



NaviNet

Where healthcare comes together.

Improving the Quality of Care by Electronically Linking Patients and Providers

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Introduction

From the first use of telephony in healthcare to the emergence of the Internet, improving care by using information technology to facilitate communications between patients and providers has been a source of high expectations and controversy.

Employers and health plans expect that the use of secure email, personal health records (PHR) and home monitoring will ultimately raise the quality of healthcare while blunting the upward trend in costs. Patient advocates are concerned about the privacy and security of health information. Providers are concerned about liability exposure, the high cost of office automation and if activities such as responding to patient email will adversely affect practice income.

The availability of technology and the disaffection of patients and providers resulting from the complexity of the healthcare delivery system are driving the pace of change. Patients, newly empowered by access to information once only available to their providers and ready access to email are, in many cases, dragging reluctant providers along.

Recent survey data have confirmed patient interest in greater control over their healthcare and better access to their providers and to their personal health information. Examples of improved quality and lower cost of care because of improved electronic communication between patients and providers are beginning to accumulate.

As solutions from health plans and vendors proliferate, providers will demand a cost-effective, integrated solution to rationalize these new forms of patient communication with their office workflow. Provider support will be essential to realizing the benefits of these capabilities.

Market Challenge

It may come as a surprise that the first telephone call was a call for medical assistance. Alexander Graham Bell had spilled sulphuric acid onto his clothes from the wet battery powering the call. "Mr. Watson, come here, I want you," was a cry for help that led his assistant to render first aid. Providers may be the first professionals required to have a telephone¹. Its use in healthcare has been the subject of heated debate focusing on the same issues now raised by the adoption of the Internet in healthcare. However, while debate over the telephone unfolded over many years – it took over 45 years to reach 50 million subscribers – it took the Internet less than five years to achieve the same subscriber base².

The Institute of Medicine (IOM), in 2001, called for redesigning healthcare for the twenty-first century: providing safe, effective, patient-centered, timely, efficient and equitable care³. Some have argued that, to achieve these goals, it will require a system that allows patients to share information and control with their providers⁴. Such a system would rely on the Internet and the availability of authoritative health content and tools such as the personal health record (PHR), secure email and home monitoring.

The healthcare industry is under pressure to find more affordable, convenient and accessible services. While this pressure comes from employers for whom the cost of employee health insurance is eroding margins and competitiveness, it also comes from disaffected patients and providers. Patients frustrated by the complexities of the healthcare system, reaching their providers by phone and long delays in scheduling visits that always seem too brief are looking for alternatives as they absorb more of the cost of care. Providers, burdened with administrative and reporting requirements, larger patient loads and fears about losing control of patient care decisions also are frustrated^{5,6,7}.

As the number of patients with Internet access continues to grow, they are expressing a strong interest in using this channel to communicate with their providers. When asked which technologies they would be interested in using when seeking medical care, recent surveys have focused attention on email, reminders and home monitoring among others^{8,9}.

Table 1

Consumer Interest in Technology When Seeking Medical Care.*			
Variable	Yes, Would Like	No, Would Not Like	Not Sure
		percent	
Which of the following technologies would you like to have access to when seeking care from a doctor or hospital?			
An electronic medical record to capture medical information	64	18	19
E-mail to communicate directly with my doctor	74	14	13
Ability to schedule a doctor's visit on the Internet	75	14	11
Receiving the results of diagnostic tests by e-mail	67	22	11
A home-monitoring device that allows me to send medical information (such as blood-pressure readings and blood tests) to the doctor's office by telephone or e-mail	57	21	22
Reminders by e-mail from my doctors when I am due for a visit or some type of medical care	77	13	9

* Reprinted with permission from the *Wall Street Journal* online (www.wsj.com).

In addition to these capabilities, the PHR has been a subject of intense interest by employers and health plans who see it as a means to greater employer/patient satisfaction and reduced costs. However, to date, usage remains low with survey results showing no more than six percent of patients accessing their PHRs on a monthly basis¹⁰.

The level of patient interest in various forms of online communication has led some to observe that their patients are dragging providers along,¹¹ while a more constructive view has it that providers may discover that their patients are a reliable bridge to emerging medical knowledge¹². While patients and their advocates have concerns about the privacy and security of their health information, providers have posed the greatest challenge to the adoption of online tools.

When is it appropriate to substitute email for a phone conversation or a face-to-face encounter? While each may have similar content, words on a page are not substitutes for how a patient sounds or appears¹³. Providers are concerned that email inquiries from patients will compete for their time with income generating encounters. Unlike phone calls, email is self-documenting, raising the specter of greater liability exposure. Liability could attach to a decision to use email in place of a face-to-face encounter. Email also raises the stakes when it comes to protecting patient privacy under HIPAA.

