

Moving Targets: Maximizing the Rewards and Minimizing the Risks of Mobile Devices

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Mobile devices are moving into healthcare with rapid speed, becoming a common health tool for both clinicians and consumers. Provider organizations face a challenge in realizing the opportunities, managing the information, and mitigating the risks.

Just a few short years ago, CIOs were seeking ways to effectively ban cell phones from provider institutions, mainly out of fear of their causing electromagnetic interference. Now these same CIOs-along with other C-level executives, clinicians, health information managers, IT specialists, and others-are asking a different question: How can we most effectively, efficiently, and securely integrate the use of smartphones and other mobile devices into our institutional strategies and healthcare delivery systems?

Indeed, patients are asking and expecting healthcare organizations to facilitate the improved access to information and services that mobile devices can bring.

Now that electromagnetic interference can be effectively managed through improved shielding and electromagnetic compatibility programs, mobile devices are stimulating a revolution in healthcare, what might be called the mHealth Revolution. This is not so much because of their capabilities as telephones, but rather because they offer a wider range of electronic communication and connectedness across the spectrum of stakeholders, as well as easy, quick access to resources never before so readily available to anyone, anywhere, anytime.

The challenge for organizations, however, will be balancing the benefits of mobile devices and applications with the unique privacy and security challenges they present.

Many Users, Many Uses

Mobile devices already are offering a variety of uses within healthcare: improved disease management, advance triage of emergency patients while en route to the emergency center, public health collection and dissemination of epidemic and disaster data, ad hoc access to expert consultations from remote third-world villages, text message appointment reminders, and more.

Health consumers and patients already are online seeking health information. A 2009 Pew research report found that almost three-quarters of American adults go online and 61 percent of adults seek health information there.¹ That online research is influencing their health decisions.

Social networking sites themselves are popular with mobile device users. The popular social media site Facebook reports that more than 100 million active users access the site through their mobile devices, and that these users are twice as active as nonmobile users. Many health consumers are online seeking information from others like themselves-that is, other patients-with the result that social networking sites for patients are growing in popularity.

At the same time, clinicians are turning to mobile devices for applications that connect them with patients for improved disease management, with Web resources in the exam room for their own or their patients' education, with colleagues to seek or share advice and experiences, public health advisories, real-time eligibility determination and charge capture, and much, much more.

Providers can use mobile devices to document patient care by voice, keypad, or touch screen. Patients can record and transmit observations of daily living that allow both the patient and the physician to better understand signs, symptoms, and

treatment over time and in relationship to the circumstances of their occurrence-not just through the sporadic and truncated conversations they may have in an office visit.

Pharmaceutical companies are using mobile devices in clinical trials, and they are beginning to listen to the “informal clinical trial” data that come from patients who share information and experiences online, thus alerting companies to patient experiences with medications that they might not otherwise be aware of.

Thus mobile devices are also stimulating and facilitating the movement toward participatory health, where all stakeholders are connected and where the patient, not the clinician and not the provider institution, is at the center. This movement will profoundly change communication patterns and expectations of patients (and others) in ways we can only begin to imagine.



Balancing Risk

Patients and clinicians are typically ahead of healthcare organizations in their awareness and adoption of mobile technology. Their increasing demands and expectations that their organizations will facilitate mobile technology and mobile-based applications will require that organizations develop integration strategies.

What does it all mean for health information management? It means HIM professionals will become health communication managers, too, as they are faced with the deluge of communications and the range of communication types generated through mobile devices-far more than electronic health record systems generate and far more frequently.

HIM professionals will work with clinicians to develop systems that prioritize and effectively manage the rising information stream. Further, the increasing adoption of personal health records residing on or accessed through mobile devices will drive the need for increased and more effective efforts in integrating PHR data with clinical records.

HIM professionals must also address unique privacy and security issues. Mobile devices are lost and stolen more easily than desk computers, though it must be admitted that paper records share their “mobility” risks, at least to a degree. Organizations will require policies regarding the access, storage, and transmission of protected health information on mobile devices.

It will not be realistic to attempt total restriction-the benefits of the devices and their associated applications are too widely acknowledged and desired. Indeed, many clinicians are attracted to the devices not just

for their portability but because they offer real-time, anywhere communication capabilities that EHRs cannot deliver.

For example, physicians who can simply check their phones to monitor the progress of their patients in labor and delivery as they round on other floors will likely resist giving up such a time-saving feature.

What to Consider

As organizations review and revise their privacy and security policies and procedures, they must address topics that include:

- The selection and implementation of mobile devices and mHealth applications
- Auditing devices and applications
- Authorization and authentication
- Patient authorization to communicate by electronic means
- Audit trails of access to PHI on mobile devices

- Remotely clearing sensitive data off devices that are lost or stolen
- Picture-taking with mobile devices
- Security measures and agreements regarding use
- Triage, access, backup, and archiving of mobile-based communications
- Data encryption and automatic locking of device
- Synchronization of mobile-based data with the institution's systems

Addressing these management and security issues will require that HIM professionals work more closely than ever with C-level executives, clinicians, IT professionals, bioengineering staff, legal counsel, and even patients.

Organizations must find a balance between maximizing the benefits, mitigating the risks, and meeting federal and state requirements, particularly in regard to protected health information. The more HIM professionals and their organizations anticipate and prepare for the challenges and opportunities, the more successful they will be.

Note

1. Fox, Susannah, and Sydney Jones. "The Social Life of Health Information." Pew Internet and American Life Project. June 11, 2009. Available online at www.pewinternet.org/Reports/2009/8-The-Social-Life-of-Health-Information.aspx.

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