers, wellness companies and pharmaceutical groups are not launching these initiatives on their own. Rather, they are partnering with healthcare technology vendors to bring better and more innovative products to market more quickly.

Technology: powering the future of healthcare
Healthcare IT vendors are at the epicenter of the transformation occurring in healthcare. Healthcare information technology companies are creating products and solutions focused on improving healthcare delivery, workflow and patient outcomes. These companies and their solutions are helping to power the patient-centered health movement.

Healthcare technology is broad by definition. These companies offer platforms and services that tackle everything from remote patient management to patient record access. Everything in the hospital is becoming connected through technology, which is this idea of interoperability.

The Office of the National Coordinator, in its 10-year vision, said that by 2024, the use of interoperable health IT will be pervasive across the healthcare ecosystem. All healthcare stakeholders—including patients, physicians and nurses—will seamlessly interact with health IT on a daily basis for multiple purposes, including encouraging healthy habits of daily living, delivery of care, care coordination, population management, and value-based reimbursement.

As all of the moving parts in healthcare become interconnected, there is going to be an increased reliance on data in clinical processes. Integrated networks of platforms will be collecting, transferring, organizing and analyzing incredibly high volumes of health data. Information in EHRs will interconnect with patient portals, analytics dashboards, remote monitoring devices, telehealth solutions, wellness platforms and other technologies to provide a clear and holistic picture of patient’s health and care efficacy. These solutions will offer the context to the data needed to seamlessly improve outcomes.
A well-developed and implemented healthcare IT infrastructure is the most critical factor for patient and provider success. When it comes to cost-reducing initiatives focused on successful management of populations, there is no more efficient way to manage the sheer volume of data needed to proactively keep these patients healthy. Critical to patient data management is data access.

Validic: the interoperability solution for patient data access
Validic is a healthcare technology company with a client population of 160 million in 47 countries around the world. As the industry’s leading digital health platform, Validic provides healthcare companies—including providers, payers, pharma, health IT and wellness—with secure and HIPAA-compliant data access to the best-in-class digital health and clinical in-home technologies.

As the global leader in healthcare information interoperability per Frost & Sullivan, Validic recognized that device and applications manufacturers were increasingly producing data in many different, often incompatible, formats. The lack of standards in healthcare interoperability, coupled with the heavy burden of connecting to mobile health and clinical devices, made it difficult for healthcare companies to access patient data generated outside of the clinical setting. The process of integration was draining technical and financial resources from companies across all segments of healthcare and distracting them from advancing on their core product or initiatives.

“We found healthcare companies needed an easy and systematic way to access the data from these digital health devices,” Validic CTO and Co-founder Drew Schiller said. “There was no solution on the market offering this kind of interoperability and data access.”

“We created Validic to enable healthcare companies to quickly and efficiently integrate health data into their systems, portals or platforms,” said Schiller. “This allows them to focus on how to leverage and best utilize the data rather than building hundreds of connections to devices that may or may not succeed or be relevant in five years.”

Validic developed a device-agnostic, platform-agnostic technology solution to access patient-generated data from devices and applications, such as blood pressure monitors, blood glucose meters, heart rate monitors, fitness trackers, and others. Validic’s FDA Medical Device Data System (MDDS Class I) then delivers the...
How to be Successful in the Digital Health Revolution
Navigating the New Healthcare Landscape
Technology: Powering the Future of Healthcare
Validic: the Interoperability Solution for Patient Data Access
Client Case Study: InterSystems and Informatics
Client Case Study: Axial Exchange and Care Coordination
Client Case Study: CareSync and Population Management
Conclusion

Validic connects to nearly 200 digital health devices and applications. The company closely monitors the market for new technologies to add to their constantly expanding marketplace of digital health devices and apps.

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Without the burden of building and maintaining those data connections or business relationships with devices companies, healthcare organizations can focus technical and financial resources on their core competencies.

Schiller describes Validic’s current customer base as “any company who is looking at systematically accessing data from a user or patient population.”

