

Is 'Mobile Health' Revolution Made for Managed Care?

Portable interactive communications technology promises to influence health behavior as mere postcards and email messages never did. There will be big rewards for the health plans that figure out how to use it well.

By Steven R. Peskin, MD, MBA, FACP

That ring you hear may be your health plan's future. Number-crunching aside, health care is really a very intimate business, and that's why experts say the next big communications challenge for plans may be to get the most out of something we all have in our purse or pocket or on our waist: the mobile phone.

Cellular phones, of course, are everywhere — 89 percent of Americans reportedly used one last year, up from just 27 percent a decade earlier. Today, a burgeoning new field seeks to put the cellphone's ubiquity, intimacy, and interactivity to work in health care. The field is often referred to as "mobile health" — though that unrevealing tag could mean anything from a traveling X-ray van to a doc making horse-and-buggy house calls. What it really means is the use of today's personal mobile communications technology — read: cellphones, "smart" or otherwise — to engage people, both consumers and health care professionals, at opportune times to influence their behaviors in ways that can improve a plan's health care management — and its bottom line.

After all, the cellphone can do things no other medium can do — not TV, the Internet, print media, or snail mail. It promises to allow plans to communicate to members timely information and interactive education that can help facilitate im-

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proved outcomes through motivating healthy behaviors, medication adherence, and appropriate follow-up care — things that ultimately reduce costs. Also, plans may communicate with physicians and other providers with messages that inform and facilitate higher quality and guide cost-effective care.

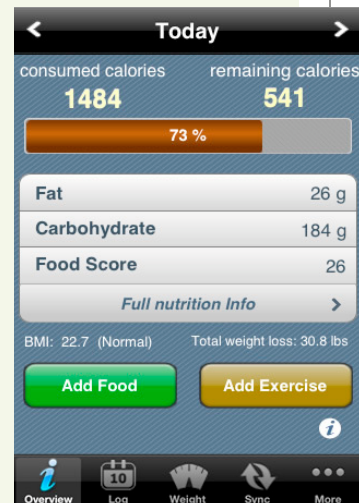
Smartphones and other mobile devices that bring the information "cloud" to and among clinicians, provider organizations, patients, health plans,

Here come the 'apps'

There's more than a hint of the smartphone's communications potential for health plans in the applications now available to help consumers maintain or improve health. For example, **Tap & Track**, [right] a \$3.99 "app" for the Apple iPhone is aimed at aspiring weight-losers; **GlucoseBuddy**, a free iPhone app, tracks glucose readings entered four times daily (there's more at www.glucosebuddy.com); and **My Blood Pressure and Heart Rate**, a free app for Android phones, allows one to enter systolic, diastolic, and heart-rate figures.

As the *Harvard Health*

Letter (a publication owned by MediMedia) noted in November, the Food and Drug Administration gave an important signal this July when it decided to allow the WellDoc DiabetesManager system to be sold as a medical device because it offers advice and coaching as well as data-crunching. This app should be available in early 2011, the publication reported, and similarly clinically active "apps for asthma, cardiovascular disease, and cancer will be on its heels."



pharmacy benefit managers, and other stakeholders will be central to progress in health care management. The systems changes represented by accountable care organizations and the patient-centered medical home will require effective deployment of mobile health. The drive toward broad-based use of electronic health records and electronic health exchange — and the prospect of rewards for “meaningful use” of electronic health records under HITECH, the Health Information Technology for Economic and Clinical Health Act — will necessarily encompass mobile health, because mobile devices are supplanting desktop and laptop computers for many Internet-based interactions.

“Mobile technology is becoming the next most important piece of health care technology, because it’s always with you,” says Archelle Georgiou, MD, a consultant who appears on a regular medical segment on a morning TV news show in the Twin Cities. “And it allows both ‘push’ and ‘pull’: Viewers can immediately access information from wherever they are, and health plans or doctors can also ‘push’ information to patients and consumers. That two-way dynamic offers a whole new way to manage health.”

Dennis DeVenuta agrees. He’s a MediMedia executive whose job is to seek out mobile communications business opportunities across that content-development company’s 17 divisions. (MediMedia is the parent company of MANAGED CARE.) “I find ways for content that has historically been distributed in brochures, pamphlets, direct-mail pieces and on the Internet to be sent through the mobile channel,” he says. And mobile, he insists, has special advantages.

One example

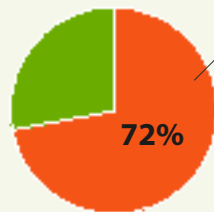
“Let’s take obesity for example,” he says. “A plan has a population of subscribers who have a problem with obesity, and that of course also means all of its comorbidities — diabetes, greater heart-disease risk, and so forth. But 99 percent of them don’t want to be overweight.”

