Four Key Components for Building a Sustainable mHealth Strategy

Article   By Harvey Roth, CPHIMS, LFHIMSS, Executive Consultant, Strategic Advisory Group   June 2014

As a testament to the rapidly growing mobile health (mHealth) market, a recent HIMSS Analytics survey cites that more than 83 percent of physicians use mobile devices to provide care, saying the biggest benefit is improved access to patient information and the ability to view patients' data remotely.

The same survey also states that more than one-third of physicians interviewed believe mHealth will dramatically impact patient care in the future, with mobile apps increasingly playing a central role in providing enhanced care delivery models.

With this rapid increase in the use of hand-held devices, many organizations are challenged with formulating long-term strategies and policies to manage the growing inventory of wireless devices. CIOs and healthcare IT administrators also have concerns related to planning and implementing a viable mHealth strategy that incorporates technological and procedural solutions for data security, privacy, availability, and care delivery issues.

The following are four critical areas of focus to consider when defining, developing, and incorporating your mHealth strategy for long-term sustainability across your enterprise.

1. Build a strong infrastructure

A viable mHealth strategy must start with a strong technological infrastructure. Organizations should first identify wireless networking, application, and integration requirements that will support their overall objectives. While there are many technological issues to consider, it's important to remember that it's not only an issue of mobility, but also improved usability and communication.

In choosing a wireless network, the entire organization should be taken into consideration. This includes the physical building, the end users, the different types of devices that will be used, and how the wireless network will affect the rest of the hospital's systems.

Platforms and applications should reflect the needs of the organization and its staff. Here are some questions to consider:

✓ Will staff be able to bring their personal devices (BYOD), and if so, what's acceptable? For example, will iPhones be okay but not Androids? iPads but not Nexus devices?

✓ Will devices be issued? If so, which types are best for your organization?

✓ What features and functions should be enabled to ensure access to information systems is intuitive and integrated with mobile devices?

✓ Can the current infrastructure handle multiple devices continually exchanging enormous amounts of data and clinical information?

✓ How will you handle new technology as it becomes available? For example, medical staff at Beth Israel Deaconess Medical Center in Boston are using Google Glass in the Emergency Department. In at least one case, the device helped save a patient's life.

2. Establish a secure environment

One of the biggest challenges will be securing data and maintaining patient confidentiality in a mobile world. Healthcare organizations must have rigorous privacy and security measures to protect their patients and themselves from data breaches.

> Organizations should only use applications that provide HIPAA-compliant document capture, transmission, and storage features.

Encrypting emails, making sure data cannot be saved to the device, maintaining a firewall, and using anti-malware and security software are just some of the measures that health systems must focus on when developing mHealth programs.

Encryption is perhaps the most important step. A 2012 analysis by the Department of Health and Human Services reported that nearly 40 percent of large HIPAA rule violations involved lost or stolen devices that could have been prevented had they been encrypted. Organizations should only use applications that provide HIPAA-compliant document capture, transmission, and storage features.

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How should organizations approach mHealth from a compliance perspective? For starters, ensure you understand the latest HIPAA federal legislation and keep up with mHealth regulations as they evolve. The laws, standards, and policies pertaining to HIPAA regulations are complex. Legislators and healthcare leaders are working hard to ensure that amid the escalating use of mobile devices, patient information is kept private and secure.

Organizations need to determine how their applications will share protected health information, what security measures will be in place, and how they and their users will know if information confidentiality has been breached. HealthIT.gov provides updated information, which includes comprehensive guidelines to help ensure your organization's data is secure and polices are compliant with HIPAA regulations.

3. Enhance the delivery of care and engage patients

Mobile health tools can help improve care delivery models by significantly streamlining communications. These tools provide physicians and care teams immediate access to patient records wherever they are in real time when they are integrated with your EHR.

And whether it's across a great distance, across town, or down the hall, mHealth is also helping to strengthen the relationships among providers and patients. Physicians can respond remotely on a patient's behalf during an emergency. They can also provide treatment plans and prescriptions as part of a wellness program — helping to prevent and manage chronic conditions, illness, and disease. And since patients have easier access to their physicians and records, they have the tools and information to take better control of their health.

This empowerment leads to enhanced compliance with medication orders, post-treatment care, and improved wellness overall. All of this aligns with the goals of a team-based approach to patient care when it comes to healthcare reform initiatives such as: Accountable Care Organizations, Patient-Centered Medical Homes, and Meaningful Use. Mobile tools that allow providers to remotely collaborate with care teams are a central component to the quality of care delivery and patient outcomes.