While opinions differ about the pace of change, most observers agree that electronic communications will profoundly alter the doctor-patient relationship – some aspects enhanced and others threatened¹⁴. As patients gain greater access to Web-based resources, providers will no longer hold a monopoly on health and medical information¹⁵. The need to integrate patient and provider use of online resources has become an urgent matter.

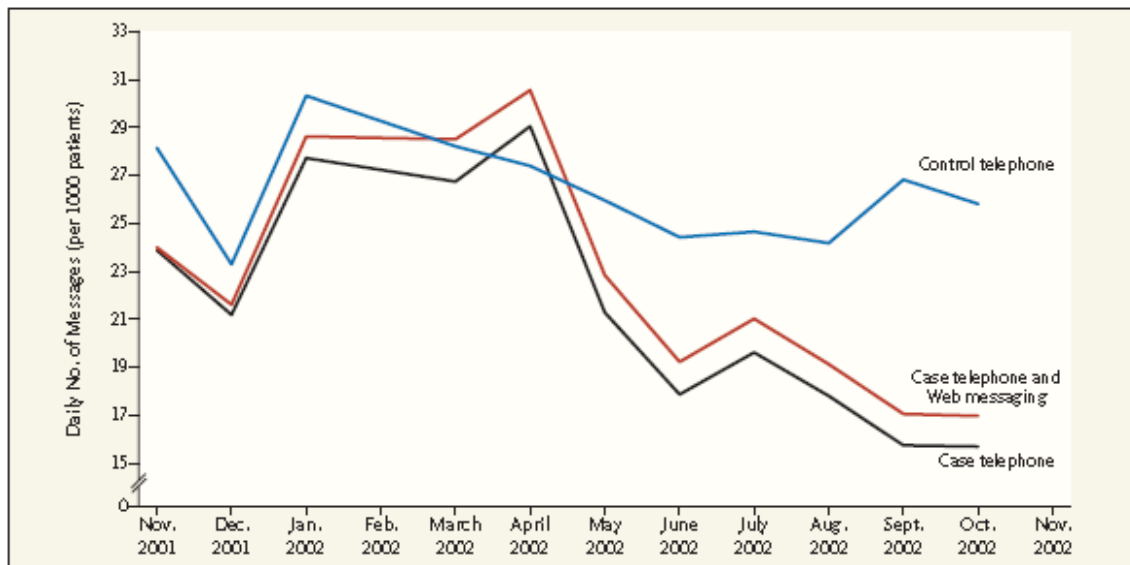
Today's Approach

Evidence from the field already provides some insights into many of the questions raised by the growing demand and use of electronic communications between patients and providers.

Self-insured employers such as Intel and Wal-Mart have taken the lead in setting up PHRs for their employees and are using it as a way to channel them into health and disease management programs. National health plans such as Aetna® and Cigna are deploying PHRs and supporting secure email communication between their members and physicians through third-party tools and experiments with compensating physicians for e-encounters and both Microsoft and Google have thrown their hats in the ring^{16,17}.

Large medical groups such as the Palo Alto Medical Clinic are also exploring this new model of patient-provider communications. PAMFOnline has been in use since 2002, allowing patient access to lab and other clinical information and supporting electronic communications with their providers¹⁸. Provider survey data has shown 90 percent were satisfied and felt that patients were using the system as expected. One of the benefits accruing to the medical group has been a perceived increase in efficiency. This experience is consistent with data from other sources, as illustrated in Chart 1.

Chart 1



Reduction in Telephone-Message Volume through the Use of Electronic Communication.

The numbers of incoming telephone calls and e-mails from patients to a group of physicians provided with a Web-messaging system (cases) are compared with the number of calls to a group of physicians who used only telephones for such communication (controls). Among case physicians, the number of messages was significantly reduced during an 11-month period: by 18% for telephone calls ($P=0.002$) and by 14% for all messages ($P=0.02$). (Adapted with permission from the *Journal of General Internal Medicine* 2005;20:52-7. Figure courtesy of Dr. Eric M. Liederman.)

Administrative staffs embrace the use of Web-based messaging for routine tasks that lead to a reduction in practice call volume¹⁹. Patients are delighted with their new sense of empowerment and one-fifth of those responding to the PAMF survey reported they had changed their health behavior because of having access to PAMFOnline.

