

Online Consumer Health Records: Revolution or Confusion?

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by Mark Hagland

Across the Internet, commercial services are developing online consumer health records. How do these work? What are the implications for HIM professionals? This article takes a look.

Like a sudden gust of wind whipping across a prairie frontier, a new phenomenon is emerging in healthcare. That phenomenon, the rapid development and spread of consumer health records or personal medical records (the products are so new they don't yet have a standardized name), holds tremendous implications for the future of HIM and the HIM profession.

Yet the "consumer health record" idea remains so new and so tentative that it is difficult to generalize about it. What is clear is that the products and services in this area are mushrooming quickly in terms of number and scope, as information technology vendors and Internet companies leap into what could be a promising subfield.

At their most basic, consumer health records or personal medical records deposit elements of personal health information online for access by consumer/patients, their families, their physicians and hospitals, and sometimes by their health plans or insurers, employers, and others. These records come in a variety of forms and formats and are being maintained by a whole range of people and groups, from the consumer/patients themselves to any of the groups in healthcare who might normally maintain a medical record.

A variety of information technology and Internet vendors are crowding into the new field and are pitching their products and services to different groups and with different messages. For example, some consumer health records are being marketed as services that allow patients and their providers to quickly access vital personal health information during a medical emergency while the consumer/patient is traveling, while others are offering their services as a "value-added" to health plans or employer groups; still others are trying to facilitate better provider-patient communication.

Many of these products and services are more or less "floating in cyberspace" as independent or semi-independent files on the Internet. However, a very few companies are trying to create a continuum between the electronic medical record as maintained in a physician office or hospital and the consumer/patient.

A Link to the EMR?

One of the very few ventures that takes the EMR as a starting point is that being developed by MedicaLogic, in Beaverton, OR. MedicaLogic has been working with four beta sites around the country, linking its EMR products, Logician Enterprise and Logician Internet (for medical organizations and individual physicians, respectively) with a service called "98point6.com" (formerly known as "AboutMyHealth"), to allow physicians to share what is in the updated electronic medical record with their individual patients online.

Using HIPAA-compliant security technology, AboutMyHealth/98point6.com is facilitating physicians' communications with their individual patients. Essentially, everything that is in the EMR can now be safely relayed to a patient's authorized PC for the patient to review and refer to.

One of the four beta sites nationwide that are working with the product is Wilsonville Family Medicine, a two-practitioner, one-nurse practitioner clinic located 15 miles south of Portland in the suburb of Wilsonville and one of 28 Oregon clinics owned by the Portland-based Providence Health System. Wilsonville Family Medicine has had the AboutMyHealth/98point6.com product

installed since September 1999, and results so far have been extremely encouraging, says Dick Gibson, MD, PhD, Providence's medical director of information services.

"We got into this because we felt that it would empower patients to know more about what's going on and would encourage communication between patients and physicians, which we think is important; it also leverages an investment that we have already made in electronic medical records," Gibson says.

Indeed, while EMR development at Providence has been expensive, adding on the Internet capability has proven to be a very small added expense, Gibson reports. And though only about 5 percent—about 130 of the clinic's 2000 patients—have had access to the new product so far, Gibson says that early anecdotal experience has been that patients, physicians, and nurses all love it.

Essentially, the problem list embedded in MedicaLogic's EMR is relayed to a secure server for the patient to look at. Before putting the problem list onto the server, the physician goes over the information contained in it with the patient. And once the information has been relayed to the secure server, the patient can get onto the MedicaLogic site and look at the information, leave messages for the physician or for the clinic staff, or receive messages from them (such as appointment-scheduling messages) through an encrypted browser. For added security, the messages don't go through any Internet mailbox, but rather go through a secure queue on the Web site.

Gibson says this kind of system has many benefits. "Patients are going to want this," he says, "and they're soon going to expect to have pieces of their record online. And they'll ask more questions and be more of a player in healthcare decision making, because they'll have more tools. So, for instance, if there's a note in the problem list on the medical record that says their cough is a result of mycoplasma pneumonia, they'll have an Internet link that can lead them to a definition and explanation of mycoplasma pneumonia; or if they have essential hypertension, they can find out instantly that it's high blood pressure from an unknown cause." The service will enrich the patient-physician clinic visit, he argues.

In fact, MedicaLogic CEO Mark Leavitt, MD, PhD, says the development of these products in healthcare simply parallels the consumer-centrism already long evident in industries like banking, where consumers can examine their banking activity 24 hours a day in a secure electronic environment. If banking can make information readily available, why not healthcare? he asks.

The expansion of the EMR product into consumer service also makes strategic sense for MedicaLogic as a company. "Until very recently," Leavitt says, "when you said, 'We'll put the electronic medical record online,' everyone would reel back in horror. But if you start thinking about it for a while, people realize this is how it has to be; indeed, we believe tremendous additional value from electronic records is going to be unlocked."

