



Chapter 13

Physician Use of Web-Based Technology: Hype vs. Reality*

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The Internet, particularly the World Wide Web, is redefining “how we do business” for the service and manufacturing sectors of our economy. In health care as in other industries, there is a growing pressure for physicians to create a “web presence” that will provide entrance into the realm of e-health service delivery. This research has surveyed 511 physician practice web sites to assess how the promise of the technology compares to the reality. We found that 94-95% of sites were using one or more site design elements, and providing educational content that would be attractive to potential patients. However, only 73% of the sites provided the professional credentials of the health care providers. Functionality that would yield cost reductions was much less common with only 39% of the sites using online forms to collect information. Automation for either scheduling or patient accounts was rare. Additionally, few sites had the infrastructure that would allow them to monitor site activity or provide secure transactions for their patients. Only 23% of the sites protected themselves against charges of providing medical consultations without seeing the patients by using a legal disclaimer. Clearly, this sample of web sites suggests that web technology is not yet being fully utilized by physician practices.

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INTRODUCTION

In the face of escalating health-related expenditures, physicians are seen as one of the keys to controlling service delivery costs. Competition among providers and alteration of financial incentives via managed care are two of the cost containment methods that are currently impacting physician practices. In other industries we have seen web-based technologies employed in a variety of ways that both enhance an organization's ability to compete and reduce the costs of doing business. This research addresses the question of whether physicians are responding to competitive forces by using web-based technologies in the same way that other industries have.

Recently, the American Medical Association conducted a survey of its members asking questions about how they related to the Internet. Of the physicians responding to the survey, 27% indicated that they have established web sites for their practices. While the current number of sites may be small, there is every indication that the numbers are growing as more physicians avail themselves and their practices of free and low-cost web development services offered by numerous commercial health sites. The existence of a web site, however, does not magically lower costs or improve competitive position. Other features such as those that enable more efficient dissemination of educational materials, collection and maintenance of billing information, and improvement in communication with patients are some of the features required before the strategic potential of the technology can be realized. Specifically, the goal of this project is to examine the extent to which the surveyed sites have incorporated technical and functional features that could enhance competitive position, improve client recruitment and service, and/or lower the cost of doing business.

LITERATURE REVIEW

Since 1997, medical literature, both professional journals and physician oriented lay publications, abound with articles detailing how web sites are being used to great advantage by some of the larger practices and health plans. (for example, see Gilbert, 1998; Hagland, 1998; Bloom and Iannacone, 1999; Coile and Howe, 1999; Kalb and Branscum, 1999; Reents, 1999; Anon(a), 2000; Chin(a), 2000; Chin(c), 2000; Tyson, 2000). Although several surveys have addressed how web technology is currently being used, most are directed toward large health plans rather than independent physician practices. (Cochrane, 1999; Anon(a), 2000) Typically, case descriptions are used to demonstrate how web sites are revolutionizing the delivery of health care services.

Among the health related uses of the internet described in the literature are email (Widman and Tong, 1997; Eysenbach and Diepgen, 1998; Eysenbach and

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