

# Physicians, Patients, and E-health



*The Health Insurance Portability and Accountability Act of 1996 will be a significant force in the development of a hospital Internet presence. HIPAA's effect will be on the imposition of standards across the industry. The implementation of data exchange standards speaks directly to the hospitals' and physicians' ability to easily obtain interfaces that allow patients to access their data over the Web. For patients, it means faster registration, medical histories that are current and accessible, and insurance reimbursements that arrive in weeks instead of months. These improvements represent a quantum leap in customer service aspects of the patient-provider interaction, and will do much to improve patients' satisfaction with their current providers.*

In most major markets in the U.S., 50% to 60% of adults have access to the Internet.<sup>1</sup> This level of Web access has had a marked effect on healthcare consumers, because it translates directly to better-informed patients. In 1997, nearly 45% of Internet users searched for health information, and health related keywords are among the most indexed. By the year 2000, it is expected that 30 million people would use the Internet as a resource for obtaining health and medical data.<sup>2</sup> Most physicians have had the experience of patients coming to their office with reams of paper downloaded from the Internet. It is this level of consumer awareness that has been one of the driving forces for developments in hospital Web technology.

Many hospitals have had first generation Web sites — electronic versions of their printed advertisements and directories — for years. The more Internet-savvy hospitals are updating their Web sites to provide much more. These organizations are using improved Web sites to provide clinical and wellness information for the public and their patients, to enable the

public to search for providers that practice at their facilities, and to provide an easy way to send e-mail to physicians or departments. Healthcare organizations are making Web site enhancements a top priority because more of their customers are becoming Internet-savvy.

## **Internet's Effect on the Provider-Patient Relationship – the Patient's Perspective**

Early uses of the Internet as sources for clinical information were not interactive. Content providers published documents containing clinical content on the Web. Large numbers of content resources have been developed over the years, most surrounding high-profile diseases like cancer or diabetes.

The National Cancer Institute (NCI) has published state-of-the-art treatment information for oncology physicians and their patients on the Internet for over 10 years. This treatment information, maintained and updated on a regular basis by editorial boards of experienced oncology physicians, currently covers nearly 100 different cancers, and is provided in versions customized for health professionals and for patients.

Many oncology physicians can tell stories of patients arriving at their office with folders full of documents downloaded from the NCI's Web site, discussing the latest treatment methodologies for their disease. The NCI's Web content goes further than just discussion of diseases; it lists (and now allows sophisticated searching of) clinical trials currently underway for new treatment methodologies and drugs, and has greatly expanded patients' access to the newest treatment strategies.

In the last several years, these sources of clinical information have reached the second level of interactivity — communication exchange. Web

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communities have been spawned from the static sources of clinical information, giving patients a whole new level of involvement. The University of Pennsylvania offers OncoLinc ([www.oncolinc.com](http://www.oncolinc.com)). Their Web site offers not only treatment information, but also on-line communities where patients can gather to provide support and share information.

These on-line “congregations” of patients and caregivers represent a powerful step forward. Online support groups are convenient for busy people. They offer anonymity, a powerful advantage when dealing with sensitive subjects. Perhaps most importantly, they offer interactions with peers, people who are experiencing the same problems. Some of these support groups are self-moderated, but an advice nurse runs many others. Combined with static information resources, such a Web site has an attraction for many patients and the powerful capability to involve patients and their families in their care. This level of knowledge is believed to improve compliance with treatment and ultimately reduce costs. Various studies have shown fewer hospital admissions and reduced lengths of stay among patients who belong to support groups.

This level of involvement represents a fundamental change in medical decision-making. It is one of the great ironies of modern medicine that the person with the most invested in the outcomes of medical decisions, the patient, is usually the person with the least amount of information. Other pressures on the provider prevent the kind of education needed for patients to make a truly informed decision. The Internet changes that. Patients can acquire large volumes of information about their condition, conduct discussions with others that have made the same decisions, and make decisions with knowledge that allows for a truly informed decision-making and consent process.

This virtually unlimited access to educational resources has allowed one other significant shift to occur: a practical focus on wellness. The concept of healthcare from a wellness perspective is not a new idea; healthcare providers and insurance companies

have been touting it for years. The problem has always been that a focus on wellness has required much patient education, far more than the current financial dynamics of the patient-provider relationship will allow. The Internet, however, can serve as a 24-hour-7-day-a-week counselor, providing patients with the kind of personalized education that was largely impractical until now. Interactive Web sites enable consumers to receive customized presentations at a time and place convenient to them.

One Web site with a significant focus on wellness is [drkoop.com](http://drkoop.com), which includes wellness topics such as nutrition, fitness, and disease prevention. The site is interactive, and provides information in the forms of articles, chat rooms, and bulletin boards. This approach is very popular with healthcare consumers — as evidenced by more than 1.5 million visits each month.

Another example is the Web site of the Swedish Medical Center ([www.swedish.org](http://www.swedish.org)), which features RiskCalc, an online health risk assessment. Visitors are prompted to answer questions about lifestyle and medical history so they can receive calculated risk factors for the likelihood of contracting diseases, such as high blood pressure or heart attacks.