Why docs love mobile

It’s a health care riddle worth puzzling out: Why have practicing doctors been fairly brisk adopters of mobile communications technology when so many of their practices have been sluggish about implementing other technology, notably the electronic health record?

One entrepreneur suggests that it’s cultural. “Think of why people go into the profession in the first place,” says Bob Gold, founder and CEO of Gold Mobile. The smartphone, like the beeper before it, is worn on the person and does not require organizing other people or settling down to learn secretary-like procedures, he notes. “You are not sitting behind a desk — the mobile device frees you.”

MDs and smartphones: perfect together?



Percentage of practicing physicians who now use a smartphone

Of physicians using handheld devices, those who employ them to obtain medical information several times a day **52%**

Sources: Manhattan Research; Mobile & Social Media Study from SDI, a health care analytics firm

Traditionally, he explains, managed care plans have deployed all kinds of telephone, direct mail and email approaches to coach these plan members on lifestyle choices such as diet and exercise that can affect their obesity. “But those things were communicated when you got home and you opened your mail, or when you sat down in front of the computer, or when the phone rang and you answered it,” he says. “They’d remind you, for instance, not to eat a particular food because it’s high in carbohydrates. But maybe you’d just had a carbohydrate-filled lunch. With mobile communications, you can ask your managed care company to send you a menu for lunch every day at 11:30 exactly, if you’re going to lunch at noon. It can be directed to you at the time you’re making your decisions.”

Bob Gold calls that the principle of Kairos. “It’s named for Kairos, the son of Zeus, and the god of the opportune moment,” he says. “You have to build communications strategies that enable Kairos.” Gold, who achieved success back in the ’90s by helping to pioneer the first electronically accessible 401(k) systems, is the founder and CEO of Gold Mobile, which deals in customer relationship management.

“I’ve spent 17 years in digital-to-human persuasion,” he declares. That should ring a bell for managed care executives, who have been in the persuasion

business for decades, trying to promote health screenings and healthy lifestyle choices. Gold argues that using cellphones to communicate properly timed, appropriately personal health messages can help plans reap big-time savings — trimming, for example, the cost spikes that come from unnecessary hospital readmissions.

“Let’s say you know that, after hospital treatment for a certain condition, 38 percent of patients will readmit themselves, but 80 percent of them won’t really require readmittance — they will misinterpret their symptoms and go to the emergency room,” says Gold. “You’d be able to go to our system and say, ‘OK, for two weeks from the day these patients first check out, we’re going to increase our communications, ask them more questions, educate them and their caregivers better about what really requires hospitalization, and monitor their activity. If you can thereby reduce readmission from 38 percent to 28 percent, you’ve probably saved 5 or 10 million bucks.”



When technology easily offers valuable rewards, then adoption is more likely, says Theresa Szczurek, CEO of Radish Systems.

Says Gold: “Mobile engagement provides health plans for the first time truly the ability to interact within someone’s lifestyle during the course of the day.”

The fast-growing adoption of smartphones — the iPhone, the Android, and their cousins — allows managed care companies to deliver “a more robust multimedia experience” as both cellphones and their networks become more sophisticated, says Gold. (And watch for that “robustness” to rise with the conversion of the nation’s cellphone network from 3G to 4G in the next few months.)

Theresa Szczurek, cofounder and CEO of Radish Systems, a communications company, notes that a recent Nielson study shows that 28 percent of U.S. mobile subscribers now have smartphones, up from 21 percent in 2009’s fourth quarter. Smartphone adoption is expected to increase even more dramatically in 2011 with over 50 percent of all U.S. mobile users projected to be using a smartphone by the end of next year.”

But despite smartphones’ growing prevalence, Gold insists that a focus only on smartphones “is actually the wrong executive view of mobile.”

“Having an iPhone app is a tactic, but not a strategy,” he says. “The iPhone represents about 7 percent of all phones. So if you are a managed care company and you come out with an iPhone app, what do you do with the other 93 percent of your customers?”

Holistic strategy

“A lot of communications don’t require a smartphone,” Gold adds. “Companies have to look at a holistic strategy and say, ‘How do we take advantage of the cellular and wireless technology?’ There can be simple text reminders and questions asked — a reminder to take a drug or to exercise, for example, or a request to put what you ate for lunch into a diary card.”

As DeVenuta explains, besides

Who will benefit from the coming smartphone boom?