These clients include hospital systems, which use data to remotely monitor patients and populations; pharmaceutical companies use the data to streamline trial recruitment and clinical trial management; population health management companies use the data to evaluate current programs and identify trends to develop new programs; and corporate health and wellness companies use the data to engage and incentivize participants in the programs and challenges they manage.

Validic customer Sutter Health, a Northern California health system, utilizes Validic’s digital health platform to execute a remote patient monitoring program. Validic enables Sutter Health to connect to a wide variety of blood pressure monitors, activity trackers and weight scales that the health system uses to remotely manage high-risk patients with heart disease and hypertension.

Patients enrolled in this program are monitored for fluctuations in blood pressure, changes in weight, problems with sleep, and decreases in physical activity—as these are all signs that patient hospitalization or
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readmission is required, if not addressed. A caregiver or physician can identify trends or triggers based on the data stream and intervene before emergency care is needed.

“Remote monitoring is a cost-effective solution for tracking and managing high-risk patients to minimize their risk of hospitalization,” Schiller notes. “Patient data generated outside of the hospital walls is necessary to execute on these type of remote initiatives—really it is necessary for many value-based initiatives.”

The need for data access and standardization continues to grow, which means the connections Validic provides is becoming increasingly vital to healthcare companies. Highlighted in this eBook are three Validic clients that are using patient-generated data to execute on informatics, care coordination and population management initiatives.

Client Case Study: InterSystems and Informatics
InterSystems Corporation is a privately held technology company with a focus in healthcare operating in 25 different countries around the world.

One of the most popular healthcare solutions from InterSystems, is HealthShare, a health informatics platform that helps a wide range of customers—including countries, state governments and healthcare providers—share large volumes of patient data.

When it comes to health data, HealthShare goes beyond the idea that integration should be confined to the four walls of a hospital or one network, according to Kathleen Aller, director of business development.

“This integration can be state-wide, across countries or even involve competitors funneling data into a common system for improved outcomes globally, Le says. “HealthShare is a hub where hospitals can connect applications and different data sources to provide clear data insights to all of the different stakeholders. This ensures that an organization is getting the most out of patient data.”

Building and maintaining an interoperable infrastructure allows your healthcare organization to create programs and incentives that encourage patients to share their data from wearable devices.

“HealthShare takes the concept of data integration and turns it into interoperability,” says Nelson Le, a pediatric cardiologist and clinical advisor to InterSystems. “When you are pulling in data sources from other organizations that you might not be affiliated with, you can use that data to improve patient outcomes, your financial performance, or even your clinical efficiency,” he adds.

“We believe passionately that if a patient has to manage too many different information stores, they will not use any of them. If patients are going to be engaged in managing their health with technology, they need to have a comprehensive record and one source to view.”

KATHERINE ALLER, DIRECTOR OF BUSINESS DEVELOPMENT, INTERSYSTEMS
The key to success in healthcare, Aller believes, is a unified platform, especially when the focus is patient engagement.

“We believe, passionately, that if a patient has to manage too many different information stores, they will not use any of them,” Aller says. “If patients are going to be engaged in managing their health with technology, they need to have a comprehensive record and one source to view.”

InterSystems works as an intermediary with hospitals and health information exchanges. Validic helps the company integrate patient-generated data from mobile health and clinical in-home devices into their technology hub.

“Validic’s industry-leading digital health platform expands our comprehensive care record, which is used to coordinate care across hospitals, primary care providers, payers and home care,” said Joe DeSantis, Vice President of HealthShare Platforms. “Validic will provide our HealthShare suite of products with greater access to patient data that can be used to provide actionable insights for better patient outcomes.”

Xerox is one company that uses Intersystems to power its Care Performance Platform, which tracks patient cases from admission to discharge. It also monitors and helps manage care quality based on physician activity and health outcomes. The Xerox system takes patient data from thousands of hospitals, as well as claims databases, and analyzes and standardizes the information to help inform clinical decision making.