### **Getting Involved in the Provider-patient Relationship Using the Internet – the Hospital’s Perspective**

Consolidation in the hospital market and the development of the vertically integrated healthcare enterprise have made market forces a dominant factor in the strategic operation of the modern healthcare organization. The ability to capture the attention of the healthcare consumer is now a key factor in the success of the organization. The Internet provides an ideal vehicle for this marketing — a low cost, rapidly deployable tool targeted at a desirable subset of the population.

Hospitals have been involved in marketing for their specialty physicians for many years, primarily through physician referral lines. Competition for

physician referrals is fierce with local medical associations, insurance providers, competing hospitals, and general Internet referral sources each fighting for the opportunity to refer patients.

A typical hospital may spend up to \$10 to make a single referral for one of its physicians. The Internet enables patients to get the same referral for less than \$2, and the Web referral engine can provide much more detail on the services offered by the physician, greatly increasing the chances of a successful match.

Many health systems are realizing benefits from providing healthcare content as well. Memorial Health Services, a five-hospital delivery system in Southern California, provides health information for its local area on America Online. Statistics show that this area on AOL's Digital City receives 15,000 visits per month, and that users remain at the site for an average of 15 minutes.<sup>3</sup> This level of contact time with patients provides much credibility and brand identity. Many patients, when seeking a physician or hospital in a new community, have no awareness of which provider to choose. By providing an informative Web site with links to all of its services, the institution will go far in convincing the prospective consumer that this organization is a reliable choice for providing their health services.

Wellness education also can produce profits for the healthcare institution. Pioneering HMO Kaiser Permanente has introduced a Web site that covers a full spectrum of services for its patients, enabling them to reduce healthcare costs while providing better customer service. Some examples:

- Research health conditions and drugs in on-line encyclopedias.
- Generate individualized diet, exercise, and disease prevention information by filling out a personal health assessment
- Send non-urgent medical questions to an advice nurse or pharmacist via e-mail

- Make a doctor appointment
- Participate in discussion boards with Kaiser staff participating to ensure quality advice
- Browse through links to other Web sites through links that have been screened for accuracy.<sup>4</sup>

The Swedish Medical Center Web site is an outstanding example of how Web technology can benefit a healthcare organization.

The Web site was designed to reach a technically sophisticated audience, and meet the following outcomes:

- Give site visitors both the information they need and the impetus to select a physician at Swedish, thereby generating revenue.
- Build ongoing client relationships
- Preserve the strength of the Swedish brand.

The Web site, in various forms, has succeeded in this task. On-line referrals alone produce a monthly revenue exceeding more than \$50,000, with the site paying for itself in the first three months.<sup>5</sup> Information is available on a wide variety of diseases, and visitors have the option of signing up for e-mail delivery of information about their disease, thus keeping the Swedish name in front of them on a regular basis.

The rapid payback from this award-winning site illustrates exactly why hospitals cannot afford to wait before getting involved in Internet technologies. The bricks and mortar investment in this technology will pay short and long term benefits from the marketing aspects alone, while providing the hospital with the Internet foundation to develop other cutting-edge areas that promise even larger benefits in the future.

## **HIPAA and Superior**

Superior will be a leader in the digital transformation of healthcare. Our e-health services begin with strategic e-health business planning, working closely with executives to connect their current off-line business planning with on-line opportunities to

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electronically interact with physicians, consumers, and business partners. Transforming your business also requires transforming business processes around e-commerce. This is essential to reaping the return on investment available through e-health strategies.

The technical infrastructure to implement e-health solutions includes the following aspects: network and server capabilities, security, integration in leveraging current information systems, and actual Web development. Superior has focused extensively in the area of healthcare information technology and possesses the breadth and depth of resources to leverage current investments and recommend the appropriate solutions that will support HIPAA standards.

### **Together We Can Achieve the e-Health Community**

The future of healthcare requires data standardization, security and confidentiality, and a digital transformation of our industry. Innovative CEOs who take advantage of implementing e-health strategies early will gain a competitive market position as well as show a reduction in overall costs. Superior's goal is to assist executives in leveraging current investments, understanding HIPAA legislation, and becoming leaders in the digital transformation of their organizations to better reach their consumers, physicians and business partners.

<sup>1</sup> Jonathon Schaffer, M.D., President and CEO, Harmonie Group.

<sup>2</sup> Miller TE, Reents S: Cyber Dialogue as found in "The Health Care Industry in Transition: The Online Mandate to Change."

<sup>3</sup> Bazzoli F, "Inside Health Care's Innovative Web Sites "; *Health Data Management*, July 1999.

<sup>4</sup> Weber, DO, "Web sites of tomorrow: How the Internet will transform healthcare"; *Health Forum Journal* May/June 1999; Vol. 42 No.23, PP 40-5.

<sup>5</sup> *Health Management Technology*; April 1999. Pg. 44.

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