Health applications for smartphones are poised for a breakthrough in the next five years, according to an online survey of 231 players in the mobile health market conducted this summer by a research firm called Research2Guidance. Among other findings:

- Nearly 80 percent of respondents cited diabetes as the therapeutic area with the greatest business potential. Next, in order, were obesity, hypertension, coronary heart disease, asthma, and chronic obstructive pulmonary disease.
- The Android and the iPhone were cited as the most promising for mobile health.
- Among barriers to the widespread adoption of mobile health, respondents ranked lack of standardization first, followed closely by regulation and lack of awareness of health care applications and how to access them.
- Key potential benefits of mobile health cited included better patient-doctor communications, better access to services or treatments at home or in remote locations, and increased patient compliance.
- Among the main players expected to develop the mobile health market in the next five years, health insurance companies ranked fifth, behind app developers/agencies, medical technology providers, medical device manufacturers, and telecommunications companies.
- Forty-seven percent of respondents agreed that by 2015, a major share of mobile health activities will be sponsored by health insurance companies, while 28 percent disagreed and 25 percent didn’t care to venture a prediction one way or another.

phone conversations themselves there are three basic levels of mobile communication: (1) basic SMS (for “short message service”) texting, with text messages up to 160 characters; (2) the mobile Web, with WAP (wide area protocol) sites, which allow plans to send links to Web sites with the “.mobi” suffix that permit users to see videos, and (3) downloadable apps, of which there are 500,000 for the iPhone alone.

Five billion text messages are sent in the U.S. every day, says DeVenuta, and 94 percent of them are opened. “It’s a much more personal form of communication than what email has become.

“Every day I have about 10 conversations in which a customer asks, What combination of communication should I use in mobile? Should I use SMS, the mobile Web, or a downloadable app? Generally speaking, the answer is, it all depends on what you are trying to accomplish.”

With smartphones, says Georgiou, “you can carry a lot of your health data and health history with you.” While she doesn’t think mobile technology will transform health care overnight, she does see “a significant shift in how doctors manage patients and how patients manage themselves.” She predicts that opt-in users of smartphone health communications are going to come first from two populations: people with chronic illnesses, for which it promises to make life easier, and early adopters — “the kind of people who wait in line for the new iPad.”

While health care has traditionally been an episodic concern for most people — they attend to it when they visit the doctor or take medication — mobile phones have the potential to make it more continuous. “One of the beauties of mobile technology is that it doesn’t just let people access information from health plans and doctors — it’s not just, ‘Mother, may I?’” says Georgiou, a former chief medical officer for UnitedHealthcare. “People can create their own health care reminders geared to their own lives — reminders to take medication, for example.”

But the TV-savvy Georgiou warns that to get the most out of mobile technology, health plans are going to have to develop — or find — better expertise for communicating with the public. “The more that mobile technology applications are made

engaging, entertaining, and fun — what they now call ‘gaming’ — the quicker adoption will be,” she says. “For that, health plans need to tap more expertise from the entertainment and communications media to create interactive tools to help people manage their health.

“Instead of the consumer simply logging blood-sugar readings into a chart regularly to keep diabetes controlled, for example, a game could be designed so that the more points you get for logging in your blood sugar, the closer you get to winning some prize.” She cites Humana as one company that has done well with such innovations. (At www.humanagames.com, the Web-surfer is greeted with the words “At Humana Games, playing video games keeps your mind and body fit.”)


Is mobile health already sweeping the nation? Not quite, according to “Mobile Health 2010,” a report released in October that was based on a study by the Pew Research Center’s Internet & American Life Project in association with the California HealthCare foundation. The survey of 3,001 adults found that while 85 percent of the U.S. population uses mobile phones, only 17 percent of cell phone owners have used them to access health care information. But the study’s authors expect that to change fast. The survey showed that the

use of mobile phones for health care information rose with levels of income and education, and that “health information searches and communications have joined the growing array of nonvoice data applications that are being bundled into cell phones.”

If the boosters of mobile health are to be believed, that’s only the beginning. But Georgiou sounds a cautionary note. “The fact that a technology is available doesn’t necessarily mean people will adopt it,” she says. “Health plans have to work just as hard on adoption strategies as they do on the technology itself.”

Sea change

She goes on to note that a kind of sea change will be required, though one that is already under way. “A cultural shift has to happen in which people increasingly believe they have some personal responsibility for their own health,” she says.

That will be worth watching for, on or off the phone. 



“Gaming” means making mobile technology fun, something plans will need to do, says consultant Archelle Georgiou, MD.