As a clinician, Le says the speed of access to patient data is one of the most exciting aspects of advances in mobile health technology. The new types of data available to clinicians based on the advancements in digital health devices and applications is a game-changer. Greater access to clinical in-home and mobile health data helps clinicians provide better patient outcomes and gives them increased confidence in medical decision-making.

Moving forward, InterSystems will continue to find new ways to build innovative applications that leverage the increased stream of data coming into the healthcare system, Aller says. “We are focused on connecting information across the healthcare spectrums—any data that involves the payer, provider, social services, patient, and all the patient’s representatives.”

Client Case Study: Axial Exchange and Care Coordination

Axial Exchange serves both the patient and the provider communities. They have developed desktop and mobile tools designed to streamline clinical tasks for the providers and encourage behavior change for the patients, according to David Millsaps, vice president of product strategy and marketing for Axial Exchange.

“We add value by integrating with existing EHRs and provider tools so clinicians do not have to change their workflow, however, they would still get the incremental value from utilizing those tools,” Millsaps says.

Axial Exchange offers three products. The first is a care coordination product that serves networks of providers, called Axial Provider. The second is a mobile application that serves a variety of institutions
with information challenges focused on improving care delivery. The third is a chronic care management service that utilizes the first two products. It was created to meet the disparate needs of chronic care management services billed with CPT code 99490. The code allows for reimbursement for non-face-to-face care coordination services delivered to Medicare beneficiaries with multiple chronic conditions.

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Axial Provider syncs patient records between networks and provider systems. It allows clinicians to know when patients are seen by other physicians, Millsaps says. This technology is also a key driver in the chronic care management program, which relies heavily on monitoring and tracking patients.

“An important aspect of chronic care management is that all providers involved with a patient are coordinating and up-to-date on care plans and the patient’s status,” Millsaps says. “Axial Exchange’s provider software integrates data from different EHRs, digital health devices and patient financials to then alert individual providers when something has changed with one of their patients,” he adds.

Mobile technology is now the best way to monitor and communicate with patients outside of the hospital, Millsaps states. Axial Exchange’s mobile application creates multiple touch points over time, and helps prevent missed mail, e-mails and phone calls. “We see mobile as really the grease in the wheels on that communication process,” Millsaps adds.

Health insurer coverage of chronic care management (code 99490) is a good example of how Axial Exchange can help providers manage multiple data sets. Unlike most health encounters prefaced on a face-to-face interaction between patient and provider, chronic care management is all about the successful remote management of patients with chronic conditions. Success requires access to well-managed and accurate patient-generated data.

“To be able to address strategic objectives like reducing costs and increasing efficiency, healthcare companies need to have a certain level of technology-integration and polish,” Millsaps says. “A typical patient experience with disease management education is copies of documents and pamphlets with clipart. Instead, we are able to do some of that education via a mobile application. And, with that application we are able to encourage behavior change that works over time with the patient rather than a static document.”

Axial Exchange utilizes Validic’s digital health platform to offer a “frictionless way for hospitals to integrate patient data into their EHR.”

When patients are encouraged to connect their own digital health devices to our platforms, the data is, then,
easily fed back through the EHR in the form of a report, Millsaps says. Prior to working with Validic, early versions of Axial Exchange software required more self-entered data. This often created reliability issues and increased patient drop off from self-monitoring their conditions.

Millsaps sees the future of mobile health inspired by the way face-to-face healthcare works now. The best providers check on patients often and remind them of what to do to stay healthy.

“I think we really see consistent mobile communication and monitoring as the future of healthcare. It’s about appropriating the way care is delivered in person by a physician for the digital, mobile medium,” Millsaps says. And, mobile health data is critical to that dynamic.

**Client Case Study: CareSync and Population Management**

CareSync provides a chronic care management platform for primary care practices that enables them to create and maintain similar programs to those launched by hospitals, says Travis Bond, founder and CEO of the company.

