

## **mHealth: Are we there yet?**

*At the time of rising healthcare costs and aging populations, mobile healthcare, or mHealth, is believed to be a way to save money while helping treat more patients and improve outcomes. Pádraig McGarrigle reports.*

By the count of the IMS Institute for Healthcare Informatics, the U.S. iTunes store offered mid-last year more than 16,000 smartphone-based healthcare apps that could be classified as consumer- or patient-oriented.

And while many of those apps were in the wellness category, with diet and exercise accounting for the majority available, there were also a good number of sophisticated patient-oriented apps, such as electrocardiogram (ECG) readers, blood pressure monitors and blood glucose monitors.

(Diabetes apps numbered 230, apps focusing on heart conditions 139 and apps targeting cancer numbered 77.)

The problem was, the institute found, that most apps, whether consumer- or patient-oriented – the report did not look at smartphone apps targeted at healthcare professionals – provided little more than information, only 159 linked to outside sensors and fewer than 50 of those linked to sensors related to actual condition management.

To be sure, providing information is an important part of healthcare, and popular apps like HealthTap and Wellframe have built up sizeable audiences doing just that. But, the expectation is that mobile health will take things much further, particularly when paired with outside sensors – from providing continual monitoring of patients with chronic conditions to making sure that patients get diagnosed sooner. And the fact that it can build on common smartphones means that it can have a much wider reach.

“We’re going to look back on how antiquated we are,” says Nan-Kirsten Forte, chief customer officer at HealthTap. “In the next ten years, you will be able to spit on a little piece of paper, upload it to your mobile phone, and somebody will be able to diagnose that.”

Already, the Samsung Galaxy 4S comes with S Health, a health-tracking app that syncs with everything from blood glucose meters to blood pressure monitors. Looking further into the future, Google recently unveiled a prototype of a contact lens that could help diabetics monitor their glucose levels.

## **The virtual consultation room**

HealthTap, an app- and web-based mobile health platform, is already redefining how physicians and patients interact.

Users of the app can post questions about any health problem they might have, and doctors answer them. Answers are rated by both patients and peers, and users are encouraged to maintain a health profile online to help any advising physician. HealthTap is also trialing a service where users can pay for a private virtual consultation.

According to Forte, the physical interaction between patient and doctor is going to remain important, but the nature of the relationship will change as only appointments where it is critical for a patient and doctor to be in the same room will take place in the physical world.

“Literally, if there are five doctor interactions for everyone in a given year, today all five of those are happening in an office,” she says. “My prediction is that, in 10, 15 years, four of those five visits will be happening via your mobile phone.”

## **Changing behaviors**

Wellframe is another example of how traditional care models can be transformed via mobile. Wellframe says its goal is to “empower patients” to cut through the noise and deluge of information that heart-attack sufferers face when they are discharged following a cardiac incident.

It organizes the information – when to take drugs, what exercise to do – into manageable, daily tasks for the user, and alerts him or her via mobile phone. This is versus a traditional model of having to go to a clinic to attend classes and receive information.

What’s more convenience is only a part of Wellframe’s value proposition. “What companies are starting to do is say, ‘There’s actually a way to deliver this same exact education via mobile and text messaging,’” says Halle Tecco, co-founder and CEO of Rock Health, a San Francisco-based firm which helps fund Wellframe. “And it’s really about reducing the cost. And where you can reduce those costs, insurance companies love that.”

## **Saving money with mobile health**

With total global healthcare spending at \$6.5 trillion in 2010, a 43% increase over the previous five years, according to research firm Emergo Group, and spending continuing to rise, mobile health is expected to grow in importance when it comes to saving healthcare budgets as well.

But it is likely to be some years before reliable metrics are available on its true impact and before mobile health becomes firmly integrated into existing healthcare plans. Still, policy makers are already taking note. Currently, a bill is being proposed in the United States Congress that would see the establishment of a committee to investigate potential cost savings that mHealth could offer.

“In terms of drawing a connection between [using an app] and actually having any health benefits, no one has actually been able to prove it at this point,” says Harry Wang, director, health & mobile product research, Parks Associates. “Behavior changes take time, and impact on health conditions can be attributed to many factors. No one has been able to stitch together all of the evidence that, by using this app, by following the instructions of this app, there is a long-term benefit.”

## **Wellness not palliative care**

What also needs to happen is for mobile health to evolve past wellness- and fitness-focused apps, which remain the major trend. For example, fitness-tracking app Endomondo has more than 20 million users, and those users have logged activities in excess of half a billion miles. Another challenge is the many regulatory issues companies face around personal healthcare. And tech start-ups also need to learn how to deal with a medical industry that is conservative and often resisting change.

“Instead of getting really excited that people from different backgrounds want to come in and contribute to the healthcare space, it’s an industry that, for a very long time, has been very driven by titles and hierarchy,” Tecco says. “It’s not a meritocracy like technology, so it is really challenging, and you have to be very strong, very open to learning, and you have to be able to work with people not like you, people that really don’t like you and what you’re doing. You have to find a way to charm them.”

## **The future**

Wang stresses that product experience is going to be key “so the consumer will keep coming back.” Apps will have to engage users regularly – setting goals, offering encouragement and rewarding progress – to keep consumers using the app. “Whether there is a feedback loop providing the information that encourages the consumer in continuing use – that will be a key factor,” Wang says.

And do not expect the next breakthrough to come from one of the established players, Forte adds. “Everyone has tried health,” she says. “Yahoo has health, AOL has health, Google has health, WebMD is the established player and a worldwide brand. But it will be new companies looking at this in a new way.”

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