A survey conducted by Deloitte found that patients are looking to avoid unnecessary office visits that take time away from work and incur other expenses such as the cost of travel. They want expanded use of Internet tools to communicate with their providers and are prepared to switch to providers who use these capabilities. One in four say they would be willing to pay extra for such services and the majority want to share decision-making with their provider²⁰.

However, the same survey has shown a wide gap between patient interest and what tools they can use today to communicate with their providers who remain the most trusted resource when it comes to managing their medical conditions. For instance, 76 percent of patients would like to communicate with their provider via email but less than ten percent have used this capability. Health plans believe the low usage of PHRs by patients is because of lack of awareness of their availability and a lack of understanding of their value²¹. If physicians are still the most trusted resource for patients, who better to address these issues?

A Better Solution

While this and other findings are suggestive of change, the challenge to developing widespread adoption of these capabilities remains. The next stage in their evolution requires creating efficiencies and cost savings for provider practices that free them to explore the benefits of online communications with their patients and a platform that facilitates integrating these capabilities in their practices.

The increasing use of multi-sponsor Web sites – free to providers, they offer secure access through a single logon to the many health plans and other organizations with which provider practices interact – is creating these efficiencies for small and large practices alike. Their

adoption creates unprecedented access to the office workflow that allows staff to deal with incoming messages from patients for routine tasks such as the need for an appointment while directing clinical messages to the appropriate provider.

The combination of the NaviNet® provider communications Website and the national network of provider practices that use the site routinely to interact with health plans and other organizations, is ideally suited to advance the adoption of patient-provider communications. NaviNet has become the essential workflow tool in these offices, creating administrative efficiency for both sponsors and providers. It has also contributed to improvements in provider practice revenues.

Providers are still the most trusted resource for their patients and their support is essential to drive adoption of new patient-provider communication capabilities. Survey data show that provider offices place their trust in NaviNet and are more likely to adopt new capabilities integrated with NaviNet. Health plan or vendor tools such as PHRs, secure email and home monitoring, seamlessly integrated with NaviNet, will allow providers to avoid the inefficiencies of managing multiple standalone solutions and make it more likely these tools become a regular part of the daily routine in provider practices.

Conclusion

The healthcare industry is under pressure from employers, patients and providers to foster more affordable, convenient and accessible services that will improve the quality of care and better manage costs. Employers and consumers are driving the trend towards enhanced, Web-based electronic communication between patients and providers that are essential ingredients in achieving these goals. Although providers have resisted these efforts, evidence is accumulating that addresses their concerns. Provider support for these new capabilities is essential. Accessing this support first requires creating cost savings for provider practices that frees them to explore the benefits of online patient communications and the ability to integrate these capabilities with their primary workflow tool. NaviNet combined with its national provider practice network are ideally suited to deliver on that support and to meet the challenge of integrating electronic communications between patient and provider.

¹ Aronson SH, The lancet on the telephone 1876-1975, *Medical History*, 1977, 21: 69-87

² Goldsmith J, How will the Internet change our health system?, *Health Affairs*, 2000, 19/1: 148-156

³ Institute of Medicine, *Crossing the Quality Chasm: A New Health System for the Twenty-first Century* (Washington: National Academics Press, 2001).

⁴ Tang PC, et al, The missing link: bridging the patient-provider health information gap, *Health Affairs*, 2005, 24/5: 1290-1295

⁵ Ibid

⁶ Delbanco T, et al, Electrons in flight – email between doctors and patients, *N Engl J Med*, 2004, 350;17: 1705-07

⁷ Kassirer JP, Patients, physicians, and the Internet, *Health Affairs*, 2000, 19/6: 115-123

⁸ Stone JH, Communication between physicians and patients in the era of e-medicine, *J Engl J Med*, 2007, 356;24: 2451-54

⁹ Deloitte Center for Health Solutions, *Survey of Health Care Consumers*, 2008

¹⁰ Forrester Research, *PHRs: From Evolution to Revolution*, 2007

¹¹ Kassirer JP, 2000, op. cit.

¹² Goldsmith J, 2000, op. cit.

¹³ Kassirer JP, 2000, op. cit.

¹⁴ Kassirer JP, 2000, op. cit.

¹⁵ California Healthcare Foundation, *E-Encounters*, prepared by First Consulting Group, 2001

¹⁶ Forrester Research, 2007, op. cit.

¹⁷ Los Angeles Times, *Online house calls click with doctors*, February 4, 2008

¹⁸ Tang PC, et al, 2005, op. cit.

¹⁹ Stone JH, 2007, op. cit.

²⁰ Deloitte, 2008, op. cit.

²¹ Forrester Research, 2007, op. cit.

Aetna is the brand name used for products and services provided by one or more of the Aetna group of companies.

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