CareSync has built a patient-centric platform. It integrates all of the patient’s medical records from multiple providers into one source. It, then, uses those connections to allow patients and providers to coordinate or collaborate on care, Bond says. The program is especially geared toward helping providers get reimbursed for the chronic care management service via new CPT code 99490.

“We are keeping the patient, their family and the providers all in sync,” Bond says. CareSync transcribes all of the patient’s medical and admission records, so the patient, family members and caregivers are all aligned. Personal user data, from such sources as digital health devices, helps to capture what happens between visits, Bond says.

“I would [health care providers] that their best option, without making substantial investments in IT, is to partner with an organization that can help accelerate a chronic care management program.”

*TRAVIS BOND, FOUNDER AND CEO, CARESYNC*

CareSync, whose primary customer is the provider, has been building the tools to support chronic care even prior to the launch of the CMS Chronic Care Management Program, Bond adds.

Setting up the chronic care management system helps providers achieve the number one goal of CMS, which is to keep patients healthy and out of the hospital, Bond says. The chronic care payments positioned CareSync to be the link between providers and the patient’s family.

Bond expects CMS to continue to drive the healthcare system toward more coordinated, quality care in the next few years.

The data being collected in between visits, even from other providers, is helping provide context around
what is happening with the patient’s chronic conditions between encounters. This helps to better manage the conditions overall, Bond believes. “If you are managing a chronic disease for a patient, and you have not seen him in 60 days, the best you are going to get out of that patient is the last three days. What about the other 57?”

Validic helps CareSync manage the constantly evolving data variables that make up the patient’s health history and care management. With Validic, CareSync now integrates data from more than 100 device and application manufacturers, Bond says.

Bond’s advice to healthcare companies and providers is to have good IT partners. “I would tell them that their best option, without making substantial investments in IT, is to partner with an organization that can help accelerate a chronic care management program,” Bond says.

**Conclusion**

The amount of data being generated and managed by patients and healthcare providers has increased dramatically over the past few years. Consumers continue to adopt the latest devices and applications to track their health and wellness, while innovators and leaders in healthcare are proving the clinical value of this digital health data. As the market matures and as incentives continue to be built around value-based and preventative care, new and existing technology companies will continue to create new solutions built around leveraging all of this patient-generated data.

Health insurance companies, employers, the government and healthcare providers must have robust technology solutions, and partners, to manage the flow of patient data. These technology partners can also help determine—and then refine—the right metrics to improve overall patient and population health, to help better manage health costs and to enable the reduction of hospitalizations.

As consumers demand more control over their own health data, they will expect healthcare providers to easily and conveniently provide that information to them and seamlessly handle all data integration.

With all of the financial pressure providers are facing to reduce readmissions and achieve cost reductions, the need to be able to quickly access and use patient data—without regard to format or compatibility—will be stronger than ever.

Validic, the market leader in powering technology companies’ access to data, will continue to be a pivotal partner for IT companies and healthcare providers. As recently awarded by Frost & Sullivan, Validic leads the digital health market in Healthcare Information Interoperability and as Wa Top Innovating Disruptor in Healthcare. Validic’s digital health platform empowers healthcare organizations to focus on how to best use patient data to drive better outcomes—without having to worry about the challenges associated with data access and standardization.
A recent global survey of over 450 healthcare companies found that 41% believe they are on schedule for implementing their digital health strategies. 

Are You?...

Digital Health is really happening and transforming healthcare now.

Will You Be Left Behind?

As the industry's leading digital health platform, Validic provides hospitals, pharma, wellness and healthcare technology companies with convenient and quick access to patient data from mobile health and clinical in-home devices, wearables and applications.

Validic was recently recognized as the Best Value in Healthcare Information Interoperability and a Top 10 Healthcare Innovating Disruptor by Frost & Sullivan. Validic's leading global digital health ecosystem reaches over 160 million lives in 47 countries and continues to grow daily.

To see how Validic can help accelerate your digital health initiatives, please contact us at validic.com/contact