Making Digital Health Part of Care Delivery, Population Health
by Robert Egan

The technology building blocks that define digital health consist of population health management, health information exchange, patient and provider engagement capabilities and care management and wellness solutions. These will connect the oceans of data ranging from patient-generated data to the genomic data of personalized medicine. The promise of digital health requires a degree of collaboration from all the participants in healthcare that is just beginning. While there is progress, the scope of fundamental change is an enormous challenge.

In a value-driven system, patients, providers and provider organizations must begin to view their relationships differently. The technology tools are now available to facilitate more personalized, informed and collaborative relationships. A key challenge in making digital health an integral part of care delivery and improving population health is changing attitudes and embracing new technology. Change is difficult, and inertia is a powerful force. However, the potential for digital health to improve health outcomes, lower cost and increase quality is powerful motivation.

Connecting Providers With Customers

Provider organizations will need to behave more like consumer brands. They will need to engage with their customers online, with mobile apps and through social media. The patient information they gather from all channels must be aggregated. Powerful analytics tools will need to be employed to understand customer behavior. In a healthcare system that focuses on paying for value-based care over volume of care, healthcare organizations must relentlessly focus on patient satisfaction to improve retention and grow market share.

Health systems have implemented initiatives to improve the overall patient experience. Patient portals, powered by electronic medical records (EMRs) or health information exchanges (HIEs) are becoming more common. However, most provider organizations have yet to fully integrate online, mobile and social media technologies with their internal IT systems to maximize clinical value.

Healthcare consumers must also embrace personal responsibility for healthier behavior and lifestyle changes. Patient portals allow a two-way exchange of information, but they must become far more compelling than they are today. Patient engagement must rise to new levels to truly change consumer behavior.

Today, consumers engage with banks, airlines and retailers using their mobile phones, and they want to manage their health the same way. Mobile apps and online resources are important patient engagement tools that extend support to patients anywhere, at any time. These tools can help patients find a local provider, schedule appointments online, check for dangerous drug interactions, compare the cost of medical procedures and securely store personal health information.

Digital health will allow internal systems and online patient tools to work together to improve patient experience. Improving online communication connects patients with the clinical aspects of their own care. This motivates consumers to be more engaged in programs to improve their health, such as preventative care and lifestyle changes. And in turn, when patients are engaged in compelling, personalized and educational ways, they become a rich source of clinical information.

When Healthcare Delivers

UPS and FedEx know how to deliver packages on time. By leveraging their advanced IT infrastructures, these companies deliver millions of packages to the right customers at the right time.

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Their massive networks share data with internal and external parties to optimize efficiency and continuously analyze performance. Healthcare organizations can take a page from these shipping companies’ playbooks when it comes to the effective use of networks and data sharing. Digital health will improve care delivery by using patient and clinical data sets that support proactive, comprehensive care.

Providers need to operate in an integrated data network, allowing them to share information internally and with external providers, community organizations and other stakeholders. Providers use the shared data to improve clinical outcomes, improve quality and lower costs.

A key element of population health management is the use of advanced population data analytics that can identify population health trends by:

- Providing insight into the prevalence of chronic conditions, population level risks and changes over time;
- identifying and stratifying sub-groups at most risk; and
- informing clinical decision making and triggering appropriate clinical interventions.

Understanding population data helps organizations determine how to distribute resources and measure both the performance of clinicians and the effectiveness of care interventions. The importance of data and the ability to share it are critical. As the founder of FedEx, Fred Smith once said, “Information about the package is as important as the package itself.”

**Pulling it all Together**

The technology vision of digital health is complete data integration that bridges existing gaps between EMRs, population health management tools, HIEs and all of the related IT systems to inform clinical decision making. The future is data-rich and information-driven. Integrated technology solutions will provide the tools to improve patient outcomes, increase quality and lower cost. Patients will engage in their own care by having easy access to compelling tools, health information and educational resources. Care teams will motivate and collaborate with patients to help them take care of themselves.

Patient engagement tools will be able to share data with providers. Successful patient engagement and population health management strategies can show provider organizations how a patient-centered approach to care has both financial and quality benefits. These benefits include improved outcomes, fewer medication errors and increased patient loyalty.

Episodic treatment of patients who are sick will give way to a holistic approach that provides care for whole populations. Providers will use advanced technology to deliver a wide range of services to highly engaged patients. Those services will enable improved care collaboration, lower costs and deliver high-quality outcomes.

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