Whether it's via the patient portal and/or through different mobile apps, each health system should determine the best care delivery models for its organization. iMedicalApps (www.iMedicalApps.com) analysts offer reviews and commentary on mobile medical technology. Readers can read reviews and also get recommendations on the top healthcare apps available on the market. Once an organization chooses the tools and apps for its care delivery model, it's important to communicate to patients on an ongoing basis how they can access their doctors, their records, and relevant clinical/consumer information using the new technology.
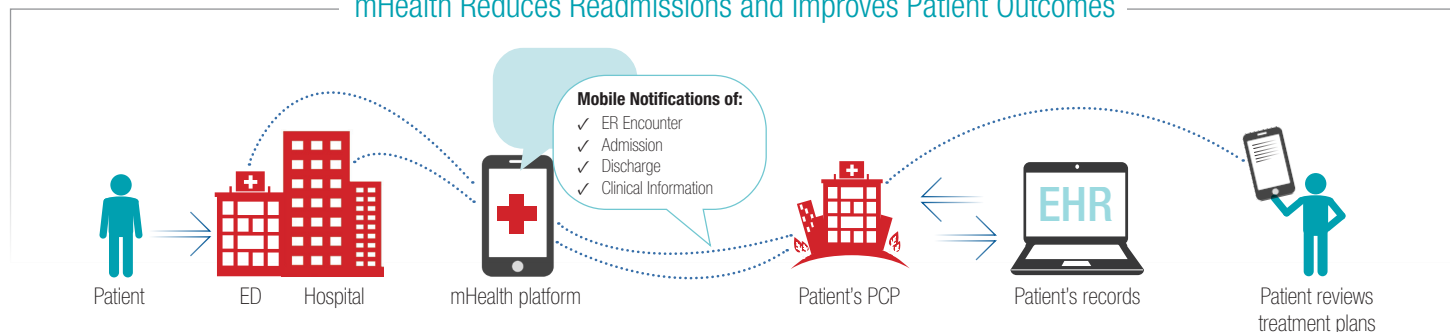
4. Empower care teams

Mobile health messaging is improving the speed and quality of communication among providers; however, clinicians often use different devices, systems, and platforms that can result in missed opportunities to coordinate care. To make communications seamless and efficient, implement a detailed care coordination plan, helping to ensure:

✓ Everyone knows who is on the care team, with the role of each participant clearly defined

✓ There are regular updates about the patient

✓ Any changes about team members are communicated immediately

Mobile health has the potential to dramatically improve patient outcomes by providing the most vital information to clinicians — in real time — at the first point of care, during transitions of care, and throughout the post-acute period to help prevent hospital readmissions.

mHealth Reduces Readmissions and Improves Patient Outcomes

Mobile Notifications of:
✓ ER Encounter
✓ Admission
✓ Discharge
✓ Clinical Information

Patient   ED   Hospital   mHealth platform   Patient's PCP   Patient's records   Patient reviews treatment plans

mHealth's role in transforming healthcare

The increasing use of mHealth comes at a perfect time, with technological advances continually improving the speed and reliability of tools, apps, portals, and platforms. When implemented securely and effectively, organizations will have more opportunities to adopt healthcare reform initiatives by providing better, more coordinated care. They will also be able to better engage patients to be more proactive in managing their own health and wellness. The key is to develop a comprehensive, well-thought-out plan that includes:

✓ Determining which devices, platforms, and systems will be used to support the mHealth program

✓ Making sure that data is secured, with the proper privacy measures in place

✓ Developing and updating policies that cover all legal and procedural aspects of the program

✓ Implementing care delivery models and making it a priority to update patients and encourage their participation

✓ Making sure care teams have access to patient information in order to communicate swiftly and effectively

Once these areas are in place as part of a sustainable mHealth strategy, healthcare leaders will dramatically increase their organization's potential to successfully meet healthcare reform initiatives, stay viable in an ever-changing industry, and deliver the best patient care possible.

About the Author

Harvey Roth is an executive consultant in the Strategic Advisory Group at Beacon Partners, where he specializes in strategic and technology-related engagements. His career in healthcare IT spans more than 30 years where he has held positions including: Chief Information Officer, Chief Technology Officer and Chief Information Security Officer at different healthcare organizations. Harvey is a founding member of the Northern California chapter of HIMSS and is also active with the national HIMSS organization.

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