Keeping Track: One Expert's Framework

Jane Metzger, a vice president in the Boston office of First Consulting Group, has developed a framework for understanding the different types of products and services now entering the online personal medical records market. "I really did this simply to help myself understanding what's going on out there," says Metzger, who adds, "if you're confused by it all, there's a good reason for that!"

Part of the problem, she says, is that, "as in many other things in healthcare, we're all using inconsistent terminology or the same terminology inconsistently, and there are all kinds of players and business models." Below are the types of models she has identified. It goes without saying that in the anything-goes development environment surrounding these products/services, new variations and even types could emerge at any moment.

- **Patient-maintained personal medical record.** The largest number of providers of consumer health records are in this category, and there are two subtypes. The first is essentially a stand-alone file maintained by the consumer/patient, into which the consumer adds additional information over time. The second subtype, Metzger notes, involves personal medical records maintained by the patient but attached to other types of information—for example, maintained within a Web space maintained by a larger entity. The focus of these products is on keeping track of medications and health events, and sometimes those are also tied to tools like health risk assessment.

- **EMR extension.** Then there's the kind of record that is being developed by MedicaLogic, as mentioned above. It is essentially an extension of the electronic medical record out into cyberspace, where the consumer/patient can look at the record and check on its content. The record is still maintained by the physician and by the medical organization, but it is available to the patient in an online format. Advocates of this kind of product say it is the most legitimate and valuable of the types available; others say that its development will be relatively slow. IDX, Cerner, and Epic are companies Metzger says are still in the development stages in terms of creating similar products/services.
- **Provider-sponsored data management.** A third type, so far very limited in terms of the number of groups attempting it, is the creation of a type of service on the part of healthcare provider organizations that gives patients access to something coming from the provider organization's electronic database. Metzger says she's aware of only two initiatives in this category, the PCASSO project at the University of Southern California, and a project at Columbia-Presbyterian Medical Center in Manhattan, both of which are testing how much (and in what form) information patients should be given access to online. (For more on the PCASSO project, [click here](#).)
- **Personal Web site.** This model, which is another variation on the patient-maintained personal medical record, sometimes is combined with that model or overlaps it. Vendors like Medivation are providing this kind of product/service, which is sponsored by the physician and creates a communication vehicle between physician and patient that can include things like reminders for immunizations or flu shots or allow for appointment scheduling or prescription refills. Very often, personal Web site products offer monitoring tools for programs like disease management programs, in which regular collection of data from the patient is desired.
- **Patient interface.** Another variation on the patient-maintained personal medical record is the patient interface, which is problem- or disease-focused and sometimes also involves interactive voice-response technology as well. Like the personal Web site, this product/service allows for regular communication between physician and patient and the regular collection and exchange of data and information.

Competition to be Consumer-centric

That having been said, most of the competitors in the personal medical record area are following strategies very different from those of MedicaLogic. Indeed, many believe that a proprietary EMR-based approach will necessarily prove too slow for broad adoption.

One executive firmly in that camp is Geoffrey Rutledge, MD, PhD, director of clinical informatics at Healtheon/WebMD, the corporation created nearly two years ago by the merger of Healtheon, the Santa Clara, CA-based electronic commerce company, and WebMD, the Atlanta-based Internet services firm that offers a variety of support services to physicians. Healtheon/ WebMD's product, the personal health record, fits in beautifully with the strategy of the merged corporation, says Rutledge. Giving consumers their own personal health record files to maintain online supports what he calls the "triangle" of the company's customers—the consumers, physicians, and healthcare institutions.

"What we're trying to do is to create a place where any individual can store health information and have it accessible electronically, and the only way you can do that is through Web-based technology," explains Atlanta-based Barbara Demster, RHIA, the company's chief compliance officer. "If you travel a lot—and we are a very mobile society—and you need access to your health information in an ER 3,000 miles from home, you can access that information across all providers electronically."

That rationale is typical of the many offerings in the largest category of products and services, the consumer-maintained online health record, which Healtheon/WebMD's approach typifies. At its most basic, the consumer who has registered with Healtheon/WebMD completes a personal health inventory that includes many of the questions he or she would fill out on paper when first visiting a doctor's office (medications, allergies, active medical problems, names of physicians, insurer, etc.) and then maintains that file and authorizes release of information to designated providers and others as appropriate.

"Central to that ability to organize services is a consumer-empowered personal health record," Rutledge argues. "The fact is, the consumer cannot control their institutional health record. In various manifestations, other companies are trying to give consumers some control of the institutional health record, but the reality of the healthcare system is that this isn't possible; even if the primary care provider or health system lets them control their primary care-based record, it doesn't help when they go to

a specialist, they're not empowered to manage that. So our purpose is to create a single record that's portable and permanent and always in their control."

Most of the companies jumping into the consumer health record industry are pursuing variations on the same theme. At the Concord, MA-based Medifile, for instance, registered consumer/patients (who are usually members of sponsoring health plans that offer the Medifile service as a value-added membership benefit) deposit information into an "account" that is essentially an electronic file.

The member who has registered and deposited information is given a credit card-style identification card and other forms of ID and is able to authorize immediate retrieval of the information in the account to physicians and emergency department staff members while traveling. Medifile's service is in turn supported by a business call center and an RN-staffed emergency call center that helps manage emergency authorization and relaying of information via fax and phone.

Like some services, Medifile limits the amount of information that can be stored. The company allows consumer-members to store up to 15 pages or documents of health information, in order to keep the process streamlined, says Jack Esselen, Medifile's CEO and founder. Nor are services like Medifile's intended to replace the traditional medical record, whether paper-based or electronic, he insists. Rather, such services are offering a value-added service for mobile, active healthcare consumers.

As to which fundamental type of service consumers will be most drawn to—the personal health record linked strongly to an institutional EMR product or the more free-floating kind of consumer-managed service—the debate rages.

Dismissing the notion that EMR-extended products like MedicaLogic's are too narrow and proprietary, MedicaLogic's Leavitt says, "People are very suspicious about health plans having all that information [in regard to products like Medifile's] and pushing it around. I think people would be more trusting of physicians. Also, most of these other companies are relying very heavily on consumer-provided information, which can be incorrect. PersonalMD.com, for example, says, get a copy of your record from your doctor and fax it to us, and we'll keep it online. My problem with that is, is that legible? And it won't it go out of date right away?"

Some believe that both types will make headway, though not necessarily at equal rates of growth. "There are a lot of vendors now that provide Internet-based services to track specific physiological or other indicators—exercise, nutrition, etc., but attached to a specific disease condition like diabetes and congestive heart failure—and people are using these online journals, diaries, medical records, whatever you want to call them, on a pretty regular basis," notes Kurt Miller, a vice president at Andersen Consulting. "So I think that's already far and away the market lead in terms of use, and I would see that continuing in that direction, simply because it's easy, fast, convenient, and portable." At the same time, he says, he sees a wide variety of types of personal records, from comprehensive health records to fragments or pieces of the overall health record to track specific conditions for patients with particular disease or health conditions.

Changing the Role of the HIM Professional?

On a very basic level, simply keeping track of this proliferation of efforts is taxing, particularly because the wide variety of initiatives and enterprises defies easy generalization. One industry observer who has done an inventory of the various efforts is Jane Metzger, a vice president in the Boston office of First Consulting Group. Metzger created a framework for understanding the existing offerings (see "[Keeping Track: One Expert's Framework](#)") which she plans to elaborate on soon in a journal article.

Indeed, almost as if to spite those who would try to get their arms around the emerging phenomenon, Metzger says, "You see vendors getting broader and broader" in their offerings, "and that's because one of the truths in this space is that if you really want patients to use something, then the more value you add and the more they'll use it." So things aren't likely to get any simpler soon.

More fundamentally, she says, the question is, will these products and services be useful to patients? And will patients maintain and add information to them? Metzger says she agrees with Mark Leavitt that products like MedicaLogic's will be seen as more trustworthy and reliable, but that the small number of practice sites involved with such products will give independent products a practical edge.

Perhaps the biggest question of all, as far as HIM professionals are concerned, is, how will the emergence of these products and services change the role of the HIM professional? On that score, as on all the others, there is debate.

Many industry observers, like MedicaLogic's Leavitt, argue that as consumers gradually take control of their own health information and the paradigm shifts from an institutional to an individual one in terms of electronic health information, there will necessarily be a need for fewer HIM professionals at some point down the road.

"I do think the EMR will reduce the amount of raw hand labor in the profession," Leavitt says. "But it will increase the value of knowledge workers. There are probably fewer people turning screwdrivers on cars these days, but the people manipulating robots will have very secure jobs. In that way, healthcare is like any other industry." The development of personal medical records and health information online "will reduce the raw head count, as computerization is doing in every industry. You just have to face that," he says.

At the same time, he says, "There will still be a role for HIM professionals to do audits to make sure charts aren't deficient; and there's going to be a tremendous role for them in security and confidentiality. They will no longer spend as much time on the old routine, paper-based chores like hunting down misfiles, but it will truly become health information management. HIM professionals will be doing what their title states, managing health information. I think it will be a very exciting job."

But a consultant and former medical records director disagrees. "I don't think there will be a need for fewer people; rather, I think we'll have to continue to evolve to understand what's needed in data systems and healthcare information in general," says Stanley Greenberg, RHIT, president of Greenberg & Associates, a Skokie, IL-based consulting firm, and a former medical records manager at the Cleveland Clinic Foundation, Henry Ford Health System in Detroit, and Northwestern Memorial Hospital in Chicago. "For example, the need for qualified coding specialists has grown, and that's an area that will continue to be necessary and to evolve," he says.

Greenberg, who serves on the board of 4medicalrecords.com, another start-up personal medical record firm, believes that HIM professionals will end up managing the online dimension of personal health information on top of the institutional EMR and the institutional paper record. In other words, he says, HIM professionals shouldn't feel threatened at all. "This will simply add another dimension. After all, I never imagined myself getting involved with a Web site or consumers getting involved; this is very